CITY OF PASO ROBLES | CALIFORNIA

URBAN WATER MANAGEMENT PLAN

Final July 2021

TODD GROUNDWATER

City of El Paso de Robles

2020 Urban Water Management Plan

Final

July 2021

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EXECUTIVE SUMMARY

PURPOSE AND SCOPE

This 2020 City of Paso Robles Urban Water Management Plan (Plan or UWMP) has been prepared for the City to help guide the City's water management efforts for the next 20 years and beyond. It has been prepared in accordance with the requirements of the Urban Water Management Planning Act (California Water Code sections 10608 – 10657) and the Water Conservation Act of 2009, commonly referred to as SB X7-7 (California Water Code sections 10608 – 10608.64). This Plan builds on and updates the City's 2015 UWMP, accounting for changes in the California Water Code and local planning and water management efforts.

This Plan documents the City's sources of water supply, defines water demands, presents a water shortage contingency plan, and describes implementation of water demand management measures. The Plan also projects supply and demand to buildout and includes water loss reporting and energy use information. The 2020 UWMPs are required to include a drought risk assessment and report on progress toward the goal of achieving a 20 percent reduction statewide in per capita urban water use by the year 2020 per SB X7-7.

SUMMARY

The City's water service area generally coincides with City boundaries. The City currently provides water to approximately 10,760 residential and non-residential service connections. Currently, much of the City's water demand is for single-family residential uses; in the future, it is expected that commercial demands and other non-residential demands will increase relative to single-family residential demand. **Table ES-1** summarizes projected population and water demands to 2050 and the supplies projected to be used to meet those demands. The 2015 UWMP assumed buildout would occur in 2045 or later.

Demands. Demand projections were developed using representative water demand factors, anticipated future conservation, and City General Plan growth assumptions and buildout conditions. Projected water savings are included in these demand projections. The buildout population of 44,000 is projected to occur in 2050 or later. The 2015 UWMP projected that buildout would occur in 2045 or later. At buildout, residential and non-residential demand projections assume full development of available parcels. Projected non-revenue water is estimated at about seven percent of total water use based on the City's historical data. Unaccounted for urban water use in California generally ranges from 6 to 15 percent.

Table ES-1 City of Paso Robles Water Use Projections

	2020	2025	2030	2035	2040	2045	Buildout (2050 or later)
Population	31,221	34,400	37,700	39,900	41,900	42,800	44,000
Water Demands (AFY)	5,745	6,515	7,102	7,689	8,277	8,863	9,451
Water Supply Sources to Meet Demands (AFY)							
Basin Wells	954	2,126	2,333	2,550	2,378	1,797	2,127
River Wells	3,609	3,000	3,200	3,500	4,200	4,400	4,558
Nacimiento Water from Water Treatment Plant	968	1,120	1,120	1,120	1,120	2,017	2,017
Nacimiento Water from the Recovery Well	214	269	269	269	269	269	269
Recycled Water for Potable Offset	0	0	180	250	310	380	450
Total Supply	**5,745**	**6,515**	**7,102**	**7,689**	**8,277**	**8,863**	**9,451**

Note: *Supply amounts in Table ES-1 do not reflect total supply available to the City from each source, nor do they reflect any limits on the City's groundwater rights, but instead the water planned to supply projected demand.*

Supplies. The City of Paso Robles has historically relied on the Paso Robles Groundwater Basin and the Salinas River for its municipal water supply. This has been supplemented in recent years with water from Lake Nacimiento, and recycled water is planned for the future.

- **Basin Groundwater** – The City operates deep wells that pump percolating groundwater from DWR Basin Number 3-004.06 (Paso Robles Area Subbasin). The Paso Robles Area Subbasin has been designated as high priority and critically overdrafted by the State, requiring management under the Sustainable Groundwater Management Act (SGMA). As further noted in this Plan, the City plays a key role in carrying out the requirements of SGMA to ensure sustainable management of the Basin. The supply amounts in **Table ES-1** do not reflect the total groundwater supply available to the City from basin wells but the water planned to supply projected demands and account for balancing and management of supplies. Utilization of basin groundwater may vary from amounts shown depending on a variety of demand and operational factors.
- **Salinas River** – Salinas River water is used pursuant to appropriative surface water rights and permits issued by the State Water Resources Control Board. The City's Permit number 5956, as amended on November 6, 1981, allows the City to extract up to eight cubic feet per second (3,590 gallons per minute (gpm)) with a maximum extraction of 4,600 AFY.

- **Nacimiento Water Project (NWP)** – The City holds a 6,488 AFY delivery entitlement with the San Luis Obispo County Flood Control and Water Conservation District. The City currently utilizes Nacimiento water in three ways that diversify the City's water supply portfolio and improve supply reliability. First, the City treats Nacimiento water at its water treatment plant for direct delivery to customers. Second, water can be turned into the Salinas River channel and recovered through a specially designed well. Finally, in times of drought, the City can augment surface water supplies with Nacimiento water to maintain productivity of the City's river wells.

  Direct delivery of Nacimiento water requires treatment before introduction into the City's drinking water system. As such, the City completed the construction of a 2.4 million gallon per day (mgd) treatment plant in late 2015. The plant is typically operated five to nine months out of the year to satisfy peak season demands (providing 1,120 AFY to 2,017 AFY). If operated year-round at full capacity, the treatment plant can provide up to 2,688 AFY.

  In addition to direct deliveries, Nacimiento water can be utilized through the use of a dedicated recovery well. This operation allows Nacimiento water to be turned into the Salinas River channel and recaptured. It is estimated that the recovery well will be pumped at a rate of 400 gpm for five months out of the year, averaging 269 AFY.

  Finally, in times of drought Nacimiento water can be used to augment surface water supplies and improve water supply reliability. Similar to the operation of the recovery well, Nacimiento water can be turned into the Salinas river channel adjacent to City's river wells. This allows the river wells to operate when native supplies are low.

  Lake Nacimiento water is a reliable and stable source of water as jurisdictions in San Luis Obispo County have a contractual first priority to 17,500 AFY of the reservoir yield which has averaged 191,000 AFY between 1959 and 2015. Modeling of the Nacimiento project indicates that even during historical drought periods, the total annual entitlement to San Luis Obispo County can be delivered (Boyle, 2002 and Paso Robles, 2014b). This drought resilience has been demonstrated during recent dry years as the project has and continues to satisfy most delivery requests from project participants. While the NWP water is a reliable source of supply, there have been interruptions in its transmission from Lake Nacimiento. These pipeline problems are being resolved and it is anticipated that NWP water use will be more consistent and dependable moving forward.

- **Recycled Water.** The City's wastewater treatment plant is producing tertiary quality recycled water that will be distributed via the recycled water distributions system in the future. The distribution system is currently in the design phase and near completion. The recycled water distribution system will deliver recycled water to the east side of the City for golf course, park, and vineyard irrigation. Surplus water may be discharged to Huerhuero Creek that could benefit the groundwater basin (Paso Robles, 2021). Empirical data will be collected once project is operational.

  The recycled water amounts shown in **Table ES-1** are the amounts that would offset potable water demand. Additional recycled water that is not needed within City boundaries will be available for use outside City boundaries. Such uses could include

agricultural and vineyard irrigation and groundwater recharge. Agricultural and vineyard irrigation uses provide opportunities to maximize recycled water use while minimizing costs associated with transmission and distribution, and reducing groundwater pumping from the groundwater basin for irrigation purposes.

Senate Bill 7 Baseline and Targets. In accordance with SB X7-7, retail urban water suppliers must determine a baseline water use and target water use for years 2015 and 2020 to help achieve the goal of a 20 percent statewide reduction in urban water use by the year 2020. As reflected in the City's 2010 UWMP, the City's average base daily per capita water use over the selected 10-year Base Period (1999-2008) was 241 gallons per capita per day (gpcd). This is the average of the total annual water use divided by the population served for the years 1999 through 2008. Four methods are provided in SB X7-7 for calculating the 2020 water use reduction targets. Target Method 1 was selected by the City, in which the per capita daily water use target for 2020 is 80 percent of the base daily per capita water use, or 193 gpcd, which the City will continue to use as its water use target beyond 2020. As further detailed in this Plan, the City has achieved remarkable success with its water conservation efforts. The City's 2020 per capita water use is 164 gpcd, which is below the City's 2020 water use target of 193 gpcd.

Water demand management measures (including both active and passive conservation, and recycled water use to offset potable demands) are anticipated to maintain water use at 193 gpcd or less in the future.

Supply Reliability and Drought Impacts. The City has a diverse water supply portfolio, which increases overall City water supply reliability. However, there are many water supply reliability challenges, including legal, environmental, water quality, climatic, or a combination of these. Use of Nacimiento water by Paso Robles increases supply reliability. In addition, the City has developed policies that regulate non-City wells within City limits. These policies outline permit requirements for the development and use of private wells within City boundaries, establish policies for recycled water use, and extend the City's Water Shortage Contingency Plan to these private wells.

The Urban Water Management Planning Act requires tabulation of available water supply volumes in normal (average), single dry, and multiple dry years in five-year increments over a period of at least 20 years. In addition, the City has prepared a Drought Risk Assessment (DRA) to assess the City's ability to supply water to meet demands during a five-consecutive-year drought assuming it occurs in the next five years. The DRA is based on supply conditions during five dry consecutive years taking into account other considerations such as climate change, regulations, and other factors. The City's DRA determined that the City will have enough supply to meet demands if a five-year drought were to occur over the next five years.

The City has updated its Water Shortage Contingency Plan (WSCP) in response to new legislation in 2018. The WSCP provides a guide for actions the City can take during water shortages and improves the City's readiness to address supply shortages through various levels of water management requirements to conserve water. Included in the WSCP are measures to prevent waste and unreasonable use of water to ensure that water will be used in a reasonable and beneficial manner. The City's previous WSCP was updated to include response actions that align with six standard water shortage levels based on water supply conditions, as

well as shortages resulting from catastrophic supply interruptions. The WSCP also includes procedures for conducting an Annual Water Supply and Demand Assessment (Annual Assessment) that is to be submitted to DWR by July 1 of each year starting in 2022.

Several factors enhance the City's resilience to drought conditions. These include use of Nacimiento water to supplement the City's groundwater and Salinas River supplies, permanent prohibitions on water waste, a proven WSCP, ongoing conservation activities, and future use of recycled water. The City's water system and infrastructure also provide reliability. For example, City wells (river and basin) are dispersed throughout the service area protecting against a single catastrophe (such as a groundwater contamination), and thus disruption of more than four of the City's 19 wells is unlikely. The West and East Zones of the City water system are linked so that water can be conveyed from one zone to another, as needed.

1. INTRODUCTION AND OVERVIEW

1.1. BACKGROUND AND PURPOSE

This Urban Water Management Plan (Plan or UWMP) has been prepared for the City of Paso Robles to help guide the City's water management efforts for the next 20 years and beyond. It has been prepared in accordance with the requirements of the Urban Water Management Planning Act (California Water Code sections 10608– 10657) and the Water Conservation Act of 2009, commonly referred to as SB X7-7 (California Water Code sections 10608 – 10608.64).

Urban water suppliers that provide over 3,000 acre-feet of water per year or serve more than 3,000 connections are required to prepare an UWMP to support their long-term resource planning and to ensure that adequate water supplies are available to meet existing and future water demands. The plans must be prepared every five years and submitted to the California Department of Water Resources (DWR). The City of Paso Robles (City) has over 3,000 connections and has been preparing UWMPs at five-year intervals for over 25 years.

This Plan documents the City's sources of water supply, defines water demands, presents a drought risk assessment and water shortage contingency plan, and describes implementation of water demand management measures. The Plan also projects supply and demand to buildout and documents compliance with water use reductions required by SB X7-7. Additionally, the 2020 UWMPs are required to assess the reliability of water sources over a 20-year planning horizon and to report progress toward the goal of achieving a 20 percent statewide reduction in per capita urban water consumption by the year 2020, as required by SB X7-7.

1.2. URBAN WATER MANAGEMENT PLAN CHANGES

This Plan builds on and updates the City's 2015 UWMP (Todd, 2016), accounting for changes in the California Water Code and local planning and water management efforts. Pursuant to SB X7-7, the 2010 UWMP included the City's baseline per capita water use and developed specific water use targets to meet the 2020 goal of 20 percent water use reduction. The City met its 2015 Interim Urban Water Use Target as documented in its 2015 UWMP. The City also met its 2020 Urban Water Use Target as documented in Section 5, Baselines and Targets, of this Plan. To be eligible for State water grants or loans, retail water suppliers are required to comply with the SB X7-7 water conservation requirements.

Major changes since 2015 to the California Water Code that relate to retail water suppliers and affect water supply planning are summarized below.

1. **Five Consecutive Dry-Year Water Reliability Assessment**. The dry-year water reliability planning was modified from a multiyear time period to a drought lasting five consecutive water years.
2. **Drought Risk Assessment**. The Drought Risk Assessment (DRA) requires water supply reliability needs to be assessed over a five-year period from 2021 to 2025

that examines water supplies, water uses, and the resulting water supply reliability under a reasonable prediction for five consecutive dry years.

3. **Seismic Risk**. Seismic risk to various water system facilities and a mitigation plan are to be addressed in the UWMP. An important aspect of this provision is the intersection of water supply infrastructure planning with a county or regional hazard mitigation plan.
4. **Energy Use Information**. Readily obtainable information are to be provided on estimated amounts of energy for their water supply extraction, treatment, distribution, storage, conveyance, and other water uses.
5. **Water Loss Reporting for Five Years**. The UWMP is now to include the past five years of water loss audit reports.
6. **Water Shortage Contingency Plan (WSCP)**. WSCP preparation and periodic update is required. The WSCP now needs to include specific elements (e.g., reliability assessments, response actions, communication protocols). It is to be included in the UWMP but adopted and amended independently from the UWMP.
7. **Groundwater Supplies Coordination**. 2020 UWMPs are to be consistent with Groundwater Sustainability Plans (GSPs) in areas where those plans have been completed.
8. **Lay Descriptions**. UWMPs now require lay descriptions of fundamental determinations of the UWMP, especially regarding water service reliability, challenges ahead, and strategies for managing reliability risks.

1.3. UWMPs IN RELATION TO OTHER PLANNING EFFORTS

The UWMP's focus is to provide information on water management specific to the City. This Plan integrates regional planning efforts when appropriate. The City participates actively in regional groundwater basin monitoring, management and planning in cooperation with San Luis Obispo County, groundwater sustainability agencies, and other basin stakeholders. Listed below are recent key water management documents that pertain to the water resources of the area.

- Paso Robles Subbasin Groundwater Sustainability Plan (Montgomery, 2020)
- Public Draft Paso Robles Subbasin Water Year 2020 Annual Report (GSI, 2021)
- Draft sections of the Atascadero Groundwater Sustainability Plan for the Atascadero Groundwater Basin (GEI, 2021) [a final draft plan will be available in late 2021]
- DRAFT Regional Water Infrastructure Resiliency Plan for the San Luis Obispo County Flood Control & Water Conservation District (WSC, 2021), and
- Paso Robles Groundwater Basin Model Update (Geoscience, 2014).

Additional information regarding regional water supply planning is presented in Section 6, Water Supplies. In addition to its regional efforts, the City has established the following water resource goals for its water system:

- Improve water quality,
- Increase and diversify water resources,
- Increase reliability of water supplies,

- Reduce salt loading into the basin and thereby comply with regulatory mandates, and
- Anticipate regulatory requirements.

To attain these goals, the City recently:

- Constructed a surface water treatment plant to directly utilize water from Lake Nacimiento.
- Obtained full subscription to supply available to the City from the NWP.
- Upgraded its wastewater treatment plant to provide tertiary treatment to allow delivery of recycled water and improve effluent water quality.
- Developed the design for a recycled water distribution system that would allow the City to offset some potable water currently being used for landscape irrigation, and water used for agricultural irrigation within the City and in the region.
- Became a Groundwater Sustainability Agency (GSA) and entered into a Memorandum of Agreement with the four other GSAs overlying the Paso Robles Area Subbasin to prepare a Groundwater Sustainability Plan (GSP) for the Paso Robles Area Subbasin. The GSP was completed in January 2020 and technical update reports will be completed each year by April 1.
- Became a member of the Atascadero Area Subbasin GSA which is in the process of completing a GSP for the Atascadero Area Subbasin. The GSP is anticipated to be completed by August 2021.
- Began updates to the City's Water System Master Plan.

The Urban Water Management Plan documents advancement towards the City's water resources goals. Most notably, the Plan documents the quantity and quality of the City's water supplies, both current and future. The Plan also provides specific consideration of the reliability of City water supplies during normal and drought years and in emergencies and includes an updated Water Shortage Contingency Plan.

1.4. UWMP ORGANIZATION

While fulfilling California Water Code requirements, this UWMP is organized to be easily read and understood. It follows the recommended outline presented in the 2020 UWMP Guidebook (DWR, 2021). Electronic submittal of standardized forms is required. Consequently, this UWMP presents all the required retail water supplier tables even if a table is not applicable to the City. It also preserves the DWR-designated table numbers. The required tables follow the text in this UWMP. Additional informational tables are embedded in the text along with a simplification of some of the more important DWR-required tables. The tables embedded in the text have been numbered in a sequential order. The UWMP standardized tables extend to 2040, with 2045 being optional. This UWMP includes projections to 2045 or 2050. Buildout is projected to occur in 2050 or later.

A completed checklist indicating where specific UWMP requirements are addressed in this Plan is included at the end of Section 10. The Plan is laid out as follows:

- **Section 1, Introduction and Overview**, provides an introduction to UWMP requirements and provides an overview of related City water management planning efforts.
- **Section 2, Plan Preparation**, provides information on the City's process for developing the UWMP and outlines coordination and outreach activities.
- **Section 3, Water System Description**, describes the City's service area, climate, and population.
- **Section 4, System Water Use**, describes and quantifies the City's current and projected water use.
- **Section 5, Baselines, Targets and 2020 Compliance**, documents methods for calculating baseline and target water use and demonstrates compliance with the 2020 water use target pursuant to SB X7-7.
- **Section 6, Water Supplies**, describes and quantifies current and projected water supply sources. The City currently relies on surface water, groundwater, imported Lake Nacimiento water, and recycled water.
- **Section 7, Water Supply Reliability and Drought Risk Assessment**, describes the reliability of the water supply and projects the reliability out to 2045 for normal, single dry, and multiple dry years. It also contains a drought risk assessment.
- **Section 8, Water Shortage Contingency Plan**, presents the City's staged plan for dealing with water shortages. The complete Water Shortage Contingency Plan is in **Appendix D**.
- **Section 9, Demand Management Measures**, summarizes the City's efforts to promote and implement water conservation and reduce water demand through demand management measures.
- **Section 10, Plan Adoption, Submittal, and Implementation**, outlines the steps for Plan adoption and submittal as well as providing a discussion of the City's plan to implement the UWMP.

1.5. LAY DESCRIPTIONS

Presented below are lay description of terms and units discussed in the UWMP. It includes explanations of terms and definitions of units that can be used as a reference when reviewing the UWMP.

Description of Terms

Annual Assessment. Annual Water Supply and Demand Assessment that is to be submitted to DWR by July 1 of each year starting in 2022. It will include documentation of the projected supply and demand for the upcoming year and determination that supply will be sufficient, even during a dry year.

Apparent Water Losses. Nonphysical losses that occur when water is successfully delivered to the customer but is not measured or recorded accurately. It can include unauthorized use, meter inaccuracies, and data handling errors.

Climate Change. A significant and lasting change in the weather patterns over extended periods of time ranging from decades to millions of years.

Daily Per-Capita Water Use. The amount of water used per person per day. In the UWMP calculations, this is total water use within a service area, divided by population, and it is measured in gallons. It is also called gallons per capita per day (gpcd).

Distribution System Losses/Water Losses. Physical potable water losses from the pressurized water distribution system and the Supplier's storage facilities up to the point of delivery to the customer's system (e.g., up to the residential water meter) calculated using the American Water Works Association (AWWA) Method (see **Appendix B**). This is the sum of AWWA real losses and apparent losses.

Gross Water Use. A measure of water that enters the City's distribution system over a 12-month period (calendar year).

Nacimiento Water Project (NWP). A water project operated by the San Luis Obispo County Flood Control and Water Conservation District to deliver untreated water from Lake Nacimiento to communities in San Luis Obispo County. The City of Paso Robles holds a 6,488 AFY delivery entitlement for Lake Nacimiento water.

Non-Potable Water. Water that does not meet Title 22 Drinking Water Standards such as recycled water, remediated groundwater, or possibly untreated surface or groundwater supplies.

Non-Revenue Water. Difference between total water supplied and billed consumption. Typically includes:

- unbilled authorized consumption (e.g., water used for system maintenance)
- apparent losses (e.g., meter error), and
- real losses (e.g., leaks and theft).

Potable Offset. The amount of recycled water the City will provide that will replace potable water use.

Potable Water. Water that meets Title 22 Drinking Water Standards.

Recycled Water. Recycled water is wastewater that has been treated to a specified quality to enable it to be used again. As defined in Water Code Section 13050(n), recycled water means "water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource."

Safe Yield. Safe yield of a groundwater basin or aquifer system is defined as the amount of water that can be withdrawn from it without producing an undesired effect.

Tertiary Treated Water. Municipal wastewater that can be beneficially reused is classified by its level of treatment. As defined in Title 22 (CCR Section 60301.230), tertiary treated water is oxidized, filtered, and disinfected wastewater to achieve both bacterial and virus removal.

Water Energy Intensity. Water energy intensity is the total amount of energy, calculated on a whole-system basis, required for the use of a given amount of water in a specific location.

Water Use Sectors (as defined in the DWR UWMP Guidebook)
Note that the City of Paso Robles does not have all these water use sectors.

- **Single-Family Residential**. A single-family dwelling unit. A lot with a free-standing building containing one dwelling unit that may include a detached secondary dwelling.
- **Multi-Family Residential**. Multiple dwelling units contained within one building or several buildings within one complex.
- **Commercial**. A water user that provides or distributes a product or service.
- **Industrial**. A water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System (NAICS) code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.
- **Institutional and Governmental**. A water user dedicated to public service. This type of user includes, among other users, higher-education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.
- **Landscape**. Water connections supplying water solely for landscape irrigation. Such landscapes may be associated with multi-family, commercial, industrial, or institutional/governmental sites, but are considered a separate water use sector if the connection is solely for landscape irrigation.
- **Sales to Other Agencies**. These are water sales made to another agency.
- **Conjunctive Use**. A management strategy where surface water is managed in conjunction with an underground aquifer.
- **Groundwater Recharge**. The managed and intentional replenishment of natural groundwater supplies using man-made conveyances such as infiltration basins or injection wells.
- **Saline Water Intrusion Barriers**. Injection of water into a freshwater aquifer to prevent the intrusion of saltwater.
- **Agricultural**. Water used for commercial agricultural irrigation.
- **Exchanges**. Water exchanges are typically water delivered by one water user to another water user, with the receiving water user returning the water at a specified time, or when the conditions of the parties' agreement are met.
- **Surface Water Augmentation**. The planned placement of recycled water into a surface water reservoir that is used as a source of domestic drinking water supply.
- **Transfers**. A temporary or long-term change in the point of diversion, place of use, or purpose of use due to a transfer, sale, lease, or exchange of water or water rights.
- **Wetlands or Wildlife Habitat**. Water used for a managed environmental use to improve an environmental condition.
- **Other**. Any water demand that is not adequately described by the water sectors defined above. In this UWMP, the Other category could include unbilled, authorized consumption, such as water used for firefighting, line flushing, or other unbilled uses.

Definition of Units

AF = acre-foot or acre-feet

Volume of water in acre-feet. One acre-foot = 325,851 gallons. Amount of water that covers one acre area in one foot of water.

AFY = acre-feet per year

Volume of water in acre feet used in one year. In 2020, a typical single-family home in the City used about 0.3 AFY.

gpcd = gallons per capita (person) per day

Volume of treated water delivered in one year divided by the total service area population. This is the daily per-capita water use measured in gallons.

gpd = gallons per day

Volume of water in gallons used in one day. A typical single-family home in the City used about 270 gpd in 2020.

gpm = gallons per minute

Volume of water in gallons used in one minute.

HCF or Unit = one hundred cubic feet, typical customer billing units

1 unit = 100 cubic feet (HCF) = 748 gallons.

kWh = Kilowatt hour

A measure of electrical energy equivalent to a power consumption of 1,000 watts for 1 hour.

Milligrams per liter (mg/L)

Unit of mass concentration that shows how many grams of a certain substance are present in one liter of a usually liquid or gaseous mixture.

Million gallons per day (mgd)

Volume of water in millions of gallons used per day.

Commonly used Abbreviations and Acronyms (in addition to those above)

AWWA = American Water Works Association
CII = commercial, industrial, and institutional
DMM = Demand Management Measure
DRA = Drought Risk Assessment
DWSAs = Drinking Water Source Assessments
DWSAP = Drinking Water Source Assessment and Protection Program
DWR = California Department of Water Resources
ETo = evapotranspiration
GWMP = Groundwater Management Plan
HE = High Efficiency
GAMA = Groundwater Ambient Monitoring and Assessment
GSA = Groundwater Sustainability Agency
GSP = Groundwater Sustainability Plan
IRWMP = Integrated Regional Water Management Plan
LAFCO = San Luis Obispo County Local Agency Formation Commission
msl = mean sea level
MWELO = Model Water Efficient Landscape Ordinance
NPDES = National Pollutant Discharge Elimination System

NWP = Nacimiento Water Project
Plan = 2020 Urban Water Management Plan
PWS = Public Water System
RMS = San Luis Obispo County Resource Management System
SB X7-7 = Senate Bill X7-7, Water Conservation Bill of 2009
SLOFC&WCD = San Luis Obispo County Flood Control and Water Conservation District
SGMA = Sustainable Groundwater Management Act
SNMP = Salt Nutrient Management Plan
SWRCB State Water Resources Control Board
TCSD = Templeton Community Services District
TDS = Total Dissolved Solids
USGS = United States Geological Survey
UWMP = Urban Water Management Plan
WDR = Waste Discharge Requirements
WMOs = Water Management Objectives
WSCP = Water Shortage Contingency Plan
WWTP = Wastewater Treatment Plant

2. PLAN PREPARATION

This section summarizes the City's process for developing an UWMP, provides required tables, and outlines coordination and outreach activities.

2.1. BASIS FOR PREPARING A PLAN AND PLAN COMPLIANCE

The City is required to prepare an UWMP because it provides over 3,000 acre-feet of water per year (AFY) and serves more than 3,000 connections for municipal purposes. The City has prepared UWMPs every five years for at least the last 25 years. The City water system falls into the public water system (PWS) category because it provides drinking water for human consumption through pipes to 15 or more service connections. The City's service area generally coincides with City boundaries and, accordingly, this UWMP reports specifically on water use and supply available to the City. The City provides retail water only and does not wholesale water to other service providers.

Throughout the 2020 UWMP, units are in acre-feet and data are presented in calendar years, unless otherwise stated. Water volumes and other data are shown to the nearest acre-foot (AF). These values are accurate to one to three significant digits (depending on the measurement). All digits are retained in the text to maintain as much accuracy as possible during subsequent calculations, but results should be rounded appropriately. General agency and plan information is provided in the required DWR Tables 2-1, 2-2, 2-3 and 2-4 that follow the text.

2.2. COORDINATION AND OUTREACH

The City has provided for agency coordination and community participation in its urban water management planning efforts. In accordance with UWMP requirements, San Luis Obispo County was notified on March 3, 2021, more than 60 days prior to the public hearing, that the UWMP would be revised. The City will hold a public hearing after the circulation of the Public Draft Plan and prior to adoption of the Plan. In accordance with the UWMP Act, public notices will be published before the public hearing. Documentation of the public notices and public hearing are summarized in **Table 1** and included in **Appendix A**.

The Draft Plan was available to the public on May 17, 2021 for comment with a public presentation at a public hearing on July 8, 2021 at a regular City Council meeting. Plan copies were made available at City Hall and the City Library. An electronic version is available on the City's website (http://www.prcity.com).

In addition to preparation of the Plan, coordination with other agencies is ongoing in the Paso Robles area. For example, the City is one of five agency members of the Paso Basin Cooperative Committee that manages the preparation of annual reports for the GSP for the Paso Robles Area Subbasin. The Paso Basin Cooperative Committee typically meets on a bi-monthly basis. The City also is a member of the Atascadero Area Subbasin GSA and meets regularly with the GSP participants.

The City also participates actively in the Water Resources Advisory Committee, which provides advice to the County Board of Supervisors on water policy.

Table 1. Coordination Summary

Coordinating Agencies	Sent Notice of Intention to Adopt the Plan	Provided Draft and Final Plans
San Luis Obispo County Public Works Department	Yes	Via City Website
California Regional Water Quality Control Board – Central Coast	Yes	Via City Website
Atascadero Mutual Water Company	Yes	Via City Website
City of Atascadero	Yes	Via City Website
Templeton Community Services District	Yes	Via City Website
San Miguel Community Services District	Yes	Via City Website
Paso Robles Public Library/City Hall	-	Hard Copy of Final
Paso Robles Chamber of Commerce	Yes	Via City Website
Paso Robles Subbasin Groundwater Sustainability Agencies	Yes	Via City Website
Atascadero Basin Groundwater Sustainability Agency	Yes	Via City Website
Shandon San Juan Groundwater Sustainability Agency	Yes	Via City Website
General Public	Posted to City Website	Via City Website
DWR	-	Final via WUE Data Portal
California State Library	-	Mailed CD of Final

3. WATER SYSTEM DESCRIPTION

3.1. GENERAL DESCRIPTION

The City of Paso Robles is located in northern San Luis Obispo County (North County), on the eastern, inland side of the Santa Lucia Mountains. Paso Robles is situated on the upper Salinas River, which flows north toward Monterey County. Incorporated in 1889, the City now encompasses a total area of 12,739 acres. As illustrated in **Figure 1**, other communities near Paso Robles include Santa Margarita, Atascadero, Templeton, San Miguel and Shandon. The City is situated on the western margin of the Paso Robles Groundwater Basin, which is the water-bearing portion of the upper Salinas River drainage area.

The City has been serving water to City customers since the early 1900s. Since incorporation over 125 years ago, the City has grown considerably to its current area. There have been no changes in the City boundaries (no approved annexations) since 2015. The Olsen South Chandler and Beechwood Specific Plans were approved after 2015 resulting in increased densities from the base zoning to the densities approved by the respective Specific Plans. The Gateway Annexation has been recommended for approval by the City Council and is in the San Luis Obispo County Local Agency Formation Commission (LAFCO) review process. It is expected to be reviewed by LAFCO in the Spring of 2021. This annexation has not been included in this UWMP because LAFCO has not yet approved it. It is anticipated that any additional future annexations will be minimal and most City growth will occur as infill development.

3.2. SERVICE AREA AND LAND USE

The City's water service area generally coincides with City boundaries. The City provides water to approximately 9,367 residential, 993 commercial, industrial, and institutional, and 397 irrigation customers within the City of Paso Robles through approximately 172 miles of waterlines, four storage facilities, and six booster stations. It also has 19 wells, one micro-filtration water treatment plant, and two arsenic removal treatment systems. Currently, approximately 58.6 percent of the City's water demand is for single-family or multifamily residential uses; in the future, it is expected that commercial demands will increase relative to residential demand. **Figure 2** shows service area changes from the beginning of the City's SB X7-7 baseline period (1999).

A proposed development called the Gateway Project has been approved by the City and is being reviewed by LAFCO. If approved by LAFCO, the property will be annexed into the City and the General Plan amended with appropriate land use designations. The 170-acre site is northwest of the US Highway 101 and State Route 46 West interchange and just outside the southwestern boundary of the Paso Robles city limits. The Project will include two or three hotels, three commercial centers, a conference center, and up to 80 resort residential units.

Private groundwater wells are estimated to serve approximately 30 homes plus some agricultural and golf course land within City boundaries. On January 6, 2016, the City adopted the Private Well Policy Ordinance (Ordinance No. 1021 N.S. Relating to Recycled Water Service and Private Wells within the City) that provides restrictions on future use of

water from private groundwater wells within City boundaries. It also encourages the use of recycled water when it becomes available. The population associated with homes served by private wells is minimal and thus were not excluded when calculating the population for purposes of SB X7-7 compliance.

3.3. CLIMATE

Climate has a notable influence on water availability and demand on a seasonal and annual basis. During drought, influences include greater water demand for outdoor uses, specifically landscape irrigation, and less supply availability because of reduced precipitation and greater evaporation.

Representative climate data for the Paso Robles area are summarized below, including average monthly rainfall, temperature, and evapotranspiration (ETo). The area has a Mediterranean climate, with moderate temperatures year-round, dry summers and wetter winters. Most of the rainfall occurs between November and April.

Table 2. Climate Summary

Month	Average Rainfall[1] (inches)	Average ETo[2] (inches)	Average Temperature[3] (°F)
January	3.18	1.73	46.92
February	3.04	2.15	50.00
March	2.38	3.67	52.96
April	0.99	4.80	56.65
May	0.29	5.97	61.73
June	0.05	6.61	67.47
July	0.05	6.91	71.55
August	0.03	6.35	71.32
September	0.16	4.98	68.19
October	0.56	3.57	61.27
November	1.32	2.06	52.67
December	2.56	1.51	46.79
Average Calendar Year Total	**14.61**	**50.31**	**-**
Monthly Average	**1.22**	**4.19**	**59.04**

1. Precipitation at Paso Robles Station 046730 (Jan 1930-Dec 2020) (WRCC, 2021).
2. ETo=Average Evapotranspiration at CIMIS Station 163 Atascadero (CIMIS, 2021). For comparison, Title 23 Chapter 2.7 Model Water Efficient Landscape Ordinance has a value of 49.0 inches for Paso Robles based on earlier data.
3. Temperature at Paso Robles Station 046730 (Jan 1894-Dec 2020) (WRCC, 2021).

Figure 3 shows annual rainfall for the 1930 to 2020 period with average annual rainfall at 14.61 inches. Sections 4.5 and 6.8 discuss potential climate change impacts on City water demand and supplies.

3.4. POPULATION

The first major commercial activity in the North County was cattle grazing, followed by development of almond groves and most recently, extensive planting of vineyards. In addition to its agricultural base, Paso Robles also has a long history of tourism, based historically on development of local hot springs and more recently on wine touring. Other major factors affecting historical growth of the City included development of Camp Roberts (a large military base) during World War II and improvement of State Highways 101 and 46. Paso Robles remains the major service center for ranching and agriculture in the North County.

Three reservoirs have been developed in the area for flood control, water supply, and recreation; these are Santa Margarita Lake (Salinas Dam) on the upper Salinas River, Lake Nacimiento on the Nacimiento River near the San Luis Obispo-Monterey County line, as well as San Antonio Lake in Monterey County. These lakes are popular vacation destinations, and along with wineries and Mid-State Fairgrounds events, have contributed significantly to tourism in Paso Robles. Paso Robles also has attracted numerous retirees from Southern California metropolitan areas.

Table 3 shows the City's population in 2020 along with projections to buildout in five-year intervals. The population is expected to increase 37 percent between 2020 and 2045, an average rate of about 1.48 percent annually, and increase 41 percent between 2020 and buildout. The 2020 population estimate is from the Department of Finance (CDOF, 2021) and the 2025-2045 projections are from the City's General Plan Land Use Element Table LU-3B (Paso Robles, 2014a). The City's General Plan buildout population threshold is 44,000 residents and is projected to occur by 2050 or later. The 1980 to 2010 average household size was 2.66 persons according to the U.S. Census. The General Plan assumes that each dwelling unit will be occupied with an average 2.66 persons.

Future growth will be mainly infill development with the ratio of multifamily dwelling units to single family dwelling units increasing and the ratio of commercial and industrial to residential increasing.

Table 3. Current and Future Population

Population Served	2020	2025	2030	2035	2040	2045	Buildout (2050 or later)
	31,221	34,400	37,700	39,900	41,900	42,800	44,000

Same as DWR Table 3-1 following text

3.5. OTHER SOCIAL, ECONOMIC, AND DEMOGRAPHIC FACTORS

Other factors that could impact water management and planning include changes in City demographics, businesses and industry, income levels, unemployment, economic vitality and/or non-residential uses. The COVID-19 pandemic stay-at-home orders and business

shutdowns since March 2020 have had some impact on water demands. Between 2019 and 2020, commercial water use decreased by 87 AF, a 13 percent decline, while residential use increased by 229 AF, an increase of about 7 percent. Residential and non-residential demands are likely to return to pre-COVID-19 levels as residents return to conventional work schedules. The City has a diverse water supply portfolio and can respond to and adjust its water management strategies when needed. The process of updating its UWMP every five years will assist in identifying and planning for changes in economic, social, or demographic factors.

4. WATER USE

This section summarizes current and projected water use for the City of Paso Robles. The subsections below describe the factors affecting total water use, including system losses (non-revenue water) and climate change. Current water demand is provided by water use sector and projected to 2045 in five-year increments. City buildout is projected to occur by 2050 or later.

4.1. CITY WATER USE

4.1.1. Current Water Use

Recent historical water use is summarized below by customer type. Customer water use was organized according to the DWR-designated water use sectors (single family, multi-family, commercial, industrial, institutional/governmental, landscape, and other) using current billing system categories. The number of multi-family accounts is not the same as the number of multi-family units; in many cases, one connection supplies water to multiple units. **Table 4** summarizes water use by water sector for the last five years and also includes 2010 for comparison.

Table 4. Past and Current Water Use by Water Sector

Water Use (AFY)	2010	2015	2016	2017	2018	2019	2020
Single Family	3,435	2,536	2,543	2,748	2,777	2,594	2,727
Multi-family	573	540	539	548	566	541	638
Commercial	656	589	584	604	618	668	580
Industrial	154	218	320	360	356	311	508
Institutional/Governmental	91	294	239	258	321	354	288
Parks, Landscape Irrigation	840	508	577	689	707	684	690
Other	Included in irrigation	38	71	87	102	29	39
Non-Revenue Water	577	431	289	518	365	372	275
Total Water Use	**6,326**	**5,154**	**5,162**	**5,812**	**5,812**	**5,553**	**5,745**
Total Number of Connections	*10,276*	*10,627*	*10,682*	*10,711*	*10,730*	*10,768*	*10,766*

Note: The City does not supply water to additional DWR-designated water use sectors (other agencies, exchanges, transfers, saline water barriers, direct groundwater recharge, and conjunctive use) at this time or planned in the future and thus have not been included in the UWMP tables.

Between 2015 and 2020, the City has seen an increase of 139 connections and a water use increase of 592 AF. However, water use between 2015 and 2017 was less than normal in response to drought-related State-wide mandatory water use restrictions in effect in 2015 and 2016. The City Council had declared a Level 2 Condition under the City's Water Conservation and Water Shortage Contingency Plan in 2015 that required mandatory conservation in response to emergency State-mandated conservation requirements, and in

May 2017, the Council declared a Level 1 Condition under the City's Water Shortage Contingency Plan that removed the limits on landscape-watering schedules but did not end the City's permanent prohibitions on water waste, or long-term water conservation goals and programs.

The number and type of water service connections provide insight into different customers' water use, which can be useful in defining effective water conservation measures and making future projections. The Landscape category in **Table 4** includes commercial, school, park, and multi-family landscape irrigation that is metered separately; there are no significant agricultural customers for City water. The Other category consists of demands that do not fit descriptions for other use sectors; in the City's case, hydrant and construction water use are included in the Other category. The Non-revenue category in **Table 4** is the difference between metered production and metered consumption. Section 4.2 provides further details on water losses.

4.1.2. Projected Water Use

Water use projections are shown in **Table 5** in five-year increments to 2050. These include the projected recycled water use that is discussed in Section 6.5.2. The projections were developed using representative water demand factors, anticipated future conservation, and City General Plan growth assumptions and buildout conditions. Projected water savings are included in these demand projections.

Table 5. Water Use Projections

Water Use (AFY)	2025	2030	2035	2040	2045	Buildout (2050 or later)
Single Family	2,820	2,914	3,007	3,100	3,194	3,287
Multi-family	807	932	1056	1181	1305	1,430
Commercial	673	766	859	952	1044	1,137
Industrial	646	784	923	1061	1199	1,337
Institutional/Governmental	324	359	395	431	467	503
Parks, Landscape Irrigation	737	784	831	878	925	972
Other	53	68	82	97	111	126
Non-Revenue Water	455	495	536	577	618	659
Total Water Use	**6,515**	**7,102**	**7,689**	**8,277**	**8,863**	**9,451**

Derived from DWR Tables 4-2 and 4-3 following text. Irrigation totals include recycled water that offsets potable use.

Water demand factors were calculated for the City's various land use categories using metered consumption data that is representative of use within each customer category.

These were then reduced to account for projected water savings. Future water conservation mechanisms will affect existing and future development within each use category to varying degrees. Therefore, unique projections of water savings were used to develop specific duty factors for each customer category.

Future water savings in existing development are projected to result from improvements to indoor plumbing fixtures, outdoor landscape irrigation systems, and landscape plantings from natural replacements of fixtures and landscapes, etc. Water savings in future development will result largely from water efficient plumbing fixture and appliance standards, and from water efficient landscape standards. These projected water savings mechanisms and assumptions are described in Section 4.3. Descriptions of conservation measures are provided in Section 9. Demand factors for residential categories where then applied to the number of housing units projected at buildout and demand factors for non-residential categories were applied to projected acreage served at buildout.

Land use projections are based on City planning documents, including the 2003 update to the City's General Plan and subsequent updates to the Land Use Element and Housing Element (Paso Robles, 2014a and 2020). The buildout population of 44,000 is projected to occur in 2050 or later. At buildout, residential and non-residential demand projections assume full development of available developable parcels and assume that future vacancy rates will be similar to 2020. Projected non-revenue water is estimated to be approximately seven percent of total water use for 2025 through 2050. Section 4.2 provides additional discussion of non-revenue water and water losses.

Water conservation measures and other factors have reduced current per capita water use to 164 gallons per capita per day (gpcd) in 2020, below the City's SB X7-7 2020 water use target of 193 gpcd. Section 5 of this UWMP discusses the City's per capita water use and water use targets developed for compliance with SB X7-7. Future water conservation (including active and passive conservation) and use of recycled water to offset potable demand are expected to maintain the per capita use at the 193 gpcd target or less in the future. Per capita use in 2045 is projected to be 185 gpcd and at buildout (2050 or later) it is projected to be 192 gpcd. The moderate increase in per capita water use (from 164 gpcd in 2020) is partially due to the projected increase in non-residential development (mainly industrial) in relation to the increase in population growth.

4.2. DISTRIBUTION SYSTEM WATER LOSSES

For the 2020 UWMP, water suppliers are required to quantify distribution system losses for each of the five years preceding the plan update using the American Water Works Association (AWWA) water audit method. This water audit tracks all sources and uses of water within a water system over a specified period of time. The water audit provides a method to understand non-revenue. This understanding can guide strategies to reduce these losses. Information from the water loss audits will also be used in the future to compare to State Water Board water loss performance standards when these standards are established.

Several different types of water loss are estimated and reported in the AWWA water loss audits (**Appendix B**). AWWA "water losses" must be included in UWMPs. AWWA water

losses (**Table 6**) are the difference between water supplied and the sum of authorized consumption and include adjustments for meter inaccuracies. Water supplied is the total amount of water produced and distributed by the City. Authorized consumption is the metered water consumption and excludes water theft.

The City's water losses from its AWWA Water Audits are listed in **Table 6** for 2015 through 2019 and range from 157 AF (2018) to 366 AF (2015). **Table 6** also includes the percentage of water lost compared to the supply for each year. The loss percentages have been below 6 percent since 2016, indicating that the City's water losses are below average on an annual basis. Unaccounted for urban water use in California generally ranges from 6 to 15 percent (DWR, 1994). Section 9.1.5 discusses methods the City is applying to assess and manage distribution system losses.

Table 6. Water Loss Audit Reporting

Year	AWWA Water Loss (AF)	Percent of Losses to Total Water Production
2015	366	7.10%
2016	216	4.18%
2017	334	5.75%
2018	157	2.70%
2019	228	4.11%

From AWWA Water Audits (Appendix B and DWR Table 4-4 following text). Water Loss is apparent losses (e.g., meter error) plus real losses (e.g., leaks and theft).

The Non-revenue water category in **Table 4** (Past and Current Water Use by Water Sector) is the difference between metered production and metered consumption and could include main flushing, firefighting, water quality testing, water treatment plant losses, and fire flow tests.

4.3. FUTURE WATER SAVINGS

The City's water demand projections, summarized in **Table 5,** contain future water savings. In addition to permanent prohibitions on water waste and mandatory use restrictions during periods of supply shortage or water conservation mandates, the City promotes water conservation through a variety of programs, which are discussed in depth in Section 9. To meet the per capita demand targets, the City has focused efforts on several demand management measures (DMMs). The following measures are projected to be the City's greatest opportunities for water savings.

1. 2015 Model Water Efficient Landscape Ordinance / Landscape and Irrigation System Ordinance - The City's Landscape and Irrigation System Ordinance was updated in December 2015 to achieve water conservation at least as effectively as the State's 2015 Model Water Efficient Landscape Ordinance (MWELO). The updated City ordinance is projected to reduce typical landscape water demands for new residential development by more than 20 percent

relative to development that occurred under the 2010 ordinance and approximately 33 percent relative to the estimated base residential landscaping demands in 2013, which were largely from landscapes installed prior to the 2010 MWELO requirements. Reductions in non-residential water demands for new development are projected to be approximately 50 percent relative to estimated base non-residential landscaping demands in 2013.

2. California Energy Commission Title 20 appliance standards for toilets, urinals, faucets, and showerheads – The appliance standards determine what can be sold in California and therefore will affect both new construction and replacement fixtures in existing homes. The City has assumed that indoor water savings in existing residential and non-residential development from Title 20 standards will be 3 percent relative to estimated indoor water demands for these uses in the base year.

3. CALGreen Building Code - The CALGreen Building Code requires residential and non-residential water efficiency and conservation measures for new buildings and structures that will reduce the overall potable water use inside each building and structure by 20 percent. The 20 percent water savings can be achieved in one of the following ways: (1) installation of plumbing fixtures and fittings that meet the 20 percent reduced flow rate specified in the CAL Green Code, or (2) by demonstrating a 20 percent reduction in water use from the building "water use baseline." The practical representation of the savings in unit water demands from this code would be to reduce indoor baseline unit demands for recently constructed residential units downward by 2 to 5 percent, although this may be redundant with any reduction already represented by the Title 20 appliance standards. The City has assumed indoor water savings in new residential and non-residential development from CALGreen Building Code requirements will be 3 percent relative to estimated indoor water demands for these uses in the base year.

4. Public Information Programs - One of the cornerstones of an effective water conservation program is effective public outreach and education. Public information and outreach—which convey the need for efficient water use and show how customers can reduce water use—support all other elements of the program. While the benefits of public outreach are difficult to quantify in terms of water savings, the City recognizes that public outreach promotes water conservation by informing customers of the needs and benefits of conservation, and recommended methods of conserving water. Outreach can also foster understanding regarding how water conservation fits into the overall water management for the City. The City's public information and education programs consist of the following.

Direct Customer Outreach – the City provides direct customer outreach and water conservation assistance through the following:

- Leak assistance and direct outreach to customers when a leak is suspected
- Irrigation timer assistance
- Home water surveys which include review of historical water use data; inspections of indoor and outdoor water systems; provision of replacement shower heads, aerators, and toilet flap valves; and recommendations for correcting issues with fixtures or irrigation systems including a summary of findings and customer checklist.

School Education Programs – the City sponsors a school education program consisting of interactive class presentations and field trips, which correlate to the California school science standards. Presentations and experiences are available to grades K – 6 and are tailored to varying age groups, keeping children engaged in lessons and activities.

Water-wise Landscaping Information and Resources - The City offers a "Lawn-to-Landscape" workshop instructional DVD for check out from the City's Water Conservation Division at City Hall. It provides guidance in planning and executing a Water-wise landscape project by offering tips on landscape design, plant selection, drip irrigation, planting, and establishing plants. The City also participates in workshops promoting water efficient landscaping and provides materials for events. The City's website also provides water-wise landscaping resources to assist customers with converting grass lawns to drought tolerant landscapes.

5. Rebates and Incentives - The City offers rebates to homeowners or business owners who replace irrigated lawns with drought-tolerant plants on drip irrigation, artificial turf, or permeable paving. The City also offers rebates of up to $125 to homeowners or business owners who replace an older high flow toilet with new High Efficiency Toilet (HET) that uses 1.28 gallons per flush or less. During inspections for the landscape rebate, the City provides educational materials and resources to rebate program participants to assist them with plant selection, irrigation system improvements, ideas for reducing runoff, and related topics.

DMMs employed by the City are presented in Section 9.

In addition to DMMs, the City routinely updates water rates so that revenue from sales and service fees are sufficient to cover operations and maintenance costs associated with production, treatment, conveyance, and delivery of potable water. Progressive rate increases that occurred between 2016 through 2021 have reduced water demands, although it is difficult to estimate the actual amount with a high degree of accuracy. The City estimated water savings resulting from price increases using demand elasticity calculations and assumed a low elasticity factor. Gross water savings resulting from the planned water rate increase between 2016 and 2021 were estimated to be 9 percent relative to the base year. The schedule and magnitude of possible future rate increases beyond the 2020 planning period are unknown; therefore, demand reductions due to rate increases are limited to the 2020 planning period.

4.4. WATER USE FOR LOWER INCOME HOUSEHOLDS

State law (SB 1087 and Government Code section 65589.7) requires local water agencies and sewer districts to grant priority for service hook-ups to projects that help meet the community's fair housing need. In accordance with these requirements, policies and procedures are adopted by water and sewer agencies to provide priority service to new developments with affordable housing and these policies generally are updated every five years. The City's General Plan Housing Element (Paso Robles, 2020) addresses the City's housing needs for the 2021 to 2028 planning period, including the need for low-income housing. The City will continue to support low-income housing development. Future projected water use for lower income households is included in projected water demands as denoted in **Table 5**.

4.5. CLIMATE CHANGE

Potential climate change impacts relevant to water demand in Paso Robles may include:

- Increased water demand
- Increased air and water temperatures
- Decreased annual precipitation
- Increased drought frequency
- Increased storm severity
- Increased risk of wildfires
- Increased evapotranspiration (San Luis Obispo County, 2020b).

Notable potential climate change impacts relevant to water demands and water resources management include:

- Increased agricultural water demands due to reduced surface flows, reduced soil moisture, increased evapotranspiration rates, and longer growing seasons
- Increased seasonal water demand due to increased drought frequency and increased air temperatures
- Increased cooling and process water demand due to increased air and water temperatures and increased energy demands
- Decreased crop yields due to changes in growing seasons and heat patterns
- Increased difficulty meeting water curtailments due to increased drought frequency and increased water demands (San Luis Obispo County, 2020b).

A more detailed discussion of the impacts of climate change on demands and supplies is presented in Section 6.8.

5. BASELINES, TARGETS AND 2020 COMPLIANCE

As discussed above, SB X7-7 requires retail urban water suppliers to determine a baseline water use and establish water use reduction targets for years 2015 and 2020 to help achieve a 20 percent statewide reduction in urban water use by the year 2020. This section presents the City's baseline water use and 2015 and 2020 water use targets that were first established in the 2010 UWMP. It also demonstrates compliance with the 2015 and 2020 targets.

Compliance with SB X7-7 is verified by DWR based on its review of the SB X7-7 Verification Form submitted with the 2015 UWMP. The SB X7-7 Verification Form is a set of tables that presents the steps taken and data used to determine the City's baseline and water use targets. These tables have not changed from those submitted with the 2015 UWMP and included in **Appendix C**. A new set of tables called the SB X7-7 2020 Compliance Form is also required for the 2020 UWMP. It is a condensed version of the SB X7-7 Verification Form to show 2020 compliance calculations. The SB X7-7 2020 Compliance Form is also included in **Appendix C**.

5.1. BASELINE AND TARGETS

5.1.1. 10- or 15-year Baseline Period

The first step in determining the City's 2015 and 2020 water use targets was to select a 10- or 15-year Baseline Period ending between December 31, 2004 and December 31, 2010. The longer baseline period applies to a water supplier that met at least 10 percent of its 2008 retail water demand through recycled water. The City did not use recycled water in 2008, so a 10-year Baseline Period was selected. A representative period was used, namely, 1999 through 2008. Water use in 2009 and 2010 was atypically low because of Level 2 City-wide mandatory outdoor water use restrictions. The City has expanded in area over the base period; **Figure 2** shows land that was annexed into the City between 1999 and 2005. No additional land was annexed between 2005 and 2010. Only a small area (1.4 acres) was annexed between 2010 and 2015 as shown on **Figure 2**.

The Baseline Period is used to calculate a base daily per capita water use using the basic equation below. For each year of the Baseline Period:

Annual Total Water Use/Population Served = Daily Per Capita Water Use (gross)

Components of these calculations are discussed below.

5.1.2. 5-year Baseline Period

In addition to the 10- or 15-year Baseline Period, a water supplier also needs to select a 5-year Baseline Period that ends no earlier than December 31, 2007 and no later than December 31, 2010. Water use during the 5-year baseline period is used to determine a minimum required reduction in water use by 2020. The 2020 water use target must be at least 5 percent less than the 5-year Baseline Period per capita water use. The 2004 through 2008 period was used for the 5-year Baseline Period.

5.1.3. Service Area Population

Water suppliers must then determine the population served for each baseline year and for the 2015 compliance year. DWR offers several options for calculating the population. Use of California Department of Finance (CDOF) numbers is the most straightforward for cities if service area boundaries correspond by 95 percent or more with city boundaries. This method was selected because City boundaries and the City service area are within 95 percent of one another. The other methods involve detailed persons-per-connection calculations, an online population tool, or other methods proposed by the water agency if those methods are at least as accurate as the methods recommended by DWR.

As mentioned above, CDOF population estimates were used for 1999 through 2008 and 2015 with the exception of 2000, when census data were used as required by DWR (CDOF, 2016). Population estimates for the baseline years are shown in SB X7-7 Verification Table 3 in **Appendix C**.

5.1.4. Gross Water Use

Gross water use is the amount of water entering the distribution system. It includes not only direct residential water use, but also indirect water uses that benefit residents such as firefighting, park and school irrigation, commercial and industrial uses, and other municipal uses. Gross water use for the baseline years is shown in SB X7-7 Verification Table 4 in **Appendix C**.

5.1.5. Baseline Daily Per Capita Water Use

The final step of the baseline calculation is the determination of the base daily per capita water use for each of the baseline years. This is shown in the top portion of SB X7-7 Verification Table 5 in **Appendix C**. The average base daily per capita water use over the selected 10-year Base Period (1999-2008) was 241 gpcd. Annual daily per capita water use varied between 230 gpcd (2006) and 255 gpcd (2002) over the 1999 through 2008 Base Period depending upon weather and other factors. The 241 gpcd base daily per capita water use is used to calculate the 2015 and 2020 targets.

The average base daily per capita water use over the compliance 5-year Base Period (2004-2008) was 242 gpcd (see bottom portion of SB X7-7 Verification Table 5 in **Appendix C**). This value is used to confirm that the City's capita water use targets meet minimum reduction requirements of 95 percent of the 5-year Baseline Period per capita water use. The City's 2015 and 2020 water use targets (217 and 193 gpcd) meet minimum reduction requirements as they are less than 95 percent of the 5-year Base Period (0.95 x 242 = 230 gpcd).

5.2. 2015 AND 2020 TARGETS

Four methods are provided in SB X7-7 for calculating the 2015 and 2020 water use reduction targets, and SB X7-7 authorizes retail urban water suppliers to select which method to use in their sole discretion.

- Method 1: Eighty percent of the baseline per capita water use.
- Method 2: Per capita daily water use estimated using the sum of performance standards applied to indoor residential use, landscaped area water use, and commercial, industrial, and institutional (CII) uses.
- Method 3: Ninety-five percent of the applicable state hydrologic region target as stated in the 20 x 2020 Water Conservation Plan. The City of Paso Robles is in the Central Coast Hydrologic Region which has a Regional Target of 123 gpcd and a Method 3 Regional Target (95%) of 117 gpcd.
- Method 4: Savings by water sector in accordance with guidance developed by DWR.

Target Method 1 was selected, in which per capita daily water use in 2020 is 80 percent of the base daily per capita water use. This method is the most applicable to available data as well as the water use and demographics of the City. Target water use in 2015 should be 90 percent of the base daily per capita water use or 217 gpcd (241 x 0.90 = 217). Target 2020 water use per capita per day should be 80 percent of the base daily per capita water use or 193 gpcd (241 x 0.80 = 193 gpcd). For planning purposes, the City also applies the 2020 per capita water use target of 193 gpcd to 2025 period and beyond. These values are developed for the entire service area. The baselines and target water use numbers are summarized in **Table 7**.

Table 7. Baselines and Targets Summary

Baseline Period	Start Year	End Year	Average Baseline GPCD	Confirmed 2020 Target GPCD
10-15 year	1999	2008	241	193
5 Year	2003	2007	242	

Derived from DWR Table 5-1 following text.

5.3. 2015 COMPLIANCE DAILY PER CAPITA WATER USE

The City has achieved its interim water use reduction target for 2015. Water use restrictions have reduced 2015 per capita water use to 151 gpcd, well below the City's 2015 interim water use target of 217 gpcd and also below the 2020 compliance water use target of 193 gpcd. Data for the 2015 calculation are shown in the bottom row of SB X7-7 Verification Table 5 in **Appendix C**.

5.4. 2020 COMPLIANCE DAILY PER CAPITA WATER USE

The City also achieved its 2020 water use target of 193 gpcd. Water use per capita was 164 gpcd, well below the target of 193 gpcd. The 2020 calculation data are shown in SB X7-7 Clarification Table 5 in **Appendix C**. It was anticipated that water use would increase above 2015 levels when drought conditions ceased and mandatory water use restrictions were no longer in place. However, water use did not rebound to past levels because some of the reductions in water use resulted from permanent changes in water use and permanent requirements prohibiting water waste; the City's demand management measures (Section 9) and increases in water rates have also contributed to reductions in water use.

6. WATER SUPPLIES

In recent years, the City of Paso Robles has relied on groundwater, Salinas River water, and Nacimiento Water Project water for its municipal water supply as shown in **Table 8**. Recycled water is expected to be available within the next five years.

Table 8. Past and Current Water Supplies

Water Source (AFY)	2015	2016	2017	2018	2019	2020
Paso Robles Area Subbasin Wells	2,045	951	842	656	1,359	954
Salinas River – River Wells	3,021	2,448	3,336	3,710	3,603	3,609
Nacimiento Water Project-Water Treatment Plant	87	1,763	1,622	656	591	968
Nacimiento Water Project-Recovery Well	0	0	12	0	0	214
Total	**5,153**	**5,162**	**5,812**	**5,812**	**5,553**	**5,745**

Note: Supply amounts shown above do not reflect total supply available to the City from each source, nor do they reflect any limits on the City's groundwater rights, but instead the water utilized by the City to supply projected demand.

This section describes the current and projected water supplies available to the City, including a description of its Salinas River supplies, the groundwater basin, groundwater quality, and groundwater monitoring and management. This section also discusses Nacimiento Water Project (NWP) supply and recycled water.

Water volumes presented in Section 6 generally reflect average annual conditions. The impact of drought and other water supply constraints on the City's water supply are discussed in Section 7.

6.1. PURCHASED OR IMPORTED WATER

The City of Paso Robles holds a 6,488 AFY delivery entitlement for Lake Nacimiento water with the San Luis Obispo County Flood Control and Water Conservation District (SLOFC&WCD or District). In 1959, SLOFC&WCD signed an agreement with what is now Monterey County Water Resources Agency. The agreement entitles the District to no less than 17,500 AFY from Lake Nacimiento for uses in San Luis Obispo County. Of this amount, 1,750 AFY is set aside for lakeside uses. The NWP, completed in 2010, consists of approximately 45 miles of pipeline to deliver untreated water from Lake Nacimiento to communities in San Luis Obispo County. Lake Nacimiento and the NWP pipeline are shown

on **Figure 1**. Each participant in the NWP holds a contract with the SLOFC&WCD to receive annual deliveries as listed in **Table 9**. The District acts as a wholesaler of this supply.

Table 9. Nacimiento Water Project Entitlements

Participant	Total Delivery Entitlements (AFY)
City of Paso Robles	6,488
City of San Luis 0bispo	5,482
Atascadero MWC	3,244
Templeton CSD	406
County Service Area 10A (CSA 10A)	40
Bella Vista Mobile Home Park	10
Santa Margarita Ranch Mutual Water Company	80
Subtotal	**15,750**
Reserve Capacity	**-**
Lakeside Use	**1,750**
Total	**17,500**

NWP water use for 2015 through 2020 is shown in **Table 8** and ranged from a low of 87 AF in 2015 to a high of 1,763 AF in 2016. The treatment plant came online in late 2015 and water delivery issues (conveyance pipeline shutdowns) have limited deliveries. NWP water is a supplemental water supply for the City and will not replace other water sources. By maintaining its NWP supply separately from its Salinas River supplies and local groundwater supplies, the City is able to further diversify its water supply portfolio and increase overall water supply reliability. In order to directly use its NWP supply, the City constructed a 2.4 million gallon per day (mgd) surface water treatment plant which became fully operational in 2016.

In addition to direct deliveries, NWP water also can be utilized by the City through a recovery well. This operation allows NWP water to be turned into the Salinas River channel and captured through the recovery well. The recovery well typically operates at a rate of 400 gallons per minute (gpm) for about five months out of the year. Annual turnout amounts are shown in **Table 10**. Turnout amounts were greater in 2015, prior to completion of the Nacimiento Water Treatment Plant. Between 2015 and 2020, almost 5,000 AF have been turned-out into the river.

Some of the NWP water turned-out to the Salinas River is directly recovered and some is allowed to remain in the river to assist with the recovery of river water and to recharge the alluvial basin. In times of drought, NWP water can be used to augment surface water and improve water supply reliability. Similar to the operation of the recovery well, NWP water can be turned into the Salinas River channel adjacent to City's river wellfield. This allows the river wells to operate when native supplies are low.

Table 10. NWP Water Turned-Out to Salinas River

	NWP Water Turned-Out to Salinas River (AF)
2015	2,313
2016	660
2017	0
2018	862
2019	353
2020	806
Total	**4,995**

Use of Lake Nacimiento water confers water quality benefits to the City. Lake Nacimiento water has lower total dissolved solids (TDS) and hardness as compared to groundwater. Nacimiento water TDS concentrations are in the range of 150 to 300 milligrams per liter (mg/L), while TDS concentrations in City wells average over 300 mg/L.

6.2. SURFACE WATER

The City currently pumps Salinas River water from river wells pursuant to appropriative surface water rights and a permit issued by the State Water Resources Control Board. The City's Permit number 5956, as amended on November 6, 1981, allows the City to take up to eight cubic feet per second (3,590 gpm) with a maximum diversion of 4,600 AFY (January 1 to December 31). The permit designates a moveable point of diversion within a specific reach of the Salinas River.

The City has seven river wells, with one of these also acting as a Nacimiento water recovery well. Approximately 60 percent of the City's current water supply (2015-2020) comes from its shallow Salinas River wells in the Atascadero Area Subbasin. Annual pumping totals for the City's river wells between 2015 and 2020 have ranged between 2,448 AF (2016) to 3,609 AF (2020).

6.3. GROUNDWATER

Groundwater has been and will continue to be an important component of the City's water supply. In 2016, the Atascadero Area Subbasin was subdivided from the Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin (**Figure 1**). The City operates 12 deep wells that pump percolating groundwater from the Paso Robles Area Subbasin (DWR Basin No. 3-004.06). The Paso Robles Area Subbasin has not been adjudicated but it has been designated as high priority and critically overdrafted by the State, requiring management under the Sustainable Groundwater Management Act (SGMA). The City also has shallow river wells in the Atascadero Area Subbasin (DWR Basin No. 3-004.11) (see Section 6.2).

6.3.1. Paso Robles Area Subbasin

The Paso Robles Area Subbasin is the water-bearing portion of the upper Salinas River drainage area. The Salinas River system drains the basin area and surrounding uplands and flows north along the western edge of the drainage area. The Subbasin is the southernmost portion of the Salinas Valley Groundwater Basin and had previously been defined by DWR as extending into San Luis Obispo and Monterey counties. The northern boundary was modified to coincide with the San Luis Obispo-Monterey county line during the 2019 DWR basin boundary modification process.

Geology

The major aquifers (or water-bearing units) in the basin include alluvial deposits and the Paso Robles Formation. The alluvial deposits are up to 100 feet in depth and include recent stream-laid sands and gravels along the floodplains of the Salinas River and its tributaries, and older finer-grained terrace deposits along the Salinas River and Estrella River. Wells in alluvium typically produce in excess of 1,000 gpm (Fugro, 2002).

The Paso Robles Formation is the most extensive aquifer and consists of sedimentary layers extending from the surface to depths of more than 2,000 feet. It is typically unconsolidated and generally poorly sorted. The water bearing sediments in the basin are 700 to 1,200 feet thick and typically extend to sea level. Paso Robles Formation sediments are relatively thin, often discontinuous sand and gravel layers interbedded with thick layers of silt and clay. Wells generally produce several hundred gpm (Fugro, 2002).

Groundwater Elevations and Flow

In 2017, groundwater elevations ranged between 1,250 feet above mean sea level (msl) in the southeast portion of the Paso Robles Area Subbasin to about 500 ft msl east of the City of Paso Robles. Groundwater elevations are generally lower in the fall than spring. Groundwater flow is generally to the northwest and west over most of the Subbasin, except in the area north of the City of Paso Robles where groundwater flow is to the northeast toward a pumping depression between the City of Paso Robles and the communities of San Miguel and Whitley Gardens (Montgomery, 2020).

Groundwater Quality

A general measure of groundwater quality is total dissolved solids (TDS). For drinking water purposes, water with a TDS concentration of 500 mg/L or less is recommended but can be usable up to 1,000 mg/L. TDS concentrations range between 350 and 1,560 mg/L in the area of the basin that the City overlies (referred to as the Estrella Subarea) (Montgomery, 2020).

A survey of local groundwater quality was conducted by the United States Geological Survey (USGS) as part of its Groundwater Ambient Monitoring and Assessment (GAMA) Program (USGS, 2007). The USGS sampled eleven randomly-selected wells located along the major river valleys, including four in or near the City. While trace amounts of pesticides, arsenic, and boron were reported, no constituents of concern were detected above regulatory thresholds.

In general, City water quality is good, but has relatively high TDS and hardness. In response to the hardness, many residents use home water softeners. However, use of water softeners results in addition of salts to the City's wastewater. Nacimiento water is lower in hardness and TDS than groundwater and may reduce the use of residential water softeners. Reducing or eliminating the use of water softeners will help preserve the quality of local groundwater and advance the use of recycled water for irrigation.

City Wells and City Pumping

The City currently operates 12 deep wells that are dispersed across the City east of the Salinas River. All are screened in the Paso Robles Formation as are the many nearby rural residential and agricultural wells surrounding the City. A groundwater depression is centered in the Estrella subarea, reflecting agricultural, golf course, municipal, rural and other pumping. This pumping depression is characterized by declining groundwater levels which are also apparent in City wells. In some cases, groundwater levels have declined more than 100 feet since 1997. The Paso Robles Subbasin GSP (Montgomery, 2020) and Water Year 2020 Annual Report (GSI, 2021) identify project and management actions that address chronic declines in groundwater levels to help achieve groundwater sustainability in the Subbasin by 2040. Section 6.3.3 has more information on the Sustainable Groundwater Management Act.

Annual pumping totals for the City's basin wells between 2015 and 2020 are shown on **Table 8**. Because of the mandatory water use restrictions and successful conservation, water use has reduced since 2009. Amounts shown in **Table 8** do not reflect the total supply available to the City from each source, nor do they reflect any limits on the City's groundwater rights, but instead the water that the City used to meet demands under specific circumstances.

Groundwater Conditions

The most recent study of groundwater conditions is the Paso Robles Area Subbasin GSP (Montgomery, 2020). The GSP estimated that the historical sustainable yield of the Subbasin was 59,800 AFY (1981-2011) and the future sustainable yield was estimated to be 61,100 AFY. Groundwater use is greater than groundwater recharge and groundwater levels are declining in some parts of the Subbasin. The water budget developed for the Paso Robles Formation aquifer indicates that the amount of groundwater in storage is in decline and will continue to decline in the near future if there is no net decrease in groundwater demand on the aquifer (GSI, 2021). Projects and management actions have been identified to address these declines and to help achieve groundwater sustainability by 2040. The Sustainable Groundwater Management Act subsection in Section 6.3.3 provide more information on SGMA and projects and management actions.

6.3.2. Atascadero Area Subbasin

The Atascadero Area Subbasin was subdivided from the Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin in 2016 based on information that showed the Rinconada Fault is a significant barrier to groundwater flow (GEI, 2021). It has not been adjudicated and was reprioritized as very low priority basin by the State. The Atascadero Area Subbasin is a narrow northwest-trending trough that extends from the Santa Margarita area in the south

to the City of Paso Robles in the north (GEI, 2021). Principal aquifers in the Subbasin are the Alluvium and the Paso Robles Formation. The City has wells in the Alluvium which is a relatively continuous aquifer of sand and gravel that underlies the Salinas River and tributary streams. Groundwater quality is relatively good in the Alluvium and Paso Robles Formation (GEI, 2021). The City pumps Salinas River water pursuant to appropriative surface water rights and permits issued by the State Water Resources Control Board (see Section 6.2).

6.3.3. Groundwater Basin Monitoring and Management

The City is an active participant in groundwater basin monitoring and management planning and activities, in cooperation with San Luis Obispo County and other water users.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), which became effective on January 1, 2015, provides a framework for sustainable management of groundwater resources by local agencies, defined as a local public agency with water supply, water management, or land use responsibilities within a groundwater basin.

SGMA establishes a process and timelines for local agencies to achieve sustainable groundwater management in basins designated as medium or high priority by the DWR. The Paso Robles Groundwater Basin is on the following accelerated timeline because it is designated by DWR as critically overdrafted:

- Local agencies must form local groundwater sustainability agencies (GSAs) by 2017;
- GSAs must prepare and adopt groundwater sustainability plans (GSPs) by 2020; and
- Once GSPs are adopted, GSAs must implement them and achieve sustainability within 20 years.

In January 2015, the County of San Luis Obispo and Flood Control District Board adopted a SGMA Strategy to "establish community focused Groundwater Sustainability Agencies (GSA) based on cooperative interagency and stakeholder relationships in order to comply with SGMA requirements." Subsequently, four overlying GSAs were formed and the GSAs entered into a Memorandum of Agreement to prepare the Groundwater Sustainability Plan for the Paso Robles Area Subbasin. The overlying GSAs, called the Paso Robles Basin Cooperative Committee, are:

- City of Paso Robles
- County of San Luis Obispo (Paso Basin)
- San Miguel Community Services District
- Shandon - San Juan Water District.

The GSP (Montgomery, 2020) and an Annual Report (GSI, 2021) have been completed and are available on the Paso Robles Groundwater Communication Portal: http://pasogcp.com. The Portal also provides meeting information and updates on other SGMA-related activities in the Paso Robles Groundwater Basin. Additional information on the Paso Robles Groundwater Sustainability Plan can be found on the County's website: https://www.slocounty.ca.gov/Departments/Public-Works/Committees-

Programs/Sustainable-Groundwater-Management-Act-(SGMA)/Paso-Robles-Groundwater-Basin.aspx. To comply with SGMA, sustainability should be achieved by 2040.

As mentioned previously, the Atascadero Area Subbasin was subdivided from the Paso Robles Area Subbasin based on information that indicated the Rinconada Fault as a barrier to groundwater flow. The Atascadero Area Subbasin is identified by DWR as a very low priority basin and therefore not required to comply with SGMA. However, the Atascadero Area Subbasin GSA, of which the City of Paso Robles is a member, is in the process of developing a GSP (GEI, 2021) using grant funds provided by DWR. Draft sections of the Atascadero GSP are available for review at http://portal.atascaderobasin.com/.

Monitoring

A comprehensive monitoring program was developed for the Paso Robles Area Subbasin GSP. The GSP also includes a detailed description of existing groundwater monitoring efforts in the Subbasin. An existing network of 23 wells was identified for groundwater elevation monitoring with 22 wells screened in the Paso Robles Formation and 1 well screened in the Alluvial Aquifer well (GSI, 2021). These wells have been monitored biannually, in April and October, for various periods of record (GSI, 2021).

Water quality is monitored in the 41 public water supply wells in the Subbasin. In addition, water quality is also monitoring in 28 agricultural supply wells under the Irrigated Lands Regulatory Program (GSI, 2021).

Other Water Management Documents and Policies

Groundwater Management Plan. A Groundwater Management Plan (GWMP) was completed in March 2011 (GEI, 2011), prior to SGMA. It provided an overview of the water balance of the basin and identified basin management objectives (BMOs) and groundwater management activities focused on stabilization or maintenance of groundwater levels.

Integrated Regional Water Management Plan (IRWMP). The 2019 San Luis Obispo County Integrated Regional Water Management Plan Update (IRWMP) (San Luis Obispo County, 2020b) is a collaborative effort to manage all aspects of water resources in the region and focuses on sustainability. The IRWMP was first developed and adopted by multiple agencies in the County in 2005 and is updated and revised about every five years to keep the plan current by incorporating new information as it becomes available. It includes performance measures and a monitoring program to document progress towards meeting its specific goals and objectives.

Resource management strategies were defined related to water resources planning and management and a set of projects, programs, or policies were identified that local agencies can implement to manage water and related resources to meet the IRWMP objectives. The IRWMP has a 2019 IRWMP Project List that includes both planned projects and programs.

County Resource Management System and Resource Summary Report. The San Luis Obispo County Planning and Building Department is responsible for the County Resource Management System (RMS), which provides information to the County Board of Supervisors to guide decisions about balancing land development with needed resources (e.g., water, schools, and roads). Under the Resource Management System, County staff collects

available information, identifies resource problems, and recommends solutions to 1) expand the resource, 2) conserve the resource, or restrict/redirect development. The Resource Summary Report (RSR) provides a comprehensive biennial summary of the County's natural and human-made resources and recommends actions to address resource use by existing development and recommend improvements to resource infrastructure and efficiencies (San Luis Obispo County, 2020a).

City's Private Well Policy. On January 6, 2016, the City passed and adopted the Private Well Policy ordinance (Ordinance No. 1021 N.S. Relating to Recycled Water Service and Private Wells within the City). The ordinance outlines permit requirements for the development and use of private wells within City boundaries, establishes policies for recycled water use, and extends the City's Water Shortage Contingency Plan to these private wells.

NWP and Recycled Water. As discussed above, the City also has taken various other actions to diversify its water supply portfolio and add overall reliability to the City's current and projected water supplies. Those actions include construction of a water treatment plant enabling direct delivery of treated NWP water to customers, joining in full subscription of the NWP thereby securing more reliability for the City, and embarking on the recycled water program.

6.4. OTHER WATER SUPPLIES

Currently the City does not rely or plan to rely on long-term water supply projects for potable use not detailed in this UWMP, such as potential development of desalination or direct reuse of recycled water. There are no ocean water, brackish surface water, or brackish groundwater sources near the City. The City also has no planned or potential future water exchanges or transfers.

6.5. WASTEWATER AND RECYCLED WATER

This section discusses the volume of wastewater generated and treated by the City and the amount of recycled water proposed for beneficial use within the City's service area.

6.5.1. Wastewater

The City of Paso Robles owns and operates a wastewater treatment plant (WWTP), located at the northern end of the City along the Salinas River and releases the treated wastewater via a polishing channel into the Salinas River system. The WWTP service area currently coincides with City boundaries. The City's WWTP used to also treat wastewater from the northern portions of the Templeton Community Services District (TCSD) but by 2019, TCSD completed construction of a new sewer infrastructure to convey these flows to the Templeton wastewater treatment plant (WSC, 2019). The TCSD wastewater had accounted for about nine percent of the wastewater entering the City's WWTP.

The City's WWTP is classified as a Class IV Tertiary Treatment wastewater treatment and operates under National Pollutant Discharge Elimination System (NPDES) Permit No. CA0047953 and Waste Discharge Requirements (WDR) Order No. R3-2021-0001. It has a design and permitted average monthly flow of 4.9 million gallons per day (mgd). In 2020,

the average dry weather flow was 2.11 mgd and a total of 2,464 AF of wastewater was treated.

The WWTP was first built in 1954 and was expanded and upgraded with additional clarifiers and rock trickling filters in 1972. In the mid-1980s, the WWTP was expanded to include additional trickling filter and clarifier capacity and chlorination facilities. In 2015, the City completed a comprehensive upgrade to comply with updated State Water Resources Control Board (SWRCB) discharge requirements. Improvements included replacement of the trickling filter treatment process with activated sludge process configured for biological nutrient removal; improvements to ancillary processes; generation of electricity with biogas; equipment and facilities for the receipt of septage; and construction of an effluent polishing channel mimicking a creek that flows into the Salinas River. In May of 2019, the City completed construction of the new Tertiary Treatment Project which included the addition of flow equalization, cloth media filtration, and Ultraviolet (UV) light disinfection facilities to the treatment process. The plant has biogas engine generators that produce enough clean renewable energy to power nearly 29 homes for a year (Paso Robles, 2021).

In 2010, the plant treated 3,297 AF of wastewater. In 2015, significantly less wastewater was treated (2,688 AF), reflecting drought conditions and mandatory water use restrictions that were in place at that time. Wastewater flows per capita in 2010 and 2015 were 0.11 and 0.09 AF, respectively. In 2020, wastewater flow per capita was 0.08 AF. This is slightly lower than 2015 and likely reflects that TCSD wastewater (estimated to be about nine percent of the total flow into the WWTP 2015) is now treated at the TCSD facility and not by the City. In addition, indoor water conservation measures have been effective, and a rebound of indoor water use did not occur after mandatory water use restrictions were lifted in 2017. Wastewater flows at buildout are projected to be 0.09 AFY per capita based on an average annual flow of 3.62 mgd and a population of 44,000 at buildout (WSC, 2019).

6.5.2. Water Recycling

The City's WWTP is producing tertiary quality recycled water that will be distributed via the recycled water distribution system in the future. The distribution system is currently in the design phase and awaiting financing from the State's Revolving Fund (SRF) loan program. The recycled water distribution system will deliver recycled water to the east side of the City for golf course, park, and vineyard irrigation. Surplus water will be discharged to Huerhuero Creek to benefit groundwater (Paso Robles, 2021). Recycled water could provide up to 2,900-5,000 AFY of irrigation and discharge water inside and outside City limits (Montgomery, 2020). The City currently estimates that approximately 1,100 AFY would be used within City limits by 2035 to offset potable water use and private well use and 700 AFY or more may be used outside of City limits for irrigation.

Current and projected recycled water use is shown in **Table 11**. This is the amount of recycled water that would offset potable water demand. Additional recycled water that is not needed within City boundaries will be available for use outside City boundaries. Such uses could include agricultural and vineyard irrigation and potentially groundwater recharge by other entities. Agricultural and vineyard irrigation uses provide opportunities to maximize

recycled water use while minimizing costs associated with transmission and distribution, and reducing groundwater pumping for irrigation purposes.

Table 11. Current and Projected Recycled Water Use

Recycled Water Use (AFY)	2020	2025	2030	2035	2040	2045	Buildout (2050 or later)
Landscape Irrigation (potable offset)	0	0	180	250	310	380	450

Derived from DWR Table 6-4 following text. This table only shows potable offset of recycled water use. Additional recycled water use will offset private groundwater pumping within the City and outside the City boundaries.

As required, this UWMP includes a comparison of earlier projected use of recycled water to actual use (DWR Table 6-5 following text). The City's 2015 UWMP projected that recycled water use would begin in 2025[1]; therefore, the 2015 projections and 2015 actual use are the same (0 AF).

Actions to Encourage and Optimize Recycled Water Use

Actions to encourage water recycling include completion of the Recycled Water Master Plan (AECOM, 2014), passage of City Ordinance No. 1021 N.S. Relating to Recycled Water Service and Private Wells within the City, and most recently, completion of the Tertiary Treatment Project in May of 2019. The recycled water distribution system is currently in the design phase and awaiting financing from the State's Revolving Fund loan program. The City also promotes its future water recycling through a variety of educational activities, including a page dedicated to the City's recycled water program on its website.

The City supports school education, offering a water conservation program for elementary school children, which includes a field trip to the recycled water treatment plant.

DWR Table 6-6 (following text) summarizes the methods the City is planning to increase and encourage recycled water use. These include public outreach and potential building code modifications and new ordinances such as a mandatory use ordinance for future projects within the City limits. The City is currently in the design phase of its recycled water distribution system and is actively gathering information on potential recycled water users. The City's Recycled Water Program is part of the GSP-designated projects to reduce groundwater use and is supported by GSP participants. A private project is in the conceptual stages for a pipeline system to connect to the City's future recycled water distribution system and convey recycled water into the agricultural areas east of the City for irrigation use (GSI, 2021). The project anticipates blending recycled water with Nacimiento Water Project water, when available to reduce groundwater use.

[1] DWR Table 6-4 of the 2015 UWMP was revised in 2017 in response to DWR's request to only show potable offset of recycled water use. As a result, no potable offset was projected for 2020.

Urban non-irrigation uses may represent additional opportunities for beneficial use of recycled water; however, these uses are expected to have more stringent water quality requirements and if scattered across multiple city areas, could be very costly to serve. Because very few non-irrigation uses were identified by the City, the Recycled Water Master Plan focused on serving large irrigation demands, including golf course, agricultural, and other irrigation.

6.5.3. Other Supply Opportunities

As noted above, the City currently has no plans or opportunities to develop desalinated water within the timeframe of this UWMP. There are no nearby desalinated water treatment plants and the cost of transporting it to the City or constructing a treatment plant is prohibitive.

Apart from stormwater contributing to local surface water and possible groundwater supplies, the City is not currently planning to collect stormwater for direct potable use.

6.6. FUTURE WATER PROJECTS

The City has no other expected future water supply projects or programs that will provide a quantifiable increase to the City's water supply within the time frame of this UWMP except the addition of recycled water use as discussed in Section 6.5.2.

6.7. SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

The City's current (2020) and planned use of available water supplies are shown in **Table 12** and **Table 13**, respectively.

Amounts shown in **Table 12** and **Table 13** do not reflect the total supply available to the City from each source, nor do they reflect any limits on the City's groundwater rights, but instead the water that the City used or projects using to meet demands under specific circumstances. In 2020, 5,745 AFY was used, supplied primarily by the City's river wells.

In the future, the City's total water supply is projected to include four primary sources: groundwater through the basin wells, Salinas River water through the river wells, NWP water, and recycled water. Surface water and groundwater use will increase to meet future increasing demands while the other supply sources are projected to remain relatively constant. The projected 2050 demand is 9,451 AFY. This demand forecast is based on historical usage patterns for average years, projected usage patterns, and conservation measures to attain per capita water use targets developed for compliance with SB X7-7. Discussion of these supply sources is provided throughout Section 6.

Table 12. Water Supplies Used to Meet Demands in 2020

Water Supply	Description	Actual Volume (AF)	Water Quality	Total Right or Safe Yield
Groundwater	Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin (3-004.06)	954	Drinking Water	61,100 AFY (Sustainable Yield from GSP)
Surface water	Salinas River water through river wells	3,609	Drinking Water	4,600 AFY SWRCB Permit
Purchased or Imported Water	Nacimiento Water from Water Treatment Plant	968	Drinking Water	6,488 AFY Contract
Purchased or Imported Water	Nacimiento Water via Recovery Well	214	Drinking Water	Included in above
	Total	**5,745**		

Derived from DWR Table 6-8 following text.

Table 13. Projected Supply Sources to Meet Demands

Project Supply Use (AFY)	2025	2030	2035	2040	2045	Buildout (2050 or later)
Groundwater - Basin Wells	2,126	2,333	2,550	2,378	1,797	2,127
Surface Water - River Wells	3,000	3,200	3,500	4,200	4,400	4,588
Nacimiento Water from Water Treatment Plant	1,120	1,120	1,120	1,120	2,017	2,017
Nacimiento Water from the Recovery Well	269	269	269	269	269	269
Recycled Water (Potable Offset)	0	180	250	310	380	450
Total Supply	**6,515**	**7,102**	**7,689**	**8,277**	**8,863**	**9,451**

Derived from DWR Table 6-9 following text. Supply amounts shown above do not reflect total supply available to the City from each source, nor do they reflect any limits on the City's groundwater rights, but instead the water planned to supply projected demand.

As discussed in Section 6.5.2, recycled water use is currently anticipated to increase from approximately 180 AFY in 2030 to 450 AFY by buildout to offset potable uses. Additional recycled water use in City limits would replace private well pumping for irrigation. Additional recycled water would also be available for uses outside City boundaries. These

additional recycled water deliveries could include irrigation of golf courses, medians, vineyards, and other agricultural uses, offsetting groundwater pumping.

Table 13 does not reflect the total groundwater supply (basin wells) available to the City nor does it reflect any limits on the City's groundwater rights, but rather the water planned to be used by the City to supply projected demands and account for balancing and management of available supplies and ensuring long-term water supply reliability for the City. Pumping could increase or otherwise vary depending on factors that may influence the availability and use of other supplies. In recent years, basin wells have provided as much as 4,103 AFY (in 2007).

6.8. CLIMATE CHANGE IMPACT TO SUPPLY

Climate change factors having the potential to affect the City and its water supply include:

- Increased air and water temperatures
- Decreased annual precipitation
- Increased drought frequency
- Increased storm severity
- Increased risk of wildfires
- Increased evapotranspiration (San Luis Obispo County, 2020b).

Potential impacts relevant to water demands are presented in Section 4.5. Potential notable climate change impacts to water supplies and water quality are listed below, recognizing that some are not directly applicable to Paso Robles.

Potential Water Supply Impacts:

- Decreased groundwater recharge due to decreased precipitation and increased storm severity
- Increased water supply shortages due to decreased precipitation and increased water demands
- Increased seawater intrusion of coastal aquifers due to sea level rise (not applicable)
- Increased drought frequency and severity
- Decreased reliability of imported water supplies due to decreased snowmelt and increased water demands (not applicable)
- Increased difficulty meeting instream flow requirements due to decreased groundwater levels and precipitation (San Luis Obispo County, 2020b).

Potential Water Quality Impacts:

- Increased eutrophication and harmful algal blooms due to increased air and water temperatures
- Decreased assimilative capacity due to declining low flows
- Increased turbidity and other contamination concerns due to increased storm severity
- Increased risk of contamination due to increased wildfire frequency
- Increased sedimentation and erosion

- Increased saltwater intrusion due to sea level rise and declining low flows (San Luis Obispo County, 2020b) (not applicable).

Climate change is indicated to potentially intensify droughts in California. While drought is primarily a consequence of natural variability in global weather patterns (e.g., El Nino/La Nina), droughts in California apparently are intensifying because of climate change. A study estimated that between 8 to 27 percent of the soil moisture deficit associated with 2012 to 2014 drought can be attributed to climate change (Williams et al., 2015). According to the study, "there is widespread consensus that warmth has intensified the effects of the recent precipitation shortfall by enhancing potential evapotranspiration." Temperature increases are expected to continue and result in further warming-induced drying. Increased water surface and soil moisture evaporation and plant evapotranspiration will exacerbate future droughts though the amount is unknown.

The 2019 San Luis Obispo County Integrated Regional Water Management Plan Update (IRWMP) (San Luis Obispo County, 2020b), is a collaborative effort to manage all aspects of water resources in the region and focusses on sustainability. It focuses on strategies to improve the sustainability of current and future needs of San Luis Obispo County. The IRWMP was first developed and adopted by multiple agencies in the County in 2005, and then updated in 2007, 2014, and 2019.

As part of the IRWMP process, the County was divided into three IWRMP subregions and Climate Change Vulnerability Assessments were completed for the subregions. The Paso Robles area is in the North County subregion. A total of 35 water resources-related vulnerabilities were identified and separated into four priority categories: very high, high, medium, and low. Six very high priority vulnerabilities were identified:

- Declining seasonal low flows
- Drought-sensitive groundwater basins
- Drought-sensitive water systems
- Increased flood risk due to wildfires
- Insufficient instream flows, and
- Water supply from coastal aquifers.

In addition, an evaluation determined that the existing IRWMP objectives sufficiently captured the need to address the region's very high priority vulnerabilities (San Luis Obispo County, 2020b).

The City has developed a Climate Action Plan to reduce greenhouse gas emissions from City and community activities that also achieves other benefits such as lowering energy costs, reducing air pollution, supporting local economic development, and improving public health and quality of life (Rincon, 2013).

The Paso Robles Subbasin GSP (Montgomery, 2020) incorporated future climate change estimates into the future water budget using DWR-provided change factors representing potential climate conditions in 2030 and 2070. The future sustainable yield for the Subbasin was estimated to be approximately 61,100 AFY, which is similar to the estimated sustainable yield of 59,800 AFY for the historical base period (1981-2011). The GSP concluded that the sustainable yield similarities indicate that potential future changes in climate are not

projected to have a substantial impact on the amount of groundwater that can be sustainably used compared to historical conditions (Montgomery, 2020).

6.9. ENERGY USE

The 2020 UWMPs are now required to include readily available information on the energy used for providing water and wastewater to its customers. This includes the energy for pumping, diversion, conveyance, storage, treatment, and distribution of water and the energy for collection, conveyance, treatment and discharge of wastewater.

While the City has tracked its overall energy use in the recent years, it has not systemically parsed out all energy uses specifically related to the City's water supply and wastewater systems. Available data is incomplete or includes other energy uses and does not accurately represent the City's energy use related to water and wastewater at this time. The City is the process of collecting this data and anticipates having more complete information available in the future to include in the City's 2025 UWMP.

7. WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

7.1. WATER SERVICE RELIABILITY ASSESSMENT

7.1.1. Constraints on Water Supply

The City has a diverse water supply portfolio that increases overall City water supply reliability. However, various factors have the potential to affect the City's water supply, including legal, environmental, water quality, and climatic factors, or a combination thereof.

Legal

The City is taking steps to increase the reliability of its surface water and groundwater supplies. For example, and in addition to other efforts described herein, the City is key member of the Paso Basin Cooperative Committee that manages the preparation of annual technical updates to the GSP for the Paso Robles Area Subbasin. The City is also a member of the Atascadero Area Subbasin GSA and meets regularly with the GSP participants (see Section 6.3.3).

In addition, the City has developed policies that apply to the management of non-City wells within City limits. These policies outline permit requirements for the development and use of private wells within City boundaries, establish policies for recycled water use, and include private wells in the City's Water Shortage Contingency Plan. The policies also require that private wells be maintained and operated in a manner to prevent cross-connection with the City water system and be properly abandoned to prevent migration of surface contaminants to groundwater.

In 2013, a quiet title water rights lawsuit was filed by a small group of North County property owners in San Luis Obispo County Superior Court who argued that their overlying groundwater rights and right to continue pumping from the basin is equal or superior to the rights of the County and other governmental entities that also pump from the basin. The case was moved to the Santa Clara County Superior Court because of the court's experience with complex water law. A jury trial in 2018 found that public water suppliers had acquired prescriptive groundwater rights to the Paso Robles Groundwater Basin during times of groundwater shortage conditions. The case is ongoing.

Environmental

Environmental factors that could affect City's water supply may arise from increased pumping by other groundwater basin users. As noted above, DWR already has designated the Paso Robles Groundwater Basin as a critically overdrafted basin. SGMA regulation through the GSP (Montgomery, 2020) and subsequent annual reports (GSI, 2021) will guide the use of groundwater in the Paso Robles Area Subbasin with the goal of sustainable management of groundwater resources to prevent SGMA-defined undesirable results (e.g., chronic lowering of groundwater levels, reduction of groundwater storage, seawater intrusion, degraded water quality, land subsidence, and surface water depletions with adverse impacts on beneficial uses.)

The GSP establishes Sustainable Management Criteria and subsequent projects and management actions to avoid significant and unreasonable undesirable results related to chronic lowering of groundwater levels, reduction of groundwater storage, degradation of groundwater quality, land subsidence affecting land use and depletion of interconnected surface affecting beneficial use.

Catastrophic

Catastrophic events such as earthquakes, power outages, or transmission pipeline interruptions could affect supply in the short term as repairs are made to potentially damaged facilities (e.g., storage tanks, pipelines, wells). Heat waves and risk of wildfire have resulted in power outages in Paso Robles that can temporarily disrupt water supply. The City has backup generators at some but not all City wells. In the past, the City has rented additional generators during power failures.

In addition to the Water Shortage Contingency Plan (Section 8 and **Appendix D**), the City has a Multi-Hazard Emergency Response Plan (Paso Robles, 2019a) to respond to emergencies affecting water system operation. The City also has a Local Hazard Mitigation Plan (Wood, 2019) that assesses risks posed by natural and human-caused hazards and includes a mitigation strategy for reducing the City's risks. These documents are appendices to the City's Water Shortage Contingency Plan (**Appendix D**). The City has also prepared a Community Wildfire Protection Plan (Paso Robles, 2019b) that addresses City fire protection planning efforts to minimize wildfire risk to watershed lands, assets, firefighters, and the public.

Water Quality

It is not anticipated that the current or projected quality of surface water, groundwater, NWP water, or recycled water will affect the volume of water available for use by the City. Nacimiento water improves the quality of the City's water supply with respect to lowering the total dissolved solids (TDS) content of the supply (see Section 6.1 for discussion).

The City has improved its wastewater quality through delivery of high-quality NWP water, programs for reduced use of water softeners, source control for industrial dischargers, and upgrades to the City's wastewater and water recycling plant.

While all but one of the Salinas River wells are clustered in two well fields, the remaining City wells are distributed widely. Accordingly, the response to contamination of a well field or one or more wells would be cessation of pumping in the affected wells and greater temporary reliance on the remaining wells (as well as NWP water and recycled water supply as applicable). Wellhead treatment is also an alternative that could be implemented in response to a specific water quality issue. Currently, the Ronconi Well Field has a microfiltration wellhead treatment system and Sherwood 9 and Sherwood 11 wells have treatment systems to remove arsenic and hydrogen sulfide.

The City's water supplies are potentially vulnerable to water quality degradation from agricultural sources (including irrigation return flows and animal operations), urban and industrial contaminant sources, and wastewater sources including on-site septic systems. Despite these potential vulnerabilities, all water supplied by the City consistently meets all applicable drinking water standards.

The potential for contamination of City wells is reduced through preparation of a Drinking Water Source Assessment and Protection Program (DWSAP), a federally-mandated program being coordinated by the California State Department of Health Services. The City has prepared Drinking Water Source Assessments (DWSAs) for all of its wells. For each well, the DWSAs:

- Delineate source protection areas for both surface water and groundwater;
- Identify all potential sources of significant contamination in source protection areas; and
- Determine the susceptibility of water sources to contamination within protection areas.

Additionally, the City has employed several protection measures to reduce potential for contamination which have included increased monitoring, and abatement or remediation of identified sources of potential contamination. These activities, and the regional policies and ongoing programs listed below, directly or indirectly reduce the vulnerability of the City's supplies to contamination or the potential for contamination:

- City and County ordinances prohibiting discharge of contaminants and pollutants
- City and County code enforcement
- City's industrial waste, and pretreatment and source control programs
- Stormwater pollution prevention programs
- Strict adherence to DWR well abandonment procedures for public and private wells.

The City's Water Shortage Contingency Plan (Section 8 and **Appendix D**) can be used if unforeseen water supply interruptions occur due to water quality problems. Water supply wells are dispersed throughout the City and it is unlikely that more than one cluster of wells would be impacted at the same time. As mentioned before, the City's diverse water supply portfolio greatly bolsters overall water supply reliability.

With regard to regional groundwater quality, the Salt/Nutrient Management Plan (SNMP) for the Paso Robles Groundwater Basin (RMC, 2015) has recently characterized groundwater basin conditions, documented salt and nutrient sources, and estimated loading with a focus on TDS, chloride and nitrate. The SNMP indicated that overall groundwater quality was generally stable and could be improved with additional use of NWP supply. Reduction of salt loading has been a long-term goal of the City, which has pursued the reduction of home water softener use, strategic use of City wells with lower salt concentrations, and implementation of an industrial waste discharge ordinance.

Climatic

The climatic events most likely to affect water supply are droughts, which are addressed in other sections of this UWMP by examining historical droughts and considering their potential impact on current and future water supply and demand. Future climate change can bring additional challenges to water supply management, which have been explored recently through the 2014 IRWMP Climate Change Vulnerability Assessments (see Section 6.8 for a detailed discussion).

While the City's surface water supplies are not dependent on snowmelt (which is most likely to be affected by climate change and global warming), effects of climate change may include evaporation from Lake Nacimiento and increased evapotranspiration losses, including increased irrigation water demand. Effects on the water system of increased irrigation demand can be minimized through water conservation measures and provision of recycled water.

7.1.2. Year Type Characterization

The Urban Water Management Planning Act requires that each water supplier provide an assessment of the reliability of its water supply during normal, dry, and multiple dry years. This section considers the impact on water supplies of two types of drought, a single extreme drought year and a multiple dry year drought (defined as a drought lasting five consecutive years). In addition, a catastrophic water shortage could occur, for example, as a result of earthquake damage, regional power outage, or water quality emergency. This section presents the City's response to potential water shortages, including catastrophic water supply interruption and drought.

As detailed above, the City overlies a large groundwater basin. All of this water cannot be practically extracted, but the volume that can be used during drought is sizable. This is predicated on available well capacity to extract the water and also on replenishment of groundwater during wet years and stabilization of water levels over the long term in response to SGMA regulation. The key issue with regard to short-term shortages is not the absolute availability of supply. Instead, drought issues involve the available pumping capacity of wells and the impact on wells of water level declines during the shortages. For example, long-term regional water level declines amplified by increased pumping for irrigation during drought could result in gradual reduction of well production or exposure of the well screens causing loss of pumping efficiency and/or loss of saturated thickness in the aquifer resulting in reduced well yield.

Average Year

Rainfall has averaged 14.61 inches during the 1930 to 2020 period (**Figure 3** - Station 046730). The year 2018 was selected to represent an average year in the UWMP because its rainfall was 14.91 inches, and it is representative of current water supply and demand conditions.

Single-Year Drought

Area rainfall is variable, and since calendar year 1950 has ranged from 2.78 inches (2013) to 27.95 inches (1995). In the past 65 years, six years have been marked by rainfall less than 50 percent of normal or 7 inches (1953, 1984, 1985, 1989, 1990, and 2013). As reported in past UWMPs, basic review of groundwater hydrographs for City wells suggests that one or even two consecutive extreme dry years did not have a discernable impact on groundwater levels in the City's groundwater wells. Hydrographs from the City's river wells along the Salinas River also showed little change in response to single-year droughts, probably reflecting recharge from the Salinas River that occurs even in drought years plus some limited groundwater storage in the alluvial aquifer along the river. Water levels in the City's

groundwater wells have been dropping due to regional water level declines in the basin. The impact of single year or multi-year droughts can amplify the effects of regional groundwater level declines, resulting in further lowering of well production levels. Single year droughts have not significantly affected the City's wells. However, droughts with durations of 3, 4, or 5 years may have more noticeable effects.

In response to continuing groundwater level declines the City must regularly rehabilitate existing wells in order to maintain production capacity. In addition, in June 2009 the City adopted a Water Conservation and Water Shortage Contingency Plan (Ordinance No. 957 N.S.) which has been updated several times since and is in Chapter 14.02 of the City's municipal code. This plan establishes mandatory and permanent water management measures to promote efficient use of water and to prevent waste. The plan outlines a staged approach to dealing with potential water supply shortfalls from 10 to 50 percent. In June 2009, the City initiated mandatory Level 2 outdoor water use restrictions during the summer months. These restrictions were in effect until 2017 in order to comply with state mandated conservation requirements and were successful in reducing demand. An updated Water Shortage Contingency Plan is discussed in Section 8 and is in **Appendix D**.

Peak season demands have declined some 25 percent in recent years. Seasonal peaks may continue to decline as the City continues to implement its conservation and recycled water programs.

Multi-Year Drought

DWR guidelines suggest that a multiple dry year period should represent the lowest average water supply availability for a consecutive multiple year period (now defined as five or more consecutive dry years). The five-year period between 2012 and 2016 was marked by below-average rainfall in the City, averaging 9.8 inches overall (67 percent of normal) (see **Figure 3**).

Hydrographs from the GSP Annual Report (GSI, 2021) indicate that groundwater levels continued to decline during this time period. The GSP (Montgomery, 2020) analyzed the change in groundwater elevations between 1997 and 2017 and determined that more than 80 feet of decline occurred in some places during this period with the largest decline east of Paso Robles, near Creston, and in the southeastern portion of the basin.

The City has been able to withstand droughts like that of 1987-1991 and 2013-2015; however, prior to NWP water being available to the City there was little margin for operational problems or for notable growth in water demand. As discussed above, water use in the City during the 2013 to 2016 period decreased substantially due to mandatory water use restrictions. NWP water is now available to the City to diversify its supply and reduce the impacts of drought on its supply.

7.1.3. Supply and Demand Comparison

The Urban Water Management Planning Act requires tabulation of available water supply volumes in normal (average), single dry, and multiple dry years over a minimum 20-year projection. The City has relied on groundwater from the Paso Robles Groundwater Basin, water from the Salinas River, and more recently, NWP water to satisfy water demands that

have included both extreme dry years (such as 2013) and prolonged severe droughts such as the 1984 to 1990 drought and the more recent 2012 to 2016 drought. The City adopted a revised Water Conservation and Water Shortage Contingency Plan in 2009. During prolonged drought conditions, the City has imposed mandatory conservation measures, particularly during summer months, to manage peak season demands or satisfy State-mandated conservation. In 2015, the City amended the Water Conservation and Water Shortage Contingency Plan in response to the State Board's statewide emergency conservation regulations and kept Level 2 water use restrictions in place to comply with the state-mandated conservation requirements. In 2017, the City declared a Level 1 Condition that removed the limits on landscape-watering schedules but did not end the City's permanent prohibitions on water waste, or long-term water conservation goals and programs. In sum, the City's mandatory use restrictions and conservation programs have reduced gross per capita demand from 230 gpcd in 2007 to 151 gpcd in 2015. Gross per capita demand is 164 gpcd in 2020.

DWR Table 7-1 (following text) lists the year(s) used in this Plan to represent normal, single-year, and multiple-dry year periods. As indicated in DWR Table 7-1 (also see **Figure 3**), 2018 was considered an average precipitation year, 2013 was a representative single-dry year, and 2012 through 2016 were multiple dry years as discussed above. Water production in 2012 through 2016 was reduced in response to the mandatory water use restrictions.

On an annual basis, the City has been able to provide sufficient supplies to meet demand during normal, single-dry, and multiple-dry year periods. Because historical annual pumping has not been greatly affected by drought, the percentage of supply is considered 100 percent of normal.

DWR Table 7-2 (following text) compares water supply to water demand in five-year increments between 2020 and 2045 for a normal year. Supply totals are the supply that will be used to meet demands.

DWR Table 7-3 (following text) shows supply and demand for single year droughts in five-year increments between 2020 and 2045. Though customer water use in drought years generally increases as a result of increased irrigation, water use in a drought year was assumed to be the same as a normal year because water use restrictions would limit additional water use, especially for landscape irritation. Supply totals are the supply that will be used to meet demands. For the reasons explained above, the amount of water supply available in times of drought is considered to be the same as that available during normal years, and within historical pumping volumes (DWR Table 7-2 following text). During dry periods, the City periodically has faced challenges in meeting peak summer demands. However, several factors reduce the potential for these issues to occur in the future and add resilience to drought conditions. These include use of NWP water for direct potable uses (when treated) and augmentation of Salinas River supplies, permanent mandatory water use restrictions, ongoing conservation activities and lower community water use despite growth, and future use of recycled water, all of which are discussed throughout this UWMP.

DWR Table 7-4 (following text) shows supply and demand during multiple-dry year periods for five-year periods between 2020 and 2045. In this table, supply values were kept the same as those for normal years (DWR Table 7-2 following text). Demand values were

assumed the same as those in normal and single dry years (DWR Tables 7-2 and 7-3 following text) for the same reasons discussed in the previous paragraph for a single year drought.

7.1.4. Description of Management Tools and Options

An urban supplier is to describe water management tools and options used to maximize resources and minimize the need to import water from other regions. The City maximizes use of its portfolio of supplies through several means. It has upgraded its wastewater treatment plant to provide tertiary treatment to allow delivery of recycled water which will reduce the reliance on other water resources. It has several ongoing and planned demand management projects and programs that are summarized in Chapter 9. Public outreach and education, coupled with demand reduction programming like rebates and home surveys, can decrease long-term demand and increase reliability. The City does not import water from other regions but does use NWP water collected from a watershed in both San Luis Obispo and Monterey counties.

The City will continue to increase its overall supply reliability by remaining actively involved in local and regional groundwater management efforts, improving its ability to access and utilize NWP water, and planning for the increased use of recycled water both within and outside the City. The City also continues to pursue its many water conservation efforts, including the actions and measures discussed in Section 9.

7.2. DROUGHT RISK ASSESSMENT

The City has prepared a Drought Risk Assessment (DRA) in accordance with Water Code Sections 10612 and 10635. The purpose of the DRA is to assess the City's ability to supply water to meet demands during a five-consecutive-year drought assuming it occurs in the next five years. The DRA is based on supply conditions during five dry consecutive years taking into account other considerations such as climate change, regulations, and other factors. These supply conditions are then assumed to occur over the next five years.

The DRA analysis can provide information to assist with water supply management during drought conditions; it also provides insight on the degree of response needed in the City's Water Shortage Contingency Plan (WSCP) to address potential supply shortages. The evaluation allows proactive steps to be taken to reduce risks during the next actual multiyear drought.

The DRA evaluation is to be based on the five-year drought between 2012 and 2016 and examine the use and supply over the next five years. It is summarized on DWR Table 7-5 (following text).

7.2.1. Data, Methods, and Basis for Water Shortage Conditions

The data used to complete the DRA are documented in this UWMP and briefly summarized below along with assumptions and limitations of the DRA.

Demand Projections. Demand projections are based on projected water use assumptions discussed in Section 4.2.1 that were developed from representative water demand factors,

anticipated future conservation, and City General Plan growth assumptions and buildout conditions. Water use between 2020 (known) and 2025 (projected) was estimated using a linear extrapolation.

Supply Projections. Supply conditions during the most recent five-year drought of 2012 to 2016 were initially selected as the basis for the DRA. Rainfall was below average during this time period, averaging 9.8 inches overall (67 percent of normal) (see **Figure 3**). This time period also includes the driest year of record, 2013, which had only 2.78 inches of rain. However, these supply projections represent water used to meet demands, not the amount of supply available. Water production in 2012 through 2016 was reduced in response to mandatory water use restrictions.

In late 2015, the City began using NWP water directly as a new supply source. The City used 968 AF of NWP water in 2020 and anticipates using 1,120 AF in 2025. Additional NWP water (214 AF in 2020 and a projected 269 AF in 2025) will be turned out into the Salinas River for recovery. NWP water was not available for direct use by the City during the 2012 to 2016 time period, so the 2012 to 2016 drought supplies used are not representative of supplies available in 2021 to 2025. For this reason, the available 2021 to 2025 supplies in the DRA were increased with NWP water. Furthermore, the City can pump additional groundwater during droughts if needed. In recent years, basin wells have provided as much as 4,103 AF (in 2007) but City production is projected to range between 1,800 AFY and 2,600 AFY between 2025 and buildout (2050 or later) (**Table 13**).

Because groundwater can provide additional supplies, reductions in supplies due to climate change or other factors were not incorporated into the DRA for the next five years. While the NWP water is a reliable source of supply, there have been interruptions in its transmission from Lake Nacimiento. These pipeline problems are being resolved and it is anticipated that NWP water availability and use by the City will be more consistent and dependable moving forward.

The supplies between 2020 (known) and 2025 (projected) were estimated using a linear extrapolation.

WSCP Use Reductions. The supply projections were compared to the use projections to determine supply shortage conditions on a monthly basis during a five-year drought. A monthly shortfall due to drought was not noted since additional supplies could be used (such as groundwater) to make up the difference. In the event that a shortfall would occur, the City could activate a WSCP shortage level to reduce use to meet available supplies.

DRA Limitations. Several assumptions were made in this DRA. First, it is based on unique drought conditions (2012-2016) and future drought conditions may exhibit different monthly patterns of water supply and use. It assumes that groundwater production can be increased during droughts. In recent years, basin wells have provided as much as 4,103 AF (in 2007). The GSP (Montgomery, 2020) concluded that potential future changes in climate are not projected to have a substantial impact on the amount of groundwater that can be sustainably used compared to historical conditions. It is unlikely that 2021 to 2025 groundwater pumping would be restricted as part of a GSP action to attain groundwater sustainability by 2040. The City's groundwater production is lower than what it has been in

the past (**Table 8**) because of use of NWP water and maximizing use of its Salinas River water.

7.2.2. Water Source Reliability

As described, the City has a diverse water supply portfolio that increases the overall reliability of the City's water supply. While all but one of the Salinas River wells are clustered in two well fields, the remaining City wells are distributed widely throughout the City. Three water sources are included in the DRA: groundwater, Salinas River water, and NWP water. The City will have recycled water available in the future (projected to be 2025), but it was not incorporated into the DRA because the date that recycled water will be available for distribution is unknown. Detailed information on each of these supplies is in Section 6. As mentioned before, groundwater production and availability were assumed to not be impacted if a five-year drought occurred during the next five years.

Between 2012 and 2016, use of Salinas River supplies ranged from 2,448 AFY (2016) to 3,814 AFY (2012). In 2013, a very dry year, the City used 3,743 AF of Salinas River water. On an annual basis, the Salinas River supply available to the City does not appear to be greatly impacted by drought conditions. If monthly availability of Salinas River supply fluctuates, the City can make up shortages with groundwater use.

NWP water is a reliable and stable source of water as jurisdictions in San Luis Obispo County have a contractual first priority to 17,500 AFY of the reservoir yield which has averaged 191,000 AFY between 1959 and 2015. Modeling of the Nacimiento project indicates that even during historical drought periods, the total annual entitlement to San Luis Obispo County can be delivered (Boyle, 2002 and Paso Robles, 2014b). This drought resilience has been demonstrated during recent dry years as the project continues to satisfy all delivery requests from project participants. While the NWP water is a reliable source of supply, there have been interruptions in its transmission from Lake Nacimiento. These pipeline problems are being resolved and it is anticipated that NWP water use will be more consistent and dependable moving forward. If monthly availability of NWP water supply fluctuates, the City can make up shortages with groundwater use.

7.2.3. Total Water Supply and Use Comparison

The DRA total water supply and use comparison is summarized in DWR Table 7-5 (following text). It was developed using the information described in Sections 7.2.1 and 7.2.2. The table indicates that the City is capable of providing adequate supplies if a five-year drought occurred during the next five years. On an annual and monthly basis, the comparison of supply and use indicates no shortage condition. The City now has NWP water to satisfy summer peaks in demand during drought years and can also rely on groundwater.

City's WSCP provides guidelines for City procedures and actions to take during any type of water shortage (see Section 8 and **Appendix D**).

8. WATER SHORTAGE CONTINGENCY PLANNING

The City has updated its Water Shortage Contingency Plan (WSCP) in response to new legislation in 2018. The Water Shortage Contingency Plan provides a guide for actions the City can take during water shortages and improves the City's readiness to address supply shortages through various levels of water management requirements to conserve water. Included in the WSCP are measures to prevent waste and unreasonable use of water to ensure that water will be used in a reasonable and beneficial manner. The City's previous WSCP[2] was updated to include response actions that align with six standard water shortage levels based on water supply conditions, as well as shortages resulting from catastrophic supply interruptions. The WSCP also includes procedures for conducting an Annual Water Supply and Demand Assessment (Annual Assessment) that is to be submitted to DWR by July 1 of each year starting in 2022. The new WSCP is in **Appendix D**.

The WSCP is a separate document from the UWMP so that it can be amended, as needed, without amending the UWMP. The WSCP must be included as part of the 2020 UWMP and must be approved at a public hearing. However, the same public hearing can be used for approval of the UWMP and WSCP.

Information required for the WSCP includes:

- Water Supply Reliability Analysis
- Annual Water Supply and Demand Assessment Procedures
- Shortage Levels
- Shortage Response Actions
- Communication Protocols
- Compliance and Enforcement
- Legal Authorities
- Financial Consequences of WSCP Activation
- Monitoring and Reporting
- WSCP Refinement Procedures
- Special Water Feature Distinction
- Plan Adoption, Submittal and Availability.

This information is provided in detail in **Appendix D** and select information is summarized below.

8.1. WATER SUPPLY RELIABILITY ANALYSIS

Water supply reliability analyses conducted by the City (Section 7.1) identified constraints on water supply sources and evaluated each source's availability during a normal year, a single dry year, and a 5-year drought period. These analyses showed that supply resources are sufficient to meet demands on an annual basis during times of shortages, but short-term

[2] City municipal code Chapter 14.02 Water Conservation and Water Shortage Contingency Plan.

shortages could result from catastrophic occurrences such as the loss of power or the complete loss of one of its supply sources. The City has a portfolio of supplies that include Salinas River water, groundwater, and NWP water. Recycled water is expected to be available within approximately five years.

The Drought Risk Assessment (Section 7.2) showed that during multiple dry years the City has enough supply to meet demands. It may need to rely on increased groundwater use as a reserve, if necessary, or increased surface water use. This short-term use of groundwater is acceptable if the groundwater is managed to restore reserves in wet years. Causes of a water shortage include prolonged drought, the sudden presence of an unforeseen toxin, or infrastructure damage due to earthquakes or other natural disasters.

A Draft Regional Water Infrastructure Resiliency Plan (RWIRP) (WSC, 2021) was prepared for the San Luis Obispo County Flood Control & Water Conservation District. The Draft RWIRP includes an analysis of regional water supply vulnerabilities, identifies projects and/or transfer/exchange/water sales opportunities to improve water supply resiliency, and develops a framework to facilitate inter-agency collaboration among San Luis Obispo County water purveyors. The City of Paso Robles was identified in the RWIRP to have a limited vulnerability and one of the lowest risk ranks of the 41 San Luis Obispo County agencies analyzed in the RWIRP.

8.2. ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Beginning in 2022, the City must prepare an Annual Assessment and submit an Annual Water Shortage Assessment Report to DWR by July 1 of each year.

The Annual Assessment will include documentation of the projected supply and demand for the upcoming year and determination that supply will be sufficient, even during a dry year. The Annual Assessment is a near-term forecast of water supply conditions (next 12 months) to determine if shortage response actions should be declared allowing time for water use and supplies to be adjusted to lessen the shortage impact. The DRA (Section 7.2) has a multiyear longer-term focus.

DWR is developing a guidance document with recommended procedures and methods that could be used to conduct the Annual Assessment and comply with the requirements for reporting. However, the WSCP included in this 2020 UWMP is to contain specific procedures the City plans to use to complete the Annual Assessments. These procedures are outlined in the WSCP in **Appendix D**.

8.2.1. Shortage Levels

Declaration of a water shortage is dependent on many factors because the City has a suite of available water supplies. The first step is to determine if one or more of the City's supplies has the potential to be available in limited quantities in the near future. Six water shortage levels have been established corresponding to shortages of up to 10, 20, 30, 40, 50, and greater than 50 percent. The four levels identified in the City's previous WSCP were subdivided into the six levels as shown in DWR Table 8-1 (following text).

Beyond permanent water use restrictions and prohibitions on water waste, six increasing levels of actions are defined to be implemented in times of possible shortage, including a shortage of over 50 percent of water supply. Level 1 is voluntary while Levels 2 through 6 are mandatory and violators are subject to civil and administrative penalties. The City Council is authorized to declare the appropriate water shortage condition. DWR Table 8-1 (following text) shows the designated shortage levels and corresponding requirements for conservation or mandatory use reductions.

Level 1 water use reduction measures are voluntary and request water users to reduce use by 10 percent in response to a reasonable probability that there will be a supply shortage (either peak or longer-term) when a savings of 10 percent of supply is needed to meet demands. Public education and awareness measures will increase to notify water users. Water conservation measures include restrictions on irrigation, repair and prevention of leaks, and use of recycled, non-potable, or non-City water for construction.

A Level 2 Condition may be declared when there is a reasonable probability of a supply shortage requiring consumers to reduce use by 20 percent to ensure sufficient supplies. All Level 1 measures are implemented as well as additional irrigation restrictions. The City may also restrict additional water connections and/or implement a water allocation per customer account with per unit penalty for use exceeding the water allocation.

During a Level 3 Condition, there is a reasonable probability of a supply shortage requiring consumers to reduce use by 30 percent. All Level 1 and Level 2 measures are implemented as well as further irrigation restrictions. Filling of ornamental lakes and ponds is prohibited. All leaks, breaks, and other plumbing malfunctions must be repaired upon discovery or within 48 hours of notification by the City. Washing down of vehicles and paved areas is prohibited. New water services will only be allowed under certain circumstances and all annexations will be suspended.

A Level 4 Condition may be declared upon a reasonable probability of a supply shortage requiring consumers to reduce use by 40 percent. All Level 1, 2 and 3 measures are mandatory. Leaks, breaks, and other plumbing malfunctions must be repaired upon discovery or within 24 hours of City notification. Filling or refilling of residential pools and spas is prohibited.

A Level 5 Condition may be declared when there is a reasonable probability of a supply shortage requiring consumers to reduce use by 50 percent to ensure sufficient supplies. All Level 1, 2, 3 and 4 measures are mandatory measures. Landscape irrigation is prohibited. Only net zero demand connections may be approved.

The highest level, Level 6, may be declared upon a reasonable probability of a supply shortage requiring consumers to reduce over 50 percent. All Level 1, 2, 3, 4 and 5 measures are mandatory. The City may also restrict additional water connections and/or implement a water allocation per customer account with per unit penalty for use exceeding the water allocation. This measure is introduced in Level 3 but repeated in Level 6 for the purpose of gaining additional reductions under these emergency water shortage conditions. The City will not enter into any new agreements to provide water to new customers.

8.3. SHORTAGE RESPONSE ACTIONS

The WSCP (**Appendix D**) contains mechanisms to ensure the City can provide adequate water supplies during times of shortages, and to ensure the City is able to maintain and provide a minimum supply of water for public health, safety, and welfare.

The City's responses to a water shortage require specific action by the City Council. Stages of action for many water agencies are defined by available storage in a surface water reservoir or by the annual allotment provided by a water wholesaler. In contrast, the City overlies vast groundwater storage that can be utilized by the City for its drought or emergency supply. The City's response to shortage will depend on the magnitude of the projected shortfall in supply and/or other needs for conservation. Once a water shortage level has been declared, measures will need to be implemented to meet water conservation goals.

DWR Table 8-2 (following text) lists demand reduction actions to take during various shortage levels. The table includes estimates of how much the action is anticipated to reduce the shortage gap and if there would be any penalty or enforcement associated with each action. At this point in time, the City has no supply augmentation or other actions planned to secure additional supplies in emergencies or droughts.

8.4. OTHER WSCP REQUIREMENTS

The WSCP (**Appendix D**) also includes information on communication protocols, compliance and enforcement, legal authorities and financial consequences of WSCP activation or the discouragement of excessive water use. Procedures for monitoring and reporting and WSCP refinement are also included in the WSCP. Once a WSCP shortage level has been activated, water use and supply will be monitored to see if actual responses match anticipated responses. This information can be used to reevaluate and improve the WSCP.

The WSCP has been made available and adopted in conjunction with the 2020 UWMP (see Section 10). In the future, the WSCP can be amended independently from the UWMP, as needed.

9. DEMAND MANAGEMENT MEASURES

This section provides a description of the water conservation programs that the City has implemented, is currently implementing, and anticipates implementing.

9.1. DESCRIPTION OF DEMAND MANAGEMENT MEASURES

The UWMP Act was significantly modified in 2014 to streamline the required demand management measures (DMMs) to six general requirements and an 'other' category. These are described below.

9.1.1. Water Waste Prevention Ordinances

In 2009, the City enacted Ordinance No. 09-957 N.S., the Water Conservation and Water Shortage Contingency Plan. The City subsequently updated the plan with several ordinances which clarify the original ordinance and include additional mandatory water conservation measures in response to the State's 2014 drought emergency water conservation requirements. Water waste prevention requirements from these ordinances are incorporated into the revised Water Shortage Contingency Plan (**Appendix D**) which outlines permanent water waste prohibitions that are in effect at all times and additional water use restrictions that are implemented in six levels according to increasing levels of water supply shortfalls.

As part of the City's comprehensive water conservation program and water waste prevention activities during times of water shortage and mandatory water use restrictions, the City has implemented a water conservation enforcement program consisting of regular neighborhood patrols, outreach and/or issuance of notices of violation (NOVs), and responses to reports of violations received by members of the public and City departments. Water customers found to be in repeat violation of the City's water conservation requirements within the same year are issued two formal written warning notices (first and second NOVs serve as warnings) before NOVs with administrative penalties are imposed. The City's formal enforcement activities are summarized below.

Summary of Waste Prevention Enforcement Activities

Enforcement Action	2015	2016	2017	2018	2019	2020
Total NOVs	470	253	10	0	2	0
First Warning	442	229	6	0	2	0
Second Warning	26	10	4	0	0	0
$100 First Violation	2	14	0	0	0	0

Amounts do not include direct outreach where observed or reported non-compliance did not result in formal enforcement.

Changes to the City's water conservation requirements (e.g., changes to water day schedule) are publicized through the City's website, newspapers, direct mailings to

customers and bill announcements. Notifications have also included radio spot announcements and other media, and message-specific signage placed at highly visible locations in the City.

The City plans to continue regular outreach and enforcement activities to support waste prevention while water use restrictions are in place.

9.1.2. Metering

All of the City's water services are metered and billed by volume used and the City installs new meters on all new services within its service area. The City has procedures in place for testing, repairing and replacing meters and proactively replaces specific meters, once individual meters reach a certain cumulative amount metered.

The City has billed all new connections volumetrically since 2011 and has supported submetering of non-residential accounts to allow domestic and outdoor use to be separately accounted. Landscape meters are typically required for new non-residential projects. Limited submetering has been implemented and submeters are tracked in the City's billing system. The potential benefits of Advanced Metering Infrastructure/ Reading (AMI/R) were evaluated by the City; however, these systems have not been employed due primarily to high costs relative to potential benefits.

The City plans to provide customer access to available monthly consumption data electronically to allow each customer to review recent water use data relative to historical usage and compare recent usage to conservation targets and other metrics.

9.1.3. Conservation Pricing

Conservation pricing provides a price signal to customers to use water efficiently. Since 2011, the City has had in place a uniform volumetric water rate structure, which promotes water conservation.

All of the City's water sales revenue is currently derived from volumetric chargers and flat fee charges. The adopted water rates for the 2016-2021 period introduced a fixed charge; however, more than 70 percent of revenue is derived from volumetric charges.

The City has also evaluated establishing water use allocations for water customers in response to emergency drought conditions and State-mandated conservation requirements. The City's Water Shortage Contingency Plan was updated in conjunction with this 2020 UWMP and allows the City to establish a penalty pricing structure, if determined necessary.

9.1.4. Public Education and Outreach

PUBLIC INFORMATION PROGRAMS

One of the cornerstones of an effective water conservation program is effective public outreach and education. Public information and outreach—which convey the need for efficient water use and show how customers can reduce water use—support all other elements of the program.

Paso Robles is currently engaged in all these activities:

- Ongoing public outreach and direct assistance programs
- Contacts with the media at least four times per year
- Actively maintained website
- Recurring annual budget for the public outreach program and assistance programs.

Since the City began its comprehensive water conservation program in 2009, the City has had an active public information program and has increased outreach activities in response to increasing drought severity. The following activities are used to convey water conservation messages and to advertise other program elements to customers. Some activities listed are employed only when increased levels of water conservation are required.

- Radio advertising
- Bill inserts
- Water use and conservation bill messaging
- Landscape water conservation media messaging
- Newspaper editorials
- Water conservation brochures made available at the City library and at some functions
- Participation in workshops on water-wise landscaping and conversion of lawns to water-wise landscapes
- Landscape watering schedule made available on the City's website, through direct customer contact for the landscape rebate program and home water surveys, and upon request
- Customer notification when runoff or water waste is reported
- Leak abatement assistance when a leak is suspected by City or customer
- Irrigation timer assistance upon request by residential customers
- Water bill information showing monthly use compared to historical use
- Consistent conservation program "branding" with slogans, graphics, etc.
- Customer in-home water surveys which include review of historical water use data, inspections of indoor and outdoor water systems, providing replacement shower heads, aerators, and toilet flap valves, and recommendations for correcting issues with fixtures or irrigation systems including a summary of findings and customer checklist.

The City's outreach and education activities support other program activities by communicating the need for water conservation and educating customers on how to conserve water.

SCHOOL EDUCATION PROGRAMS

This DMM covers classroom presentations promoting efficient water use and supplementation of presentations with grade level-appropriate education materials. The City has an ongoing program, working through a local consultant specializing in presentations to grades K through 6. The consultant coordinates with the Paso Robles school district and markets the program directly to teachers throughout the school district.

A 45-minute interactive presentation titled "The Story of Your Water," teaches students about the water cycle, water treatment, water conservation in the home and yard, and water reclamation. These presentations meet state education framework standards and are age appropriate.

The City also provides age-appropriate water education material to children at approximately 2 to 3 community fairs each year (conservation coloring books, workbooks, and other promotional items).

9.1.5. Programs to Assess and Manage Distribution System Real Loss

This DMM focuses on minimizing lost and unaccounted-for water (non-revenue water) through system leak detection and repair, and through comprehensive audits of the water production and water distribution system. Procedures for conducting a system water audit have been developed by the American Water Works Association (AWWA). To comply with this DMM, utilities are expected to use this methodology.

The City has prepared distribution system water loss audits in accordance with AWWA water audit method since 2015. The City tracks water system leaks, repairs, and overall water losses on an annual basis.

Water loss in the AWWA audit is the difference between water supplied and authorized consumption. It is apparent losses (e.g., meter error) plus real losses (e.g., leaks and theft) from the AWWA Annual Water Audits (**Appendix B**). Apparent losses are nonphysical losses that occur when water is successfully delivered to the customer but is not measured or recorded accurately. It can include unauthorized use, meter inaccuracies, and data handling errors. Real losses are the physical water losses from the water distribution system and storage facilities (i.e., leaking pipes and service connections, and leakage and overflows at facilities).

The City's water losses from its AWWA Water Audits are listed in **Table 6** for 2015 through 2019 and range from 157 AF (2018) to 366 AF (2015). **Table 6** also includes the percentage of water lost compared to the supply for each year. The loss percentages have been below 6 percent since 2016, indicating that the City's water losses are minimal. Unaccounted for urban water use in California generally ranges from 6 to 15 percent (DWR, 1994).

A small portion of water produced in any water system is called non-revenue water. It is the difference between total water supplied and billed consumption and includes water losses plus unbilled metered and unmetered water uses such as water used for system maintenance. Unbilled metered and unmetered water usage would include main flushing, firefighting, water quality testing, water treatment plant losses, and fire flow tests. The City's 2015 through 2019 non-revenue water is also listed in **Table 6** and ranged from 187 AF (2018) to 431 AF (2015).

The City's water losses and non-revenue water percentages are relatively low by California water utility and industry standards (DWR, 1994). The City will continue to monitor the unaccounted-fo percentage and begin to develop the data required to complete this audit. The City regularly checks the accuracy of the City's well production meters, performs calibrations, and/or replacements. On-going programs to reduce unaccounted-for water

include a replacement program for customer meters based on billing record analysis. Currently, customer meters are replaced when billing data discrepancies indicate a zero read, an extremely slow meter, or a certain amount of flow has been metered through an individual meter. The City has also implemented a testing, repair, and replacement program for customer meters.

The City assesses non-revenue water annually using the AWWA methodology and will evaluate water system programs and modifications to supplement the City's management of distribution system losses.

9.1.6. Water Conservation Program Coordination and Staffing Support

This requirement has been met through the staffing since 2009 of a full-time Conservation Manager position in charge of planning and implementation of the City's conservation programs. The City's water conservation program also periodically utilizes part-time assistance with water conservation activities including customer assistance, enforcement of mandatory conservation requirements, and inspections for rebate programs. The City also partners with other local agencies and organizations to deliver water conservation education and outreach.

The City will maintain a full-time Conservation Manager or similar staff position for planning and implementing the City's conservation program and will supplement staffing, as required to provide further assistance with conservation programs, depending on need.

9.1.7. Other Demand Management Measures

Other water conservation program elements have been implemented by the City to assist customers in detecting and addressing water waste and incentivize water efficiency improvements in the City's service area. Although it is difficult to quantify water savings from these activities, the following conservation program elements have a significant effect on water conservation. Information and updates on these programs are communicated to the public through a variety of methods which often include newspaper announcements, print advertising, notifications on the City's website, direct mailings to customers and bill announcements, radio advertising, and brochures and signage at the City utilities billing office and City Hall. Implementation of these additional conservation program elements is described below.

<u>LANDSCAPE AND IRRIGATION SYSTEM ORDINANCE</u>

In 2009 the City adopted a water efficient landscape ordinance in response to the requirements of AB 1881 and in 2015 updated the ordinance in response to the State's 2015 Model Water Efficient Landscape Ordinance. The ordinance applies to all new and retrofitted landscapes that are subject to the development review process and/or building permitting. The City's 2015 Ordinance, No. 15-1020 N.S., applies primarily to landscape water use efficiency in new development and rehabilitated landscape projects. In addition to including many of the State's model water efficient landscape ordinance requirements for efficient landscape and irrigation system design, the City limits turf landscaping in new developments as follows:

- Single Family residential - development limited to 25 percent of the landscaped area and if turf is used in front or front-side yards, more detailed documentation is required.
- Multi-family residential - development limited to 20 percent of the landscaped area.
- Commercial development limited to using 100 percent water-conserving plant species in landscape areas (turf prohibited).

The City plans to continue to monitor the effectiveness of the landscaping ordinances and will adapt city policies or ordinances to improve effectiveness of this demand management measure.

HOME WATER SURVEYS AND LEAK CHECKS

The City has offered in-home water surveys to water customers since 2010. During customer water surveys, City water conservation staff meets with residents; reviews historical water use and customer observations; and assesses home plumbing fixtures, appliances, and landscape irrigation systems for opportunities to improve water use efficiency. The City provides replacement shower heads, aerators, and toilet flap valves, if needed. Following the survey, the City provides a summary of findings and makes recommendations for correcting issues observed with fixtures and irrigation systems including a correction checklist for customers. Customers are also alerted to other City programs that are available to assist with recommended water efficiency improvements. The City also provides leak check assistance to customers who suspect they may have a water leak or are suspected by the City to have a water leak or abnormally high water use. Water conservation staff meets with customers to discuss their observations, review recent historical usage, and check for leaks at the property using a meter check.

Participation in in-home water surveys and leak checks varies annually and is affected by customer interest, climate conditions, conservation requirements in place, and other factors.

LANDSCAPE AND HIGH EFFICIENCY TOILET REBATES

The City's landscape rebate program, initiated in 2010, incentivizes customer replacement of grass lawns with drought-tolerant landscapes using drip irrigation. The landscape rebate program reduces water demand year-round, especially during the peak demand season when irrigation demands are highest. The City offers $0.50 per square-foot of existing lawn that is converted to a drought-tolerant landscape and limits landscapes rebates to a maximum of $500 per property. To date, the City has incentivized conversion of approximately 27.6 acres of lawn to drought-tolerant landscaping (approximately 1,153 landscape rebates). This program has been temporarily on hold for about a year due to Covid-19 restrictions but is expected to be active again in Fall of 2021, subject to staffing availability.

The City's high efficiency toilet (HET) rebate program also began in 2010 and is on a temporarily on hold due to Covid-19 restrictions. The HET rebate program offers a rebate of up to $125 per HET installed (1.28 gallons per flush (gpf) or less, or dual flush toilet) which replaces an existing 3.5 gpf (or higher) model. To date approximately 685 toilets have been rebated.

The recurring annual budget for the rebate programs has ranged from $50,000 to $74,000 for the City's two rebate programs. During years when participation has or is expected to exceed available budget, the City has allocated additional annual funding to allow increased participation. For example, in 2015, the City allocated a total of $105,000 to the rebate programs.

The City plans to continue offering water conservation rebates and incentives to water customers through 2021.

9.2. REPORTING IMPLEMENTATION

9.2.1. Implementation Over the Past Five Years

Implementation of current demand management measures is described above with descriptions of each measure.

Below is a brief summary of activity on each DMM during the 2016 through 2020 time period.

Water Waste Prevention Ordinances. The City has water waste prevention ordinances and as part of the City's water waste prevention activities, has implemented a water conservation enforcement program consisting of regular neighborhood patrols, outreach and/or issuance of notices of violation, and responses to reports of violations received by members of the public and City departments. Section 9.1.1 contains a summary of waste prevention enforcement activities for the 2016 to 2020 time period.

Metering. All of the City's water services are metered and billed by volume used and the City installs new meters on all new services within its service area. The City has procedures in place for testing, repairing and replacing meters and proactively replaces specific meters, once individual meters reach a certain cumulative amount metered. This is discussed in Section 9.1.2.

Conservation Pricing. Since 2011, the City has had in place a uniform volumetric water rate structure, which promotes water conservation. In 2016 a flat fee component was introduced but the large majority of revenue continues to come from volumetric charges. Section 9.1.3 provides further details on conservation pricing.

Public Education and Outreach. The City has a comprehensive public education and outreach program that includes media contacts (such as radio and newspaper), update information on the City's website, bill inserts, signage, workshops, and school education. Activities that occurred during the 2016 through 2020 time period are discussed in Section 9.1.4.

Programs to Assess and Manage Distribution System Real Loss. Sections 4.2 and 9.1.5 provide details in the City's distribution system losses and programs to address those losses. The City regularly checks the accuracy of the City's well production meters, performs calibrations, and/or replacements. On-going programs to reduce unaccounted-for water include a replacement program for customer meters based on billing record analysis. Currently, customer meters are replaced when billing data discrepancies indicate a zero

read, an extremely slow meter, or a certain amount of flow has been metered through an individual meter. The City continues to implement a formalized replacement program for customer meters and is evaluating routine testing and repair for large meters rather than replacement based on volume read. The City has also considered undertaking a comprehensive leak detection programs, however results from the City's loss audits do not indicate sufficient need.

Water Conservation Program Coordinator. The City has a Conservation Manager position for planning and implementing the City's conservation program and will supplement staffing, as required to provide further assistance with conservation programs, depending on need. This is discussed in more detail in Section 9.1.6.

Other Demand Management Measures. Other implemented demand management measures include a Water Efficient Landscape Ordinance, home water surveys and leak checks, and landscape and high efficiency toilet rebates. Section 9.1.7 includes a summary of activity on these during the 2016 to 2020 time period.

9.2.2. Implementation to Achieve Water Use Targets

The DMMs that were the main drivers of the reduction in water use include the water waste prevention ordinance and the City's public outreach and education efforts. Reductions in water use resulting from conservation rebates and increases in water rates have also contributed to long-term conservation and achieving water use targets.

In response to the State Board's statewide emergency conservation regulations in 2015, the City increased its public education and outreach. The increased public outreach, especially focusing on reducing water waste outdoors, and the permanent prohibitions on water waste has had noticeable impacts on water use. Water use in 2015 (5,153 AF) was almost 18 percent less than water use in 2014 (6,269 AF) and 26 percent less than water use in 2013 (7,000 AF). Water use in 2020 (5,745 AF) indicates that water demands have not rebounded to pre-drought levels. The City's 2020 water use was 164 gpcd, well below the City's 2020 water use target of 193 gpcd.

Although gross per capita water use is expected to increase relative to actual 2020 use due to increased non-residential development, it is anticipated that continued implementation of the DMMs will ensure that water use per capita will remain below the target established for 2020.

9.3. WATER USE OBJECTIVES

The City has developed water management objectives (WMOs) to improve long-term planning and resiliency, adapt to climate change, and improve regional self-reliance. These are listed below.

- Encourage more efficient water use at the customer level
- Optimize conjunctive management of Salinas River water, NWP water, groundwater, and future recycled water

- Assist with implementing Paso Robles Area Subbasin projects and management actions applicable to the City and operate within the established Paso Robles Area Subbasin GSP sustainable management criteria
- Assist with implementing Atascadero Area Subbasin projects and management actions, when identified[3], applicable to the City and operate within the established Atascadero Area Subbasin GSP sustainable management criteria.

More efficient water use is being encouraged through implementation of the DMMs, especially though Public Education and Outreach DMM.

Conjunctive use of available water is a key component of sustainable water supplies. The City is optimizing conjunctive management of its water supply portfolio and augmenting that with recycled water. Through the Annual Assessments, the City will monitor supply and demand conditions and adjust supply management as needed. In addition, the City participates actively in regional water management, monitoring, and planning in cooperation with San Luis Obispo County, groundwater sustainability agencies, and other regional stakeholders.

The Paso Robles Area Subbasin GSP (Montgomery, 2020) identified sustainable management criteria for applicable sustainability indicators under SGMA (chronic lowering of water levels, reduction of groundwater in storage, degraded water quality, inelastic land subsidence, and depletion of interconnected surface water[4]). It characterized undesirable results and established minimum thresholds and measurable objectives for each sustainability indicator. A monitoring network is in the process of being refined to support the Paso Robles Area Subbasin GSP Sustainability Goal by providing the ability to detect undesirable results. The GSP Sustainability Goal is to sustainably manage the groundwater resources of the Paso Robles Subbasin for long-term community, financial, and environmental benefit of Subbasin users.

The Paso Robles Area Subbasin GSP and Annual Report (GSI, 2021) identified several projects and management actions that are in process or have been recently implemented in the Subbasin to attain sustainability. The City is an ongoing participant in this process and is leading the effort of one project: City of Paso Robles Recycled Water Program.

The GSP for the Atascadero Area Subbasin is currently being developed. The City is also an active participant of this GSP and will support the projects and management actions, when identified, that are applicable to the City.

[3] The Atascadero Area Subbasin GSP is still being developed and projects and management actions have not finalized at the time of this UWMP.

[4] A sixth sustainability indicator for seawater intrusion is not applicable to conditions in the inland Paso Robles Area Subbasin.

10. PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

10.1. PUBLIC HEARING AND ADOPTION

In accordance with the UWMP Act, San Luis Obispo County was given proper notification that the UWMP would be revised (DWR Table 10-1 following text). Other entities outside of the City's water service area were also notified that the UWMP would be revised. These are listed in Section 2.2. The notification included location where the UWMP and WSCP can be viewed, time and place of the public hearing, and contact information. Copies of the notification emails sent to the County and other entities are in **Appendix A**.

Public notices were published before the public hearing in accordance with Government Code 6066. The City held a public hearing on July 8, 2021 to consider and adopt the UWMP and WSCP. Documentation of the public notices and public hearing are also included in **Appendix A**.

The Draft Plan was available to the public on May 17, 2021 for comment with a public presentation on July 8, 2021 at a regular City Council meeting. The UWMP and WSCP were adopted on July 8, 2021 at the public hearing and copies of the adoption resolutions are included in **Appendix A**.

10.2. PLAN SUBMITTAL AND AVAILABILITY

The adopted 2020 UWMP and WSCP will be submitted to the California Department of Water Resources within 30 days of adoption. The submittal will occur electronically through WUE Data Portal, an online submittal tool. A CD of the UWMP and WSCP will be sent to the California State Library within 30 days of adoption.

San Luis Obispo County will be sent an electronic copy of the adopted UWMP and WSCP. Plan copies will be available at City Hall and the City Library. An electronic version will be available on the City's website (http://www.prcity.com).

10.3. UWMP CHECKLIST

The following table is a multi-page checklist developed from the Urban Water Management Planning Act and SB X7-7 to support preparation of the UWMP and provide DWR with the UWMP location where required elements can be found.

2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location
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	Sections 4, 6, 9
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	Sections 1, 6, 8, 9
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	Section 2.1
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	Sections 2.2, 10.1
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	Section 2.2
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	Section 2.2
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	Not Applicable
Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 3.2
Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3, Table 2
Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 3.4, Table 3, Table 3-1

Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 3.5
Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4, 5.1.3
Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 3.2
Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.1, Tables 4, 5, Tables 4-1, 4-2, 4-3
Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4.2, Table 7, Table 4-4
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	Sections 4.1.2, 4.3
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	Section 4.3
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	Section 4.2, Table 7, Table 4-4
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	Section 4.4
Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Sections 4.5, 7.2
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	Section 5
Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 5.4
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	Not Applicable

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	Not Applicable
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	Sections 5.1, 5.2, Table 8, Table 5-1
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	Sections 5.3, 5.4, Appendix C. Senate Bill X7-7 2020 Compliance Tables
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	Sections 6, 7
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	Sections 6, 7
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	Sections 6, 7
Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 6.6
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	Section 6,Tables 9, 13, 14, Tables 6-8, 6-9
Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.3
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	Sections 1.3, 6.3.3
Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6.3

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	Section 6.3
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	Section 6.3
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	Section 6.3, Table 9, Table 6-1
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	Section 6.7, Table 14, Table 6-9
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	Section 6.4
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)	Section 6.5, Table 12, Tables 6-2, 6-3, 6-4
Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5, Table 12, Table 6-4
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)	Section 6.5.2
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)	Section 6.5.2, Table 12, Table 6-9
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)	Section 6.5.2, Table 6-6
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)	Section 6.5.2, Table 6-6
Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.5.3

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)	Section 6.5.1
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	Sections 6.6, 7.1.4
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	Section 6.9
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	Sections 6.1, 6.3.1, 7.1.1
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	Section 7.1.4
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	Section 7.1.3
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	Section 7.2
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	Section 7.2.1
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	Section 7.2.2
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	Section 7.2.3
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	Section 7.2

Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Section 8, Appendix D
Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	Sections 7, 8.1 and Appendix D (Section 1.2)
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	Appendix D (Sections 1.10, 1.11)
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	Appendix D (Section 1.3)
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	Appendix D (Section 1.3)
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	Section 8.2.1, Appendix D (Section 1.4)
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	Not Applicable since WSCP was updated to 6 categories
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	Appendix D (Section 1.5.2)
Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Appendix D (Section 1.5.1)
Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Appendix D (Section 1.5)
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	Appendix D (Section 1.5.1)
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	Appendix D (Section 1.5.5)

Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	Appendix D (Section 1.5.4)
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	Appendix D (Sections 1.5.1, 1.6)
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	Appendix D (Sections 1.5.1, 1.6)
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	Appendix D (Section 1.7)
Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	Appendix D (Section 1.8)
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	Appendix D (Section 1.5)
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	Appendix D (Section 1.5)
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	Appendix D (Section 1.9)
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	Appendix D (Section 1.9)
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	Appendix D (Section 1.9)
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	Appendix D (Section 1.10)
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	Appendix D (Sections 1.5 and 1.12)
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	Section 10.2

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	Section 10.2
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	Not Applicable
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	Section 9
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	Section 10.1
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	Section 2.2
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	Section 10.2
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	Sections 2.2, 10.1, Appendix A
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	Section 10.1, Appendix A
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	Section 10.1, Appendix A
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	Section 10.2
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	Section 10.2
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	Section 10.2

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	Section 10.2
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	Section 10.2
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	Not Applicable
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	Section 10.2, Revised WSCP is Appendix D to the UWMP

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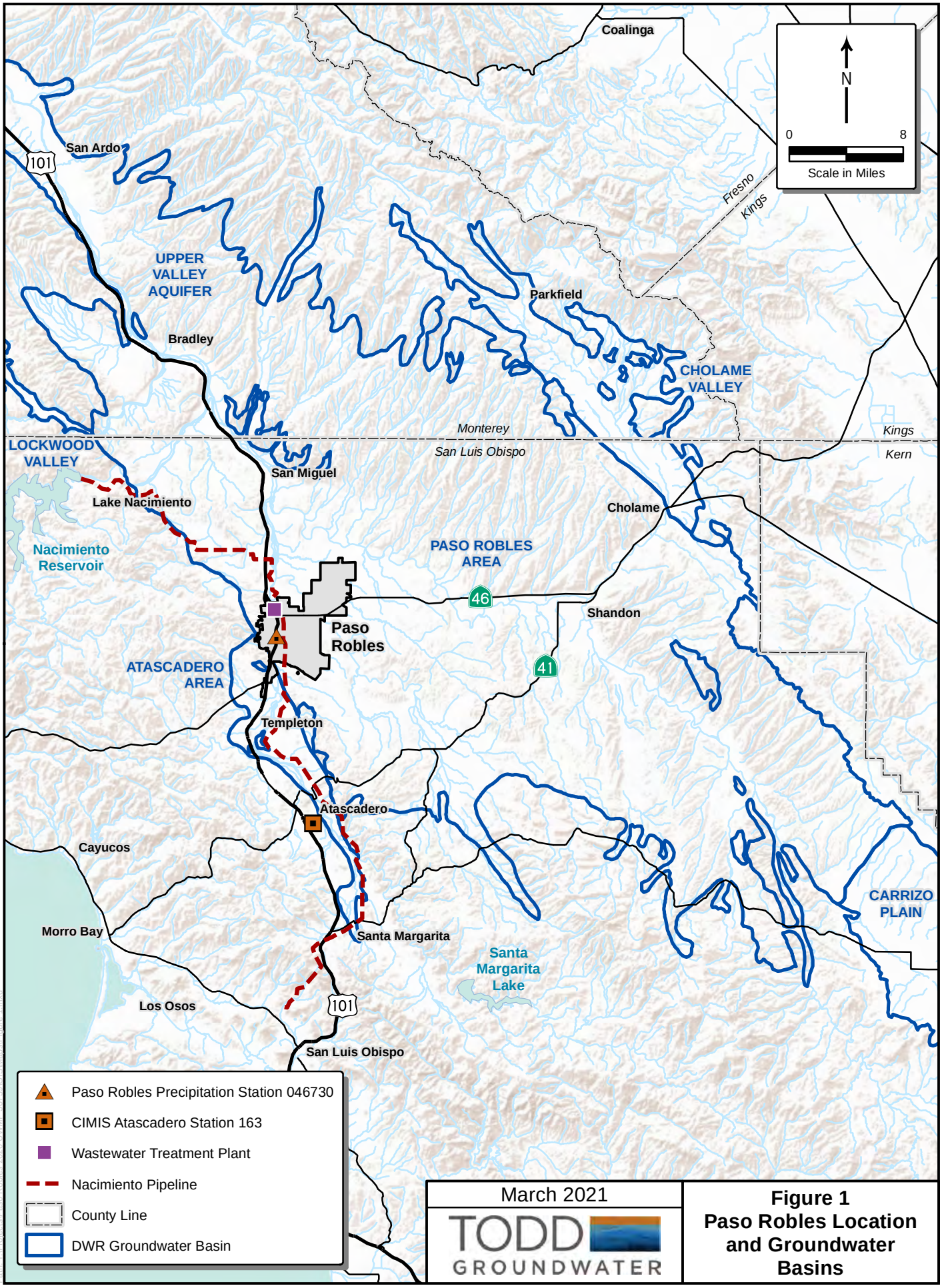
Figures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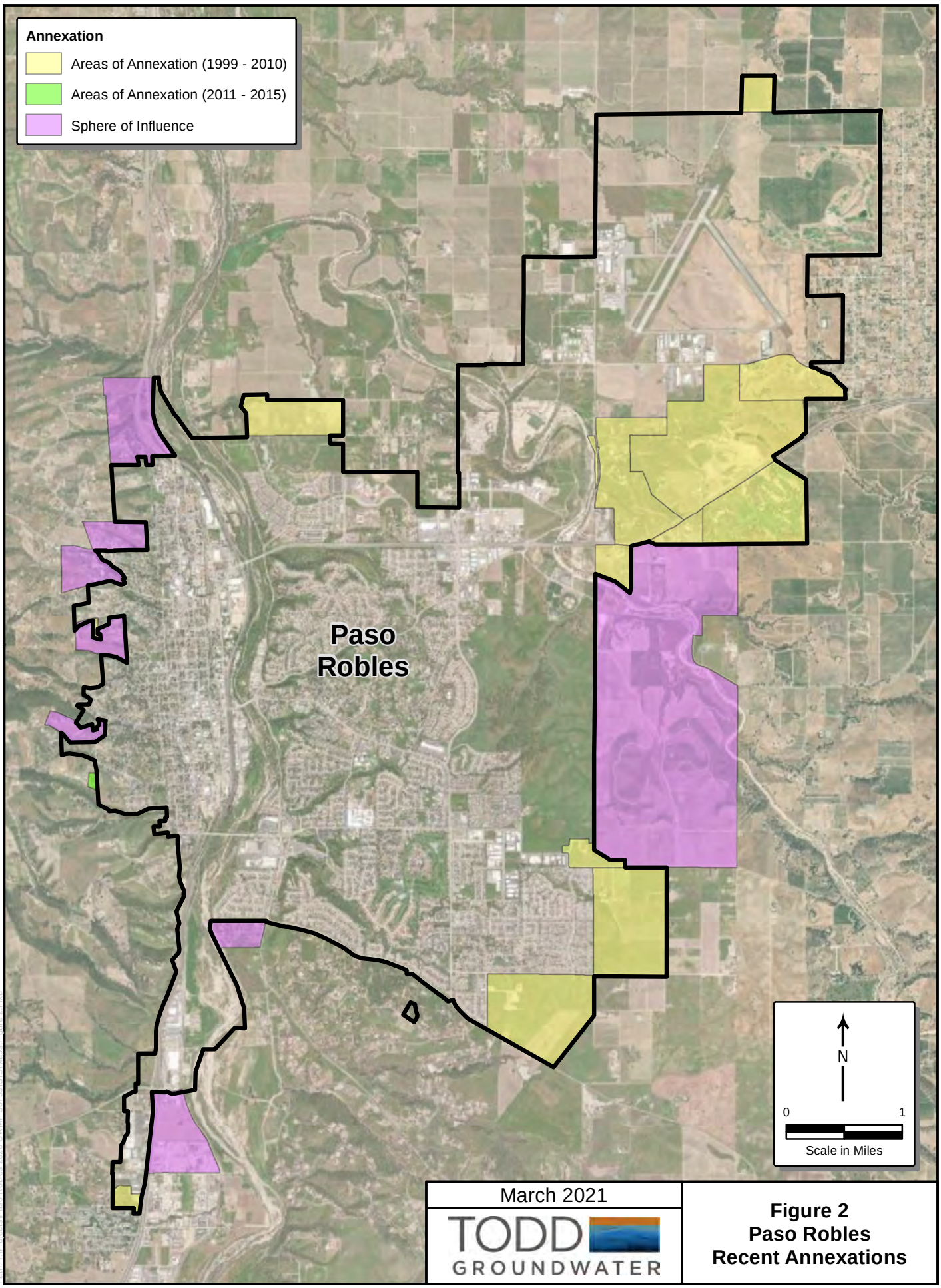
Monterey
San Luis Obispo
Kings
Kern
LOCKWOOD VALLEY
San Miguel
Lake Nacimiento
Cholame
Nacimiento Reservoir
PASO ROBLES AREA
46
Shandon
Paso Robles
41
ATASCADERO AREA
Templeton
Atascadero
Cayucos
CARRIZO PLAIN
Morro Bay
Santa Margarita
Santa Margarita Lake
Los Osos
101
San Luis Obispo
Paso Robles Precipitation Station 046730
CIMIS Atascadero Station 163
Wastewater Treatment Plant
Nacimiento Pipeline
County Line
DWR Groundwater Basin
March 2021
TODD GROUNDWATER
Figure 1
Paso Robles Location and Groundwater Basins



March 2021

TODD GROUNDWATER

Figure 2
Paso Robles
Recent Annexations

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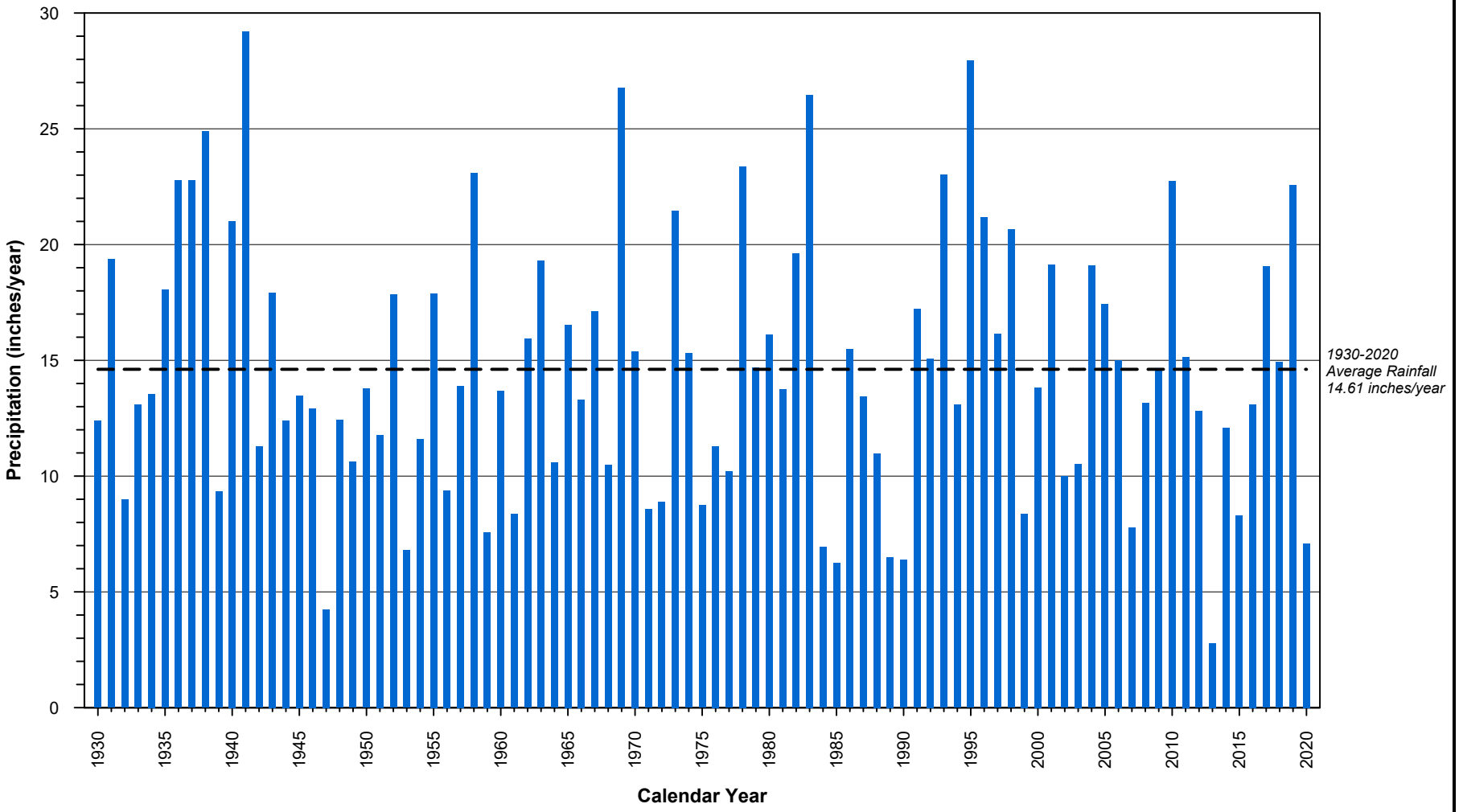

Note: Precipitation data from Paso Robles Station 046730 (WRCC, 2021)

March 2021

TODD GROUNDWATER

Figure 3
Paso Robles
Annual Rainfall

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Tables

Submittal 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 *
Add additional rows as needed			
4010007	Paso Robles Water Department	10,766	5,745
	TOTAL	10,766	5,745
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

Submittal Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* (select from drop down list)
☑	**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)**		
NOTES:			

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year (select one)	
☑	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)	
Units of measure used in UWMP * (select from drop down)	
Unit	AF
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

Submittal 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 Water Code Section 10631.
Wholesale Water Supplier Name
Add additional rows as needed
None-not applicable
NOTES:

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045*(opt)*
	31,221	34,400	37,700	39,900	41,900	42,800
NOTES:						

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual			
Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[2]
Add additional rows as needed			
Single Family		Drinking Water	2,727
Multi-Family		Drinking Water	638
Commercial		Drinking Water	580
Industrial		Drinking Water	508
Institutional/Governmental		Drinking Water	288
Landscape		Drinking Water	690
Losses		Drinking Water	275
Other		Drinking Water	39
		TOTAL	5,745

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*

[2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected						
Use Type	Additional Description (as needed)	Projected Water Use[2] *Report To the Extent that Records are Available*				
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
Single Family		2,820	2,914	3,007	3,100	3,194
Multi-Family		807	932	1,056	1,181	1,305
Commercial		673	766	859	952	1,044
Industrial		646	784	923	1,061	1,199
Institutional/Governmental		324	359	395	431	467
Landscape	Does not include use of recycled water	737	604	581	568	545
Losses		455	495	536	577	618
Other		53	68	82	97	111
	TOTAL	6,515	6,922	7,439	7,967	8,483

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.* [2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Landscape use type does not include use of recycled water. See Table 4-3 for total water use.

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable *From Tables 4-1R and 4-2 R*	5,745	6,515	6,922	7,439	7,967	8,483
Recycled Water Demand[1] *From Table 6-4*	0	0	180	250	310	380
Optional Deduction of Recycled Water Put Into Long-Term Storage[2]						
TOTAL WATER USE	5,745	6,515	7,102	7,689	8,277	8,863

[1] Recycled water demand fields will be blank until Table 6-4 is complete

*[2] Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.*

NOTES:

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss [1,2]
01/2015	366
01/2016	216
01/2017	334
01/2018	157
01/2019	228
[1] *Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.* [2] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES: Water loss is the difference between water supplied and authorized consumption. It is apparent losses plus real losses from the AWWA Annual Water Audit.	

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	Yes
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	Sections 4.1.2, 4.3, and 9.1
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes
NOTES:	

Submittal Table 5-1 Baselines and Targets Summary
From SB X7-7 Verification Form
Retail Supplier or Regional Alliance Only

Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	*1999*	*2008*	*241*	*193*
5 Year	*2003*	*2007*	*242*	

**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:

Submittal Table 5-2: 2020 Compliance **From** **SB X7-7 2020 Compliance Form** *Retail Supplier or Regional Alliance Only*				
2020 GPCD				
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* *(Adjusted if applicable)*	2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
164	*0*	*164*	*193*	*Yes*
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

Submittal 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 ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
Alluvial Basin	Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin (3-004.06)	951	842	656	1359	954
	TOTAL	951	842	656	1,359	954
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Submittal 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.					
100	Percentage of 2020 service area covered by wastewater collection system *(optional)*					
100	Percentage of 2020 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
City of Paso Robles	Metered	2,464	City of Paso Robles	City of Paso Robles Wastewater Treatment Plant	Yes	No
Total Wastewater Collected from Service Area in 2020:		2,464				
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3* **.**						
NOTES:						

Submittal 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)* [2]	Method of Disposal ***Drop down list***	Does This Plant Treat Wastewater Generated Outside the Service Area? ***Drop down list***	Treatment Level ***Drop down list***	2020 volumes [1]				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
City of Paso Robles Wastewater Treatment Plant	Discharge Point 001C	Outfall into Salinas River	3 400105001	River or creek outfall	No	Tertiary	2,464	2,464	0	0	0
						Total	2,464	2,464	0	0	0

[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.

[2] If the **Wastewater Discharge ID Number** is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility

NOTES:

Submittal Table 6-4 Retail: 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 Supplier Producing (Treating) the Recycled Water:	
Name of Supplier Operating the Recycled Water Distribution System:	
Supplemental Water Added in 2020 (volume) *Include units*	
Source of 2020 Supplemental Water	

Beneficial Use Type *Insert additional rows if needed.*	**Potential** Beneficial Uses of Recycled Water (Describe)	Amount of **Potential** Uses of Recycled Water (Quantity) *Include volume units* [1]	General Description of 2020 Uses	Level of Treatment *Drop down list*	2020 [1]	2025 [1]	2030 [1]	2035 [1]	2040 [1]	2045 [1] (opt)
Agricultural irrigation										
Landscape irrigation (exc golf courses)	Potable offset only			Tertiary	0	0	180	250	310	380
Golf course irrigation										
Commercial use										
Industrial use										
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
				Total:	0	0	180	250	310	380
				2020 Internal Reuse						

[1] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal 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. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.

Beneficial Use Type	2015 Projection for 2020 [1]	2020 Actual Use[1]
Insert additional rows as needed.		
Agricultural irrigation		
Landscape irrigation (exc golf courses)		
Golf course irrigation		
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
Total	0	0

[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.

NOTE:

Submittal 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.		
Section 6.5	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
Add additional rows as needed			
Master Planning	Master Plan for use of recycled water.	Completed 2014	Included in estimates below
Treatment system upgrade	Construction of the new Tertiary Treatment Project	Completed May 2019	Included in estimates below
Distribution system design	Currently in design phase and awaiting financing from the State's Revolving Fund (SRF) loan program	Ongoing, phased approach. Design completion dates TBD	Included in estimates below
Private Well Policy	Ordinance No. 1021 N.S. Encourages use of recycled water when it becomes available	Ordinance passed in 2016	750
Contracts with water users in City limits	Contracts with high water users inside of City limits	Unknown	520
Public Outreach	Notify/inform public on City development of recycled water supply, recycled water uses and safety, financial aspects of recycled water program, and promote recycled water use in the community	Ongoing	Not quantified but partially included in above estimate
Building Code Modifications and new ordinances	Incorporate CCR and other applicable requirements by reference	Unknown	Not quantifiable at this time
Contracts with water users outside of City limits	Potential for large irrigators outside of City limits to secure base demand during final planning stages of distribution system	Unknown	Not quantifiable at this time
SGMA-related Actions	The Paso Robles Recycled Water Program is part of the GSP-designated projects to reduce groundwater use and is supported by GSP participants	Unknown	Included in estimates above
Blended Water Project	Blended Water Project is in the conceptual stages for a pipeline system to connect to the City's Recycled Water Program and convey recycled water into the agricultural areas east of the City for irrigation use. The recycled water could be blended with surplus Nacimiento Water Project water, when available to reduce groundwater use.	Unknown	Not quantifiable at this time
		Total	1,270
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

Submittal 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 location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier* *This may be a range*
	Drop Down List (y/n)	*If Yes, Supplier Name*				
Add additional rows as needed						
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Submittal Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2020		
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
Groundwater (not desalinated)	Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin (3-004.06)	954	Drinking Water	61,100 AFY (Sustainable Yield from GSP)
Surface water (not desalinated)	Salinas River water through river wells	3,609	Drinking Water	4,600 AFY SWRCB Permit
Purchased or Imported Water	Nacimiento Water from water treatment plant	968	Drinking Water	6,488 AFY Contract
Purchased or Imported Water	Nacimiento Water from Recovery Well	214	Drinking Water	Included in above
	Total	5,745		0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*				
NOTES:				

Submittal Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		**2025**		**2030**		**2035**		**2040**		**2045** (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Groundwater (not desalinated)	Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin (3-004.06)	2,126	61,100 AFY (Sustainable Yield from GSP)	2,333	61,100 AFY (Sustainable Yield from GSP)	2,550	61,100 AFY (Sustainable Yield from GSP)	2,378	61,100 AFY (Sustainable Yield from GSP)	1,797	61,100 AFY (Sustainable Yield from GSP)
Surface water (not desalinated)	Salinas River water through river wells	3,000	4,600 AFY SWRCB Permit	3,200	4,600 AFY SWRCB Permit	3,500	4,600 AFY SWRCB Permit	4,200	4,600 AFY SWRCB Permit	4,400	4,600 AFY SWRCB Permit
Purchased or Imported Water	Nacimiento Water from water treatment plant	1,120	6,488 AFY Contract	1,120	6,488 AFY Contract	1,120	6,488 AFY Contract	1,120	6,488 AFY Contract	2,017	6,488 AFY Contract
Purchased or Imported Water	Nacimiento Water from Recovery well	269	Included in above	269	Included in above	269	Included in above	269	Included in above	269	Included in above
Recycled Water	Potable Offset	0	More recycled water available	180	More recycled water available	250	More recycled water available	310	More recycled water available	380	More recycled water available
	Total	6,515	0	7,102	0	7,689	0	8,277	0	8,863	0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	**Base Year** If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	**Available Supplies if Year Type Repeats**	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		☐	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	**% of Average Supply**
Average Year	2018	5812	100%
Single-Dry Year	2013	7000	100%
Consecutive Dry Years 1st Year	2012	6694	100%
Consecutive Dry Years 2nd Year	2013	7000	100%
Consecutive Dry Years 3rd Year	2014	6269	100%
Consecutive Dry Years 4th Year	2015	5153	100%
Consecutive Dry Years 5th Year	2016	5162	100%

Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

***Units of measure (AF, CCF, MG**) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 *(Opt)*
Supply totals *(autofill from Table 6-9)*	6,515	7,102	7,689	8,277	8,863
Demand totals *(autofill from Table 4-3)*	6,515	7,102	7,689	8,277	8,863
Difference	0	0	0	0	0
NOTES:					

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*	6,515	7,102	7,689	8,277	8,863
Demand totals*	6,515	7102	7,689	8,277	8,863
Difference	0	0	0	0	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES:					

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	6,515	7,102	7,689	8,277	8,863
	Demand totals	6,515	7,102	7,689	8,277	8,863
	Difference	0	0	0	0	0
Second year	Supply totals	6,515	7,102	7,689	8,277	8,863
	Demand totals	6,515	7,102	7,689	8,277	8,863
	Difference	0	0	0	0	0
Third year	Supply totals	6,515	7,102	7,689	8,277	8,863
	Demand totals	6,515	7,102	7,689	8,277	8,863
	Difference	0	0	0	0	0
Fourth year	Supply totals	6,515	7,102	7,689	8,277	8,863
	Demand totals	6,515	7,102	7,689	8,277	8,863
	Difference	0	0	0	0	0
Fifth year	Supply totals	6,515	7,102	7,689	8,277	8,863
	Demand totals	6,515	7,102	7,689	8,277	8,863
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals	6,515	7,102	7,689	8,277	8,863
	Demand totals	6,515	7,102	7,689	8,277	8,863
	Difference	0	0	0	0	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)

2021	Total
Total Water Use	5,889
Total Supplies	5,889
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%

2022	Total
Total Water Use	6,053
Total Supplies	6,053
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%

2023	Total
Total Water Use	6,207
Total Supplies	6,207
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%

2024	Total
Total Water Use	6,361
Total Supplies	6,361
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%

2025	Total
Total Water Use	6,515
Total Supplies	6,515
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%

Submittal Table 8-1
Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions (*Narrative description*)
1	Up to 10%	Voluntary. Any short-term supply reduction. Anticipated beginning of drought. Production within 10% of peak hour demands or supply totals are reduced by 10%. Response: reduce demands by up to 10% (see Table 8-2).
2	Up to 20%	Mandatory. Moderate supply reductions, including but not limited to short term supply limitations (i.e., droughts, infrastructure issues, etc.). Production is 10% to 20% less than peak hour demands, or total supplies are reduced by 20%. Response: reduce demands by up to 20% (see Table 8-2).
3	Up to 30%	Mandatory. Moderate to severe supply reductions, including but not limited to moderate supply shortages (i.e., prolonged droughts). Production is 20% to 30% less than peak hour demands, or total supplies are reduced by 30%. Response: reduce demands by up to 30% (see Table 8-2).
4	Up to 40%	Mandatory. Severe water supply reductions, including but not limited to supply disruption (i.e., water quality issues or natural disasters) or prolonged droughts. Production is 30% to 40% less than peak hour demands, or total supplies are reduced by 40%. Response: reduce demands by up to 40% (see Table 8-2).
5	Up to 50%	Mandatory. Critical water supply reductions, including but not limited to supply disruption or prolonged drought. Production is 40% to 50% less than peak hour demands, or total supplies are reduced by 50%. Response: reduce demands by up to 50% (see Table 8-2).
6	>50%	Mandatory. Emergency water supply reductions, including but not limited to supply disruption or prolonged droughts. Production is over 50% less than peak hour demands, or total supplies are reduced by over 50%. Response: reduction in demands by over 50% (see Table 8-2).

NOTES:

Submittal Table 8-2: Demand Reduction Actions

Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
In effect at all times	Landscape - Restrict or prohibit runoff from landscape irrigation	Already in effect	-	Yes
In effect at all times	Landscape - Limit landscape irrigation to specific times	Already in effect	Prohibit watering during and within 48 hours following measurable rainfall	Yes
In effect at all times	CII - Lodging establishment must offer opt out of linen service	Already in effect	-	Yes
In effect at all times	CII - Commercial kitchens required to use pre-rinse spray valves	Already in effect	For new or remodeled	Yes
In effect at all times	CII - Restaurants may only serve water upon request	Already in effect	-	Yes
In effect at all times	Other water feature or swimming pool restriction	Already in effect	No overfilling swimming pools and spas	Yes
In effect at all times	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Already in effect	Within 7 days	Yes
In effect at all times	Water Features - Restrict water use for decorative water features, such as fountains	Already in effect	Water fountain or other decorative water feature must use re-circulated water	Yes
1	Expand Public Information Campaign	Estimated at 2%		No
1	Other - Prohibit use of potable water for construction and dust control	Estimated at 2%	-	No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Estimated at 2%	Within 5 days	No
2	Landscape - Limit landscape irrigation to specific days	Estimated at 10%	2 days per week	Yes
2	Other	Unknown	City may suspend new hydrant meters	No
2	Other	Estimated at 4%	City may implement water allocations per customer account	Yes
3	Other	Estimated at 2%	Filling of ornamental lakes and ponds is generally prohibited	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	Estimated at 2%	-	Yes
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Estimated at 2%	Within 2 days (3 days for rental properties)	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Estimated at 2%	-	Yes
3	Other - Prohibit use of potable water for washing hard surfaces	Estimated at 2%	-	Yes
3	Other	Unknown	Possible limitations on new water services and annexations	No
4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Estimated at 2%	Within 1 day (3 days for rental properties)	Yes
4	Other water feature or swimming pool restriction	Estimated at 5%	Prohibit filling of pools and spas	Yes
4	Decrease line flushing	Estimated at 2%	-	No
5	Landscape - Prohibit all landscape irrigation	Estimated at 10%	-	Yes
5	Moratorium or Net Zero Demand Increase on New Connections	Unknown	Net zero demand increase on new connections	No
5	Expand Public Information Campaign	Included in others	-	No
6	Other	Unknown	No new agreements to provide water	No
6	Increase Water Waste Patrols	Estimated at 2%	-	No

NOTES: During a declared water shortage, all water customers shall comply with all water conditions of the previous stages.

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
Add additional rows as needed			
NOTES: At this point in time, the City has no supply augmentation or other actions planned to secure additional supplies in emergencies or droughts.			

Submittal Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
see note below		
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
San Luis Obispo County	Yes	Yes
NOTES: City of Paso Robles prepared the report. See the table in Section 2.2 for a complete list of entities contacted.		

Appendices

Appendix A

Adoption Resolutions, Public Hearing Notice, and Notifications

RESOLUTION 21-090

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN

WHEREAS, the California Urban Water Management Planning Act ("Act") (California Water Code Sections 10610 et. seq.) requires urban water suppliers providing municipal water directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to develop an Urban Water Management Plan; and

WHEREAS, the Act requires that an urban water management plan be updated every five years and submitted to the California Department of Water Resources by July, in the years ending in 1 and 6; and

WHEREAS, the City of Paso Robles last updated its Urban Water Management Plan in 2016; and

WHEREAS, the City's 2020 Urban Water Management Plan must be adopted, after public review and hearing, and filed with the California Department of Water Resources; and

WHEREAS, a Public Draft 2020 Urban Water Management Plan has been prepared and circulated for public review; and all comments received have been reviewed and considered; and, following publication of notices on June 21st and June 28th, 2021, a properly noticed public hearing was held by the City Council on July 8, 2021, prior to adoption of the Final Urban Water Management Plan, all in compliance with the requirements of the Act; and

WHEREAS, the City Council has examined and reviewed said plan.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The City hereby adopts the Urban Water Management Plan with the proposed changes, attached hereto and incorporated herein by reference, and orders the plan to be filed with the City Clerk;

Section 2. The Water Resources Manager is hereby authorized and directed to file the Final Urban Water Management Plan with the California Department of Water Resources, submit copies as required by the Act, make available for public review, and take actions necessary or advisable to carry out the purpose of this resolution.

APPROVED this 8th day of July, 2021, by the following vote:

AYES: Hamon, Gregory, Garcia, Strong, Martin

Steven W. Martin, Mayor

ATTEST:

Melissa Boyer, City Clerk

RESOLUTION 21-091

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES ADOPTING THE 2020 WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the California Urban Water Management Planning Act ("Act") (California Water Code Sections 10610 et. seq.) requires urban water suppliers providing municipal water directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to develop an Urban Water Management Plan and separate Water Shortage Contingency Plan; and

WHEREAS, the City's 2020 Water Shortage Contingency Plan must be adopted, after public review and hearing, and filed with the California Department of Water Resources; and

WHEREAS, a Public Draft 2020 Water Shortage Contingency Plan has been prepared and circulated for public review; and all comments received have been reviewed and considered; and, after public of notices on June 21st and June 28th, 2021, a properly noticed public hearing was held by the City Council on July 8, 2021, prior to adoption of the Final Water Shortage Contingency Plan, all in compliance with the requirements of the Act; and

WHEREAS, the City Council has examined and reviewed said plan.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The City hereby adopts the Water Shortage Contingency Plan with proposed changes, attached hereto and incorporated herein by reference, and orders the plan to be filed with the City Clerk;

Section 2. The Water Resources Manager is hereby authorized and directed to file the Final Water Shortage Contingency Plan with the California Department of Water Resources, submit copies as required by the Act, make available for public review, and take actions necessary or advisable to carry out the purpose of this resolution.

APPROVED this 8th day of July, 2021, by the following vote:

AYES: Hamon, Gregory, Garcia, Strong, Martin

Steven W. Martin, Mayor

ATTEST:

Melissa Boyer, City Clerk

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
14027	81261	Print Legal Ad - IPL0027939	Prop. 2020 Urban Water	$255.60	2	2.91

Attention: Vikki Kuntz

CITY OF PASO PUBLIC WORKS
1000 SPRING ST
PASO ROBLES, CA 93446

CITY OF EL PASO DE ROBLES
NOTICE OF PUBLIC HEARING ON THE PROPOSED 2020 URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN

NOTICE IS HEREBY GIVEN that the City Council of the City of Paso Robles will hold a public hearing on July 8th, 2021, at 6:30 P.M. to consider adoption of the proposed 2020 Urban Water Management Plan (UWMP) and the Water Shortage Contingency Plan (WSCP). City Council meeting audio and presentations are streamed live at www.prcity.com/youtube. The call-in number to provide public comment via phone during live meetings is 805-865-PASO (7276). Additional public hearing information is listed below.
Date and Time: July 8, 2021, 6:30 PM
Location: City Council Chamber, 1000 Spring Street, Paso Robles, CA 93446
Contact: 805.237.3888 (City Clerk prior to meeting) Email: CityClerk@prcity.com
The hearing will address the following topics:

- Water supply and demand projections for the City of Paso Robles
- Water demand management measures
- Water shortage contingency plan

Copies of the UWMP and WSCP (Appendix D of the UWMP) are available for public review and inspection on the City's website: www.prcity.com and at the Paso Robles City Library, 1000 Spring Street, Paso Robles, California.
Interested persons may submit written comments to Kirk Gonzalez via email to KGonzalez@prcity.com or mailed to City of Paso Robles, Water Resources Manager, 1000 Spring Street, Paso Robles, CA 93446, prior to July 7th, 2021.
At the time and place noted above, all persons interested in the above matters may appear and be heard.
IPL0027939
Jun 21,28 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: 06/21/2021
Ending Issue of: 06/28/2021

Jane E. Durrand

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 06/21/2021 To 06/28/2021 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!

El Paso de Robles California

About Our Water
Conservation
Groundwater Basin Management Plan (PDF)
Meter Information
Nacimiento Water Project
Paso Robles Basin
Rainfall Totals
Recycled Water Program
Urban Water Management Plan (PDF)
Public Draft 2020 Urban Water Management Plan(PDF)
Utilities & Billing
Water Action Request Form

WATER

Water Conservation

Water ... Use it Wisely

The City continues to implement water use restrictions as required by the State of California. Find out more about Paso Robles Water Conservation efforts.

2020 Draft Urban Water Management Plan

The 2020 Draft Urban Water Management Plan is available for review here: Public Draft Urban Water Management Plan (PDF).

The public is invited to provide comments on the draft to the city (water@prcity.com) before July 7th and/or attend the public hearing scheduled for the July 8th, 2021, during the City Council meeting.

About the Division

The City water system serves approximately 9,200 residential, 800 commercial, and 400 irrigation customers within the City of Paso Robles. The Paso Robles Water Division (PRWD) is committed to providing customers with a reliable high quality water supply. There are 14 full-time staff to operate and maintain:

- 19 wells
- Two arsenic removal treatment systems
- One micro-filtration water treatment plant
- Six booster stations (used to pump to higher elevations)
- Four reservoirs (providing over 12 million gallons of storage)
- 172 miles of water main

To ensure water quality is continuously maintained, PRWD adheres to a rigorous sampling and laboratory-analyses program in accordance with state and federal drinking water laws.

Responsibilities

PRWD maintains the distribution system, fixes leaks, installs customer connections, and fire hydrants. The crew works closely with contractors to monitor and enforce the City's specifications for water system construction, performs plan checks for new developments and inspects installations.

Other responsibilities include monitoring and enforcing the City's cross-connection program. A cross-connection is a connection to any part of the public

Contact Us

Water Production & Distribution Division
Email the Water Division

Physical Address
1230 Paso Robles Street
Paso Robles, CA 93446

Phone: 805-237-3866
Fax: 805-237-6596

Water Billing Phone:
805-237-3996

Hours
Monday - Friday
7 a.m. - 3:30 p.m.

Directory

Documents

- Water Rates (PDF)
- Nacimiento Lake Water - Reliable New Water Supply (PDF)
- Prequalified Contractors and SCADA System Suppliers Contractors List (PDF)

Quick Links

- Annual Water Quality Reports
- San Luis Obispo County Integrated Regional Water Management Plan (IRWM)
- Waterwise Landscaping
- Water Billing and Utilities

View All

FAQs

- What is the hardness of my water?
- What is my water pressure?
- How do I turn my water off?
- How can I change my billing

From: Kirk Gonzalez
To: Kirk Gonzalez
Subject: Paso Robles 2020 UWMP Update
Date: Wednesday, June 16, 2021 6:32:27 PM

The City of Paso Robles has our Draft 2020 Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP) available for public review via the City's website (www.prcity.com) and at the City's offices at the address below.

City of Paso Robles Library
1000 Spring Street
Paso Robles, CA 93446

The City will hold a public hearing on the 2020 UWMP and WSCP, which is currently scheduled to take place on July 8, 2021. City Council meeting audio and presentations are streamed live at www.prcity.com/youtube. The call-in number to provide public comment via phone during live meetings is 805-865-PASO (7276). Additional public hearing information is listed below.

Date and Time: July 8, 2021 6:30 PM
Location: City Council Chamber, 1000 Spring Street, Paso Robles, CA 93446
Contact: 805.237.3888 (City Clerk prior to meeting) Email: Email the City Clerk
Link: Watch on YouTube

We encourage local agencies, the public, and other interested parties to participate in the development of the 2020 UWMP and WSCP by providing written comments prior to the public hearing. Written comments can be emailed to KGonzalez@prcity.com or mailed to City of Paso Robles, Water Resources Manager, 1000 Spring Street, Paso Robles, CA 93446 no later than July 7, 2021.

Thank you for your involvement with the City's 2020 UWMP and WSCP update process. If you have any questions or concerns regarding the update, please contact me at (805) 227-7200.

Kirk Gonzalez, P.E.
Interim Water Resources Mgr.

City of Paso Robles
1000 Spring St, Paso Robles, CA 93446
KGonzalez@prcity.com
805-227-7238

From: Kirk Gonzalez
To: Kirk Gonzalez
Subject: Paso Robles 2020 UWMP Update
Date: Wednesday, May 5, 2021 5:25:18 PM

The City of Paso Robles will have our Draft 2020 Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP) available for public review by May 17, 2021 via the City's website (www.prcity.com) and at the City's offices at the address below.

City of Paso Robles Library
1000 Spring Street
Paso Robles, CA 93446

The City will hold a public hearing on the 2020 UWMP and WSCP, which is currently scheduled to take place on June 15, 2021. City Council meeting audio and presentations are streamed live at www.prcity.com/youtube. The call-in number to provide public comment via phone during live meetings is 805-865-PASO (7276). Additional public hearing information is listed below.

Date and Time: June 15, 2021 6:30 PM
Location: City Council Chamber, 1000 Spring Street, Paso Robles, CA 93446
Contact: 805.237.3888 (City Clerk prior to meeting) Email: Email the City Clerk
Link: Watch on YouTube

We encourage local agencies, the public, and other interested parties to participate in the development of the 2020 UWMP and WSCP by providing written comments prior to the public hearing. Written comments can be emailed to KGonzalez@prcity.com or mailed to City of Paso Robles, Water Resources Manager, 1000 Spring Street, Paso Robles, CA 93446 no later than May 28, 2021.

Thank you for your involvement with the City's 2020 UWMP and WSCP update process. If you have any questions or concerns regarding the update, please contact me at (805) 227-7200.

Kirk Gonzalez, P.E.
Interim Water Resources Mgr.

City of Paso Robles
1000 Spring St, Paso Robles, CA 93446
KGonzalez@prcity.com
805-227-7238

City of Paso Robles 2020 Urban Water Management Plan
Notice of Review and Plan Update

March 3, 2021

The City of Paso Robles is in the process of updating its Urban Water Management Plan (UWMP) in accordance with the California Urban Water Management Planning Act, the Water Conservation Act of 2009, and other applicable laws. The City is required to update its UWMP every five years; the last UWMP was updated in 2016. The UWMP helps guide the City's water management efforts for the next 20 years and beyond.

Public Draft Review. The City plans to make a copy of the draft 2020 UWMP available for public review by May 5, 2021 via the City's website (www.prcity.com) and at the City's offices at the address below.

City of Paso Robles Library
1000 Spring Street
Paso Robles, CA 93446

Public Hearing. The City will hold a public hearing on the 2020 UWMP, which is currently scheduled to take place on June 15, 2021. City Council meeting audio and presentations are streamed live at www.prcity.com/youtube. The call-in number to provide public comment via phone during live meetings is 805-865-PASO (7276). Additional public hearing information is listed below.

Date and Time: June 15, 2021 6:30 PM
Location: City Council Chamber, 1000 Spring Street, Paso Robles, CA 93446
Contact: 805.237.3888 (City Clerk prior to meeting) Email: Email the City Clerk
Link: Watch on YouTube

Public Participation, Comments and Questions. The City encourages local agencies, the public, and other interested parties to participate in the development of the 2020 UWMP by providing written comments on the public draft prior to the public hearing. Written comments can be emailed to KGonzalez@prcity.com or mailed to City of Paso Robles, Water Resources Manager, 1000 Spring Street, Paso Robles, CA 93446 no later than May 28, 2021.

Thank you for your involvement with the City's 2020 UWMP update process. Should you have any questions or concerns, please contact Kirk Gonzalez at (805) 227-7200.

Kirk Gonzalez, P.E.
Interim Water Resources Manager, City of Paso Robles

From:	Kirk Gonzalez
To:	Kirk Gonzalez
Subject:	Paso Robles 2020 UWMP Update
Date:	Wednesday, March 3, 2021 6:25:08 AM
Attachments:	Paso Robles 2020 UWMP Update Notification.pdf

The City of Paso Robles is in the process of updating its Urban Water Management Plan (UWMP) in accordance with the California Urban Water Management Planning Act, the Water Conservation Act of 2009, and other applicable laws. The City is required to update its UWMP every five years; the last UWMP was updated in 2016. The UWMP helps guide the City's water management efforts for the next 20 years and beyond.

The City plans to make a copy of the draft 2020 UWMP available for public review by May 5, 2021 via the City's website (www.prcity.com) and at the City's offices at the address below.

City of Paso Robles Library
1000 Spring Street
Paso Robles, CA 93446

The City will hold a public hearing on the 2020 UWMP, which is currently scheduled to take place on June 15, 2021. City Council meeting audio and presentations are streamed live at www.prcity.com/youtube. The call-in number to provide public comment via phone during live meetings is 805-865-PASO (7276). Additional public hearing information is listed below.

Date and Time: June 15, 2021 6:30 PM
Location: City Council Chamber, 1000 Spring Street, Paso Robles, CA 93446
Contact: 805.237.3888 (City Clerk prior to meeting) Email: Email the City Clerk
Link: Watch on YouTube

We encourage local agencies, the public, and other interested parties to participate in the development of the 2020 UWMP by providing written comments on the public draft prior to the public hearing. Written comments can be emailed to KGonzalez@prcity.com or mailed to City of Paso Robles, Water Resources Manager, 1000 Spring Street, Paso Robles, CA 93446 no later than May 28, 2021.

Thank you for your involvement with the City's 2020 UWMP update process. If you have any questions or concerns regarding the update, please contact me at (805) 227-7200.

Kirk Gonzalez, P.E.
Interim Water Resources Mgr.

City of Paso Robles
1000 Spring St, Paso Robles, CA 93446
KGonzalez@prcity.com
805-227-7238

Appendix B

2015 to 2019 AWWA Water Audits

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

American Water Works Association.
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? Click to access definition
+ Click to add a comment

Water Audit Report for: Paso Robles
Reporting Year: 2015 (1/2015 - 12/2015)

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:	9	1,650.885	MG/Yr	9			MG/Yr
Water imported:	8	28.336	MG/Yr	9			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: 1,679.221 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	8	1,538.889	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	n/a	0.000	MG/Yr			
Unbilled unmetered:	5	20.990	MG/Yr	1.25%		MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

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

AUTHORIZED CONSUMPTION: 1,559.879 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 119.342 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		4.198	MG/Yr	0.25%		MG/Yr

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

Customer metering inaccuracies:	3	0.000	MG/Yr			MG/Yr
Systematic data handling errors:	6	3.847	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: 8.045 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 111.296 MG/Yr

WATER LOSSES: 119.342 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 140.332 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	174.0	miles
Number of active AND inactive service connections:	7	10,626	
Service connection density:		61	conn./mile main
Are customer meters typically located at the curbstop or property line?			
Average length of customer service line:	10	0.0	ft
Average operating pressure:	4	70.0	psi

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

COST DATA

Total annual cost of operating water system:	4	$15,400,000	$/Year	
Customer retail unit cost (applied to Apparent Losses):	10	$4.10	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	8	$2,010.00	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 73 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: Customer metering inaccuracies
2: Total annual cost of operating water system
3: Volume from own sources

AWWA Free Water Audit Software:
User Comments

WAS v5.0
American Water Works Association.
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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:	Source: DWR Water system statistics spreadsheet.
Vol. from own sources: Master meter error adjustment:	
Water imported:	Amount of WTP only and does not include import for recharge. Source: DWR Water system statistics spreadsheet.
Water imported: master meter error adjustment:	
Water exported:	
Water exported: master meter error adjustment:	
Billed metered:	Source: DWR Water system statistics spreadsheet.
Billed unmetered:	
Unbilled metered:	
Unbilled unmetered:	

Audit Item	Comment
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

American Water Works Association.
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Water Audit Report for:	**Paso Robles**	
Reporting Year:	**2015**	**1/2015 - 12/2015**
Data Validity Score:	**73**	

Water Exported
0.000

Billed Water Exported

Own Sources
(Adjusted for known errors)
1,650.885

Water Supplied
1,679.221

Authorized Consumption
1,559.879

Billed Authorized Consumption
1,538.889

Billed Metered Consumption (water exported is removed)
1,538.889

Billed Unmetered Consumption
0.000

Revenue Water
1,538.889

Unbilled Authorized Consumption
20.990

Unbilled Metered Consumption
0.000

Unbilled Unmetered Consumption
20.990

Non-Revenue Water (NRW)
140.332

Water Losses
119.342

Apparent Losses
8.045

Unauthorized Consumption
4.198

Customer Metering Inaccuracies
0.000

Systematic Data Handling Errors
3.847

Real Losses
111.296

Water Imported
28.336

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:
Reporting Worksheet

WAS v5.0

American Water Works Association.
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? Click to access definition
\+ Click to add a comment

Water Audit Report for: City of Paso Robles (4010007)
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' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

				Pcnt:	Value:	
Volume from own sources:	6	1,681.912	MG/Yr	5	19.524	MG/Yr
Water imported:	n/a		MG/Yr			MG/Yr
Water exported:	n/a		MG/Yr			MG/Yr
WATER SUPPLIED:		**1,662.388**	MG/Yr			

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

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	7	1,587.864	MG/Yr			
Billed unmetered:	n/a		MG/Yr			
Unbilled metered:	n/a		MG/Yr			
Unbilled unmetered:	5	4.205	MG/Yr		4.205	MG/Yr
AUTHORIZED CONSUMPTION:		**1,592.069**	MG/Yr			

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

WATER LOSSES (Water Supplied - Authorized Consumption)

70.319 MG/Yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:	4.156	MG/Yr	0.25%		MG/Yr

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

Customer metering inaccuracies:	3	16.039	MG/Yr	1.00%	MG/Yr
Systematic data handling errors:		3.970	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: **24.165** MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **46.154** MG/Yr

WATER LOSSES: **70.319** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **74.524** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	174.0	miles
Number of active AND inactive service connections:	8	10,648	
Service connection density:		61	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	74.3	psi

COST DATA

Total annual cost of operating water system:	10	$14,080,690	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$8.30	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	7	$1,449.75	$/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: Billed metered

AWWA Free Water Audit Software:
User Comments

WAS v5.0
American Water Works Association.
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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:	Source from 2016 water system production records. Data from manual meter readings and checked against SCADA data. DVG: 100% of sources are metered. Meter accuracy testing is typically conducted annually, however, in 2016, O&M on tree active supply sources conincided with meter testing event in July and resulted in those meters not being tested. Note that meter test data from 2015 are available. Less than 25% of meters are outside of +/-6% (18.8%). DVG 6 selected per guidance document and confirmation from Will Jernigan 5/22/17.
Vol. from own sources: Master meter error adjustment:	Input for error adjustment was calculated as flow-weighted aggregate error using availale meter test data (see descrip. for Vol. from own sources, above). Tank levels are monitored and reviewed daily and net change in storage is accounted for in the MMSEA input.
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:	Source DWR Statistics 2016 tabulation, from water customer billing system. DVG7: All DVG6 criteria met or exceeded and the following from DVG8:100% of customers with vol-based billng. Average and month read success rate of >95%. Also piloting and planning for AMR/AMI. Computerized meter tracking and billing systems with good meter records. Meter tracking (age and through-put) guide regular replacements. Auditing of billing records takes place by utility personnel.
Billed unmetered:	Per DVG criteria, N/A: policy is that all metered and auditing shows all customers are metered.
Unbilled metered:	Per DVG criteria, N/A: Billing-exempt consumption is unmetered. Estimates are available.

Audit Item	Comment
Unbilled unmetered:	Per Wave 2 Audit call, applied new California-specific default of 0.25% to production: 1,681.912 MG * 0.0025 = 4.20478 MG. Effort has been made to track firefighting uses by providing meters, however has not been effective.
Unauthorized consumption:	Unauthorized consumption in 2016 included Chimney Fire response, where the majority of fire teams drew water from unmetered hydrants without city authorization, despite city providing multiple meters for hydrants for this emergency use. Other unauthorized consumption is being investigated by the City.
Customer metering inaccuracies:	For 2014, 2015, 2016, the city replaced approximately 7.5%, 7.1%, and 7.6% of installed customer meters, respectively. Reliable electronic recordkeeping and policies for meters is in-palce. All installed meters have less than 4,000 HCF read (no high-read meters in place). Estimated customer meter inaccuracy (%) recognizes that meters with throughput > 4,000 HCF and aged meters have been replaced with new meters, and new meter accuracy certified to +-1.5%.
Systematic data handling errors:	DVG 5 (automatic w/ default entry): Policy for new account activation and billing oversight reviewed. Computerized billing includes array of reporting features used to confirm data and zero reads and low reads reported and checked regularly. Adjustments well-understood and documented in billing system and internal checks are conducted regularly. Consumption volume variations to billing lapses is quantified and reviewed.
Length of mains:	Lengths based on GIS records and GIS-linked field validation and tracking program. DVG 8: Policies and procedures are in place for tracking and updating new mains in electronically w/ GIS (infoMap).
Number of active AND inactive service connections:	Source: Number of connections from GIS and billing system. GIS inframap software used to track installations and removal of meters and linked with billing system. All but one DVG 8 criteria met, .: DVG 7. Error in count of number of service connnections is believed to be no more than 3%. Field verifications take place according to various field activities (checks, low read or re-reads, changes, etc) and as part of monthly meter readings, and internal checks are made, however no randomized field auditing is in-place.
Average length of customer service line:	Meters located outside of customer bldgs at curb. DVG automatically applied.
Average operating pressure:	Source: Reported value is service-weighted average derived using average Hydraulic Grade Line for each pressure zone (confirmed w/ SCADA) and weighted for customer services within each pressure zone. Customer service elevations estimated using City's aerial survey contour elevations and lat/long coordinates for each service, from GIS data. DVG 6: All DVG 6 criteria met or exceeded. Most DVG 8 criteria met.
Total annual cost of operating water system:	Water System Operating expenses includes utilities billing for water, water production and distribution, water treatment & WC operations, including depreciation, and other operating expenses including NWP costs and debt service, capital equipment, GW planning.
Customer retail unit cost (applied to Apparent Losses):	
Variable production cost (applied to Real Losses):	Water system variable production cost from water operations and rate study Oct 2015. Annual variable costs vary with supply sources uses.

AWWA Free Water Audit Software: Water Balance

WAS v5.0

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Water Audit Report for:	City of Paso Robles (4010007)	
Reporting Year:	2016	1/2016 - 12/2016
Data Validity Score:	65	

Own Sources (Adjusted for known errors)
1,662.388

Water Imported
0.000

System Input
1,662.388

Water Exported
0.000

Water Supplied
1,662.388

Authorized Consumption
1,592.069

Billed Authorized Consumption
1,587.864

Billed Water Exported
Billed Metered Consumption (water exported is removed)
1,587.864

Billed Unmetered Consumption
0.000

Unbilled Authorized Consumption
4.205

Unbilled Metered Consumption
0.000

Unbilled Unmetered Consumption
4.205

Water Losses
70.319

Apparent Losses
24.165

Unauthorized Consumption
4.156

Customer Metering Inaccuracies
16.039

Systematic Data Handling Errors
3.970

Real Losses
46.154

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
1,587.864

Non-Revenue Water (NRW)
74.524

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

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? Click to access definition
+ Click to add a comment

Water Audit Report for: City of Paso Robles (4010007)
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.

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

Master Meter and Supply Error Adjustments

WATER SUPPLIED

				Pcnt:	Value:	
Volume from own sources:	7	1,893.738	MG/Yr	5	48.856	MG/Yr
Water imported:	n/a		MG/Yr			MG/Yr
Water exported:	n/a		MG/Yr			MG/Yr

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

WATER SUPPLIED: 1,844.882 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	7	1,722.093	MG/Yr			
Billed unmetered:	n/a		MG/Yr			
Unbilled metered:	6	9.301	MG/Yr			
Unbilled unmetered:	5	4.612	MG/Yr		4.612	MG/Yr

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

AUTHORIZED CONSUMPTION: 1,736.006 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 108.876 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		4.612	MG/Yr	0.25%		MG/Yr

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

Customer metering inaccuracies:	5	26.366	MG/Yr	1.50%		MG/Yr
Systematic data handling errors:		4.305	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: 35.284 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 73.592 MG/Yr

WATER LOSSES: 108.876 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 122.789 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	327.0	miles
Number of active AND inactive service connections:	6	11,583	
Service connection density:		35	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 | 73.9 psi

COST DATA

Total annual cost of operating water system:	8	$11,653,411	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$4.83	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	7	$1,896.15	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 68 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:
User Comments

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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:	Source from water system production records. Data from manual meter readings and checked against SCADA data. DVG notes:100% production sources are metered. Accuracy testing is conducted annually. Less than 10% of meters were outside of 6%+/- (6.7%, see volume from own and meter accuracy spreadsheet calc.). DVG8 would apply, however not all meters can be recalibrated. Therefore, DVG 7.
Vol. from own sources: Master meter error adjustment:	Input for error adjustment was calculated as flow-weighted aggregate error using meter test data (see Vol. from own sources, above). Tank levels are monitored and reviewed daily and net change in storage is accounted for in the Master Meter & Supply Error Adjustments input.
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:	Source DWR Statistics 2017 tabulation, from water customer billing system. DVG7: All DVG6 criteria met or exceeded and the following from DVG8: 100% of customers with volume-based billng. Average and month read success rate of >95%. Also piloting and planning for AMR/AMI. Computerized meter tracking and billing systems with good meter records. Meter tracking (age and through-put) guide regular replacements. Auditing of billing records takes place by utility personnel.
Billed unmetered:	Per DVG criteria, N/A: policy is that all metered. Auditing confirms customers are metered.
Unbilled metered:	Amounts from distribution system flushing conducted during 2017.

Audit Item	Comment
Unbilled unmetered:	Per "Wave 2 TAP" call for City's CY2016 audit, applied new California-specific default of 0.25% to production: 1,844.882 MG * 0.0025 = 4.20478 MG. Effort has been made to track firefighting uses by providing meters, however has not been effective.
Unauthorized consumption:	Unauthorized consumption in 2017 included regional fire responses, where the majority of fire teams drew water from unmetered hydrants without city authorization, despite city providing multiple meters for hydrants for this emergency use. Other unauthorized consumption is being investigated by the City.
Customer metering inaccuracies:	For 2014, 2015, 2016, & 2017 the city replaced approximately 7.5%, 7.1%, 7.6%, and 2.7% of installed customer meters, respectively. Reliable electronic recordkeeping and policies for meters is in-place. All installed meters have less than 4,000 HCF read (no high-read meters in place). Estimated customer meter inaccuracy (%) recognizes that meters with throughput > 4,000 HCF and aged meters have been replaced with new meters, and new meter accuracy certified to +-1.5%.
Systematic data handling errors:	DVG 5 (automatic w/ default entry): Policy for new account activation and billing oversight reviewed. Computerized billing includes array of reporting features used to confirm data and zero reads and low reads reported and checked regularly. Adjustments well-understood and documented in billing system and internal checks are conducted regularly. Consumption volume variations to billing lapses is quantified and reviewed.
Length of mains:	Lengths based on GIS records and GIS-linked field validation and tracking program. DVG 8: Policies and procedures are in place for tracking and updating new mains in electronically w/ GIS (infoMap).
Number of active AND inactive service connections:	Source: Number of connections from GIS and billing system. GIS inframap software used to track installations and removal of meters and linked with billing system. All but one DVG 8 criteria met, .: DVG 7. Error in count of number of service connnections is believed to be no more than 3%. Field verifications take place according to several field activities (checks, low read or re-reads, changes, etc) and as part of monthly meter readings, and internal checks are made, however no randomized field auditing is in-place.
Average length of customer service line:	Meters located outside of customer bldgs at curb. DVG automatically applied.
Average operating pressure:	Source: Reported value is service-weighted average derived using average Hydraulic Grade Line for each pressure zone (confirmed w/ SCADA) and weighted for customer services within each pressure zone. Customer service elevations estimated using City's aerial survey contour elevations and lat/long coordinates for each service, from GIS data. DVG 6: All DVG 6 criteria met or exceeded. Most DVG 8 criteria met, however average pressure is estimated based on SCADA and GIS methods.
Total annual cost of operating water system:	Water System Operating expenses includes utilities billing for water, water production and distribution, water treatment & WC operations, including depreciation, and other operating expenses including NWP costs and debt service, capital equipment, and GW planning.
Customer retail unit cost (applied to Apparent Losses):	Variable rate of $4.83/ HCF entered. Amount does not include base fee of $5/ account/ month in effect in 2017. Note that if applied to losses, only variable portion of the rate would apply, not base monthly fee.
Variable production cost (applied to Real Losses):	Water system variable production cost from water operations and rate study Oct 2015. Annual variable costs vary with supply sources uses.

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WAS v5.0

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Water Audit Report for:	City of Paso Robles (4010007)	
Reporting Year:	2017	1/2017 - 12/2017
Data Validity Score:	68	

Own Sources (Adjusted for known errors)
1,844.882

Water Imported
0.000

System Input
1,844.882

Water Exported
0.000

Water Supplied
1,844.882

Authorized Consumption
1,736.006

Billed Authorized Consumption
1,722.093

Billed Water Exported

Billed Metered Consumption (water exported is removed)
1,722.093

Billed Unmetered Consumption
0.000

Unbilled Authorized Consumption
13.913

Unbilled Metered Consumption
9.301

Unbilled Unmetered Consumption
4.612

Water Losses
108.876

Apparent Losses
35.284

Unauthorized Consumption
4.612

Customer Metering Inaccuracies
26.366

Systematic Data Handling Errors
4.305

Real Losses
73.592

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
1,722.093

Non-Revenue Water (NRW)
122.789

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

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Water Audit Report for: City of Paso Robles (4010007)
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.

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

Master Meter and Supply Error Adjustments

WATER SUPPLIED

				Pcnt:	Value:	
Volume from own sources:	7	1,893.746	MG/Yr	5	57.640	MG/Yr
Water imported:	n/a		MG/Yr			MG/Yr
Water exported:	n/a		MG/Yr			MG/Yr

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

WATER SUPPLIED: 1,836.106 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	7	1,775.025	MG/Yr			
Billed unmetered:	n/a		MG/Yr			
Unbilled metered:	7	5.408	MG/Yr			
Unbilled unmetered:	5	4.590	MG/Yr		4.590	MG/Yr

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

AUTHORIZED CONSUMPTION: 1,785.023 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 51.083 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		4.590	MG/Yr	0.25%		MG/Yr

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

Customer metering inaccuracies:	5	27.113	MG/Yr	1.50%		MG/Yr
Systematic data handling errors:	5	4.438	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: 36.141 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 14.942 MG/Yr

WATER LOSSES: 51.083 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 61.081 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	185.3	miles
Number of active AND inactive service connections:	7	11,291	
Service connection density:		61	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 | 74.3 psi

COST DATA

Total annual cost of operating water system:	8	$14,130,220	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$5.26	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	7	$1,896.15	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 69 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

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User Comments

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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:	Source from water system production records. Data from manual meter readings and checked against SCADA data. DVG notes:100% production sources are metered. Accuracy testing is conducted annually. Two meters (11.8% of total) were outside of 6% accuracy (<25% required for DVG6). Not all meters can be calibrated and more than 10% of meters were outside of 6% accuracy, therefore DVG7.
Vol. from own sources: Master meter error adjustment:	Input for error adjustment was calculated as flow-weighted aggregate error using meter test data (see Vol. from own sources, above). Tank levels are monitored and reviewed daily and net change in storage is accounted for in the Master Meter & Supply Error Adjustments input.
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:	Source: Billing records summary and tracking sheet, "DWR Statistics 2018 tabulation", from water customer billing system. DVG7: All DVG6 criteria met or exceeded and the following from DVG8: 100% of customers with vol-based billng. Average and month read success rate of >95%. Also piloting and planning for AMR/AMI. Computerized meter tracking and billing systems with good meter records. Meter tracking (age and meter through-put) guides regular replacements. Auditing review of billing records takes place by utility personnel.
Billed unmetered:	Not applicable.
Unbilled metered:	Operational system flusing, and operational and maintenance activities only. Volumes used are measured (e.g. flushing, metered water trucks, process metering, etc.).
Unbilled unmetered:	CA adjusted default value, Per "Wave 2 TAP" call for City's CY2016 audit, and confirmation in 2017 validation by Certified Validator, California-specific default of 0.25% of production (Corrected amount) has been used: 1,893.746-57.64 = 1,836.11 MG * 0.0025 = 4.59027 MG. Effort has been made to track non-City firefighting uses by providing meters, however has not been effective. DVG 5 is assigned since the specified California default value was applied.

Audit Item	Comment
Unauthorized consumption:	Unauthorized consumption in 2018 included regional fire responses, where water was drawn from unmetered hydrants without City authorization, despite City providing multiple meters for hydrants for this emergency use. Other unauthorized consumption is being investigated by the City.
Customer metering inaccuracies:	For 2014, 2015, 2016, 2017, 2018 the City proactively replaced approximately 7.5%, 7.1%, 7.6%, 2.7%, and 3.4% of installed customer meters, respectively. Reliable electronic recordkeeping and policies for meters are in-place. Installed meters have less than 4,000 HCF read (no high-read meters in place). Estimated customer meter inaccuracy of 1.5% used recognizing that meters with throughput > 4,000 HCF and aged meters have been replaced with new meters, and new meter accuracy certified to +-1.5%.
Systematic data handling errors:	DVG 5 (automatic w/ default entry): Policy for new account activation and billing oversight reviewed. Computerized billing includes array of reporting features used to confirm data and zero reads and low reads reported and checked regularly. Adjustments well-understood and documented in billing system and internal checks are conducted regularly. Consumption volume variations to billing lapses is quantified and reviewed.
Length of mains:	Lengths based on GIS records and GIS-linked field validation and tracking program. Length includes mains and fire hydrant laterals as recorded in GIS. DVG 8: Policies and procedures are in place for tracking and updating new mains in electronically w/ GIS (infoMap). Previous year data included error from estimation of hydrant laterals.
Number of active AND inactive service connections:	Source: Number of connections from GIS and billing system. GIS inframap software and billing system is used to track installations and removal of meters and linking with billing system. All but one DVG 8 criteria met, .: DVG 7. Error in count of number of service connnections is believed to be no more than 3%. Field verifications take place according to several field activities (checks, low read or re-reads, changes, etc) and as part of monthly meter readings, and internal checks are made, however no randomized field auditing is in-place.
Average length of customer service line:	Meters located outside of customer bldgs at curb. DVG automatically applied.
Average operating pressure:	Source: Reported value is service-weighted average derived using average Hydraulic Grade Line for each pressure zone (confirmed w/ SCADA) and weighted for customer services within each pressure zone. Customer service elevations estimated using City's aerial survey contour elevations and lat/long coordinates for each service, from GIS data. DVG 6: All DVG 6 criteria met or exceeded. Most DVG 8 criteria met, however average pressure is estimated based on SCADA and GIS methods.
Total annual cost of operating water system:	Water System Operating from Finance Dept Report for 2018 from CAFR. Expenses include utilities billing for water, water production and distribution, water treatment & WC operations, including depreciation, and other operating expenses including NWP costs and debt service, capital equipment, and GW planning. See CAFR Water Fund Operating Expenses and Transfers Out. Note DVG 4 applied, however third-party audits car conducted annually.
Customer retail unit cost (applied to Apparent Losses):	Single volumetric rate for all customer classes of $5.26/ HCF. Amount does not include base fee of $6.25/ account/ month in effect in 2018, or sewer charges. Note that if applied to losses, only variable portion of the rate would apply, not base monthly fee.
Variable production cost (applied to Real Losses):	Water system variable production cost from water operations and rate study Oct 2015. Annual variable costs vary according to supply sources used.

AWWA Free Water Audit Software: Water Balance

WAS v5.0

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Water Audit Report for:	City of Paso Robles (4010007)	
Reporting Year:	2018	1/2018 - 12/2018
Data Validity Score:	69	

Water Exported
0.000

Billed Water Exported

Own Sources
(Adjusted for known errors)
1,836.106

Water Supplied
1,836.106

Authorized Consumption
1,785.023

Billed Authorized Consumption
1,775.025

Billed Metered Consumption (water exported is removed)
1,775.025

Billed Unmetered Consumption
0.000

Revenue Water
1,775.025

Unbilled Authorized Consumption
9.998

Unbilled Metered Consumption
5.408

Unbilled Unmetered Consumption
4.590

Non-Revenue Water (NRW)
61.081

Water Losses
51.083

Apparent Losses
36.141

Unauthorized Consumption
4.590

Customer Metering Inaccuracies
27.113

Systematic Data Handling Errors
4.438

Real Losses
14.942

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

Water Imported
0.000

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

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? Click to access definition
+ Click to add a comment

Water Audit Report for: City of Paso Robles (CA4010007)
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:	5	1,809.382	MG/Yr	5		39.117	MG/Yr
Water imported:	n/a		MG/Yr				MG/Yr
Water exported:	n/a		MG/Yr				MG/Yr
WATER SUPPLIED:		**1,770.265**	MG/Yr				

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

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	7	1,688.455	MG/Yr			
Billed unmetered:	n/a		MG/Yr			
Unbilled metered:	9	3.027	MG/Yr			
Unbilled unmetered:	5	4.426	MG/Yr		4.426	MG/Yr
AUTHORIZED CONSUMPTION:		**1,695.908**	MG/Yr			

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

WATER LOSSES (Water Supplied - Authorized Consumption)

74.357 MG/Yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		4.426 MG/Yr	0.25%		MG/Yr

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

Customer metering inaccuracies:	5	25.759	MG/Yr	1.50%	MG/Yr
Systematic data handling errors:	5	4.221	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: **34.405** MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **39.952** MG/Yr

WATER LOSSES: **74.357** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **81.810** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	185.5	miles
Number of active AND inactive service connections:	10	11,323	
Service connection density:		61	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 | 74.3 psi

COST DATA

Total annual cost of operating water system:	10	$14,812,292	$/Year
Customer retail unit cost (applied to Apparent Losses):	9	$5.73	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	7	$1,896.15	$/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: Billed metered

AWWA Free Water Audit Software:
User Comments

WAS v5.0

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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:	Source from water system production records. Data from manual meter readings and checked against SCADA data. DVG notes:100% production sources are metered. Accuracy testing is conducted annually. **6 meters (35.3% of all active sources) were outside of 6% accuracy (<25% required for DVG6), therefore DVG5.**
Vol. from own sources: Master meter error adjustment:	Input for error adjustment was calculated as flow-weighted aggregate error using meter test data (see Vol. from own sources, above). Tank levels are monitored and reviewed daily and net change in storage is accounted for in the Master Meter & Supply Error Adjustments input. All DVG 4 criteria met and DVG 6a&b met, however DVG 6c not met, therefore DVG 5 selected.
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:	Source: Billing records summary and tracking sheet, "DWR Statistics 2019 tabulation"**,** from water customer billing system. DVG7: All DVG6 criteria met or exceeded and the following from DVG8: 100% of customers with vol-based billng. Average and month read success rate of >95%. Also piloting and planning for AMR/AMI. Computerized meter tracking and billing systems with good meter records. Meter tracking (age and meter through-put) guides regular replacements. Auditing review of billing records takes place by utility personnel.
Billed unmetered:	Not applicable.
Unbilled metered:	Metered operational system flusing, operational and maintenance activities only. Volumes used are measured (e.g. flushing, metered water trucks, process metering, etc.).
Unbilled unmetered:	Caifornia adjusted default value, Per "Wave 2 TAP" call for City's CY2016 audit, and confirmation in 2017 and 2018 validation by Certified Validator, California-specific default of 0.25% of production (Corrected amount) has been used, i.e.1,809.382 - 39.117 = 1,770.265 MG * 0.0025 =4.42566 MG Effort has been made to track non-City firefighting uses by providing meters, however has been only partially effective. DVG 5 is assigned since the specified California default value was applied.

Audit Item	Comment
Unauthorized consumption:	Default value of 0.25% of production applied. Unauthorized consumption in 2019 included regional fire responses, where water is drawn from unmetered hydrants without City authorization. City has provided multiple meters for hydrants for emergency use, however these are not typically used. Other unauthorized consumption is investigated by the City. DVG 5 assumed to be used in calculations since default value is used.
Customer metering inaccuracies:	For 2014, 2015, 2016, 2017, 2018, 2019 the City proactively replaced approximately 7.5%, 7.1%, 7.6%, 2.7%, 3.4%, and 3.6% of installed customer meters, respectively. Reliable electronic recordkeeping and policies for meters are in-place. Installed meters have less than 4,000 HCF read (no high-read meters in place). Estimated customer meter inaccuracy of 1.5% used recognizing that meters with throughput > 4,000 HCF and aged meters have been replaced with new meters, and new meter accuracy certified to +-1.5%. All DVG 4 criteria met, and DVG 6a,6b,&6c criteria met, however 6d not met, therefore DVG 5.
Systematic data handling errors:	DVG 5 (automatic w/ default entry): Policy for new account activation and billing oversight reviewed. Computerized billing includes array of reporting features used to confirm data and zero reads and low reads reported and checked regularly. Adjustments well-understood and documented in billing system and internal checks are conducted regularly. Consumption volume variations to billing lapses is quantified and reviewed.
Length of mains:	Lengths based on GIS records and GIS-linked field validation and tracking program. Length includes mains and fire hydrant laterals as recorded in GIS database and inframap asset management software. DVG 8: Policies and procedures are in place for tracking and updating new mains in electronically w/ GIS (infoMap). However DVG 10 not met as randomized field verificaiton not currently conducted.
Number of active AND inactive service connections:	Source: Number of connections from GIS and billing system. GIS inframap software and billing system is used to track installations and removal of meters and linking with billing system. All but one DVG 8 criteria met, .: DVG 7. Error in count of number of service connnections is believed to be no more than 3%. Field verifications take place according to several field activities (checks, low read or re-reads, changes, etc) and as part of monthly meter readings, and internal checks are made, however no randomized field auditing is in-place.
Average length of customer service line:	Meters located outside of customer bldgs at curb/ edge of ROW. DVG automatically applied.
Average operating pressure:	Source: Reported value is service-weighted average derived using average Hydraulic Grade Line for each pressure zone (confirmed w/ SCADA) and weighted for customer services within each pressure zone. Customer service elevations estimated using City's aerial survey contour elevations and lat/long coordinates for each service, from GIS data. DVG 6: All DVG 6 criteria met or exceeded. Most DVG 8 criteria met, however average pressure is estimated based on SCADA and GIS methods.
Total annual cost of operating water system:	Water System Operating from Finance Dept Report for 2019 from CAFR. Expenses include utilities billing for water, water production and distribution, water treatment & WC operations, including depreciation, and other operating expenses including NWP costs and debt service, capital equipment, and GW planning. See CAFR Water Fund Operating Expenses. Expenses tracked in modern electronic accounting system, with third-party CPA audits conducted annually.
Customer retail unit cost (applied to Apparent Losses):	Single volumetric rate for all customer classes of $5.73/ HCF. Amount does not include base fee of $7.50/ account/ month in effect in 2019, or sewer charges. Note that if applied to losses, only variable portion of the rate would apply, not base monthly fee. Current rate structure in effect, and reviewed by professionals knowledgable in AWWA M36 with rate analyses, recently conducted with rate studies, every 5 years. DVG 9 selected, rather than 10, because this review is with rate analyses, not strictly every 5 years.
Variable production cost (applied to Real Losses):	Water system variable production cost from water operations and rate study Oct 2015. Annual variable costs vary according to supply sources used. DVG 7 selected: all DVG 6 conditions met with review by staff at least annually. DVG 8 criteria met with exception of review by AWWA M36 staff, which does not formally occur on three-year cycles.

AWWA Free Water Audit Software: Water Balance

WAS v5.0

American Water Works Association.
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Water Audit Report for:	City of Paso Robles (CA4010007)	
Reporting Year:	2019	1/2019 - 12/2019
Data Validity Score:	65	

Water Exported
0.000

Billed Water Exported

Own Sources
(Adjusted for known errors)
1,770.265

Water Supplied
1,770.265

Authorized Consumption
1,695.908

Billed Authorized Consumption
1,688.455

- **Billed Metered Consumption (water exported is removed)** *1,688.455*
- **Billed Unmetered Consumption** *0.000*

Revenue Water
1,688.455

Unbilled Authorized Consumption
7.453

- **Unbilled Metered Consumption** *3.027*
- **Unbilled Unmetered Consumption** *4.426*

Non-Revenue Water (NRW)
81.810

Water Losses
74.357

Apparent Losses
34.405

- **Unauthorized Consumption** *4.426*
- **Customer Metering Inaccuracies** *25.759*
- **Systematic Data Handling Errors** *4.221*

Real Losses
39.952

- **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*

Water Imported
0.000

Appendix C

Senate Bill X7-7 Verification Tables

Senate Bill X7-7 Compliance Tables

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**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	7,891	Acre Feet
	2008 total volume of delivered recycled water	0	Acre Feet
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1999	
	Year ending baseline period range[3]	2008	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range[4]	2007	

[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 Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.

[3] The ending year must be between December 31, 2004 and December 31, 2010.

[4] 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	1999	23,565
Year 2	2000	24,297
Year 3	2001	24,978
Year 4	2002	25,725
Year 5	2003	26,713
Year 6	2004	27,139
Year 7	2005	27,863
Year 8	2006	28,783
Year 9	2007	29,391
Year 10	2008	29,602
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2003	26,713
Year 2	2004	27,139
Year 3	2005	27,863
Year 4	2006	28,783
Year 5	2007	29,391
2015 Compliance Year Population		
2015		30,522
NOTES:		

SB X7-7 Table 4: Annual Gross Water Use *								
Baseline Year *Fm SB X7-7 Table 3*		**Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**Deductions**					**Annual 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.*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1999	6,147			-		-	6,147
Year 2	2000	6,449			-		-	6,449
Year 3	2001	6,719			-		-	6,719
Year 4	2002	7,337			-		-	7,337
Year 5	2003	7,470			-		-	7,470
Year 6	2004	7,462			-		-	7,462
Year 7	2005	7,414			-		-	7,414
Year 8	2006	7,431			-		-	7,431
Year 9	2007	8,126			-		-	8,126
Year 10	2008	7,891			-		-	7,891
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**7,245**
5 Year Baseline - Gross Water Use								
Year 1	2003	7,470			-		-	7,470
Year 2	2004	7,462			-		-	7,462
Year 3	2005	7,414			-		-	7,414
Year 4	2006	7,431			-		-	7,431
Year 5	2007	8,126			-		-	8,126
5 year baseline average gross water use								**7,581**
2015 Compliance Year - Gross Water Use								
2015		5,153	-		-		-	**5,153**

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

NOTES:

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	1999	2,355	0	2,355
Year 2	2000	2,797	0	2,797
Year 3	2001	3,132	0	3,132
Year 4	2002	3,789	0	3,789
Year 5	2003	3,742	0	3,742
Year 6	2004	3,138	0	3,138
Year 7	2005	2,856	0	2,856
Year 8	2006	3,366	0	3,366
Year 9	2007	4,103	0	4,103
Year 10	2008	3,819	0	3,819
5 Year Baseline - Water into Distribution System				
Year 1	2003	3,742	0	3,742
Year 2	2004	3,138	0	3,138
Year 3	2005	2,856	0	2,856
Year 4	2006	3,366	0	3,366
Year 5	2007	4,103	0	4,103
2015 Compliance Year - Water into Distribution System				
2015		2,045	0	2,045

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)				
Name of Source	Surface Water			
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	1999	3,792	0	3,792
Year 2	2000	3,652	0	3,652
Year 3	2001	3,587	0	3,587
Year 4	2002	3,548	0	3,548
Year 5	2003	3,728	0	3,728
Year 6	2004	4,324	0	4,324
Year 7	2005	4,558	0	4,558
Year 8	2006	4,065	0	4,065
Year 9	2007	4,023	0	4,023
Year 10	2008	4,072	0	4,072
5 Year Baseline - Water into Distribution System				
Year 1	2003	3,728	0	3,728
Year 2	2004	4,324	0	4,324
Year 3	2005	4,558	0	4,558
Year 4	2006	4,065	0	4,065
Year 5	2007	4,023	0	4,023
2015 Compliance Year - Water into Distribution System				
2015		3,021	0	3,021
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)				
Name of Source	Nacimiento Project Water			
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	1999	0		0
Year 2	2000	0		0
Year 3	2001	0		0
Year 4	2002	0		0
Year 5	2003	0		0
Year 6	2004	0		0
Year 7	2005	0		0
Year 8	2006	0		0
Year 9	2007	0		0
Year 10	2008	0		0
5 Year Baseline - Water into Distribution System				
Year 1	2003	0		0
Year 2	2004	0		0
Year 3	2005	0		0
Year 4	2006	0		0
Year 5	2007	0		0
2015 Compliance Year - Water into Distribution System				
2015		87		87
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

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	1999	23,565	6,147	233
Year 2	2000	24,297	6,449	237
Year 3	2001	24,978	6,719	240
Year 4	2002	25,725	7,337	255
Year 5	2003	26,713	7,470	250
Year 6	2004	27,139	7,462	245
Year 7	2005	27,863	7,414	238
Year 8	2006	28,783	7,431	230
Year 9	2007	29,391	8,126	247
Year 10	2008	29,602	7,891	238
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**241**
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	2003	26,713	7,470	250
Year 2	2004	27,139	7,462	245
Year 3	2005	27,863	7,414	238
Year 4	2006	28,783	7,431	230
Year 5	2007	29,391	8,126	247
5 Year Average Baseline GPCD				**242**
2015 Compliance Year GPCD				
2015		30,522	5,153	**151**
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	241
5 Year Baseline GPCD	242
2015 Compliance Year GPCD	151
NOTES:	

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
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
241	**193**
NOTES:	

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[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
242	230	193	**193**

[1] Maximum 2020 Target is 95% of the 5 Year Baseline GPCD *[2] 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.*

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
193	241	**217**
NOTES:		

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)* Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
		Extraordinary Events	Weather Normalization	Economic Adjustment				
151	217	*0*	*0*	*0*	0	151	151	**YES**
NOTES:								

SB X7-7 Table 0: Units of Measure Used in 2020 UWMP* *(select one from the drop down list)*
Acre Feet
**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	31,221
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.*	
	5,745			-		-	**5,745**

*** 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 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Groundwater
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
	954	-	954

[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

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	Surface Water - Salinas River
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
	3,609		3,609

[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: Salinas River water through River Wells

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	Nacimiento Water Project Water-from water treatment plant
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
	968		968

[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:

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	Nacimiento Water Project Water-from Recovery Well
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
	214		214

[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:

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**
5,745	31,221	**164**
NOTES:		

SB X7-7 Table 9: 2020 Compliance

Actual 2020 GPCD[1]	Optional Adjustments to 2020 GPCD (Enter "0" if Adjustment Not Used)			TOTAL Adjustments[1]	Adjusted 2020 GPCD [1] *(Adjusted if applicable)*	2020 Confirmed Target GPCD [1, 2]	**Did Supplier Achieve Targeted Reduction for 2020?**
	Extraordinary Events[1]	Weather Normalization[1]	Economic Adjustment[1]				
164	-	-	-	-	164	193	**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 D

Water Shortage Contingency Plan

City of El Paso de Robles

Water Shortage Contingency Plan

Final

July 2021

TODD GROUNDWATER

2490 Mariner Square Loop, Suite 215
Alameda, CA 94501
510.747.6920
www.toddgroundwater.com

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Appendices

1. WATER SHORTAGE CONTINGENCY PLAN

The City has updated its Water Shortage Contingency Plan (WSCP) in response to new legislation in 2018. The WSCP prevents waste and unreasonable use of water to ensure that water will be used in a reasonable and beneficial manner, summarizes actions that the City can take during water shortages to increase water conservation throughout the community, and improves the City's readiness to address supply shortages through various levels of water management actions to conserve water.

Previously, the City's WSCP was part of its municipal code (*Chapter 14.02, Water Conservation and Water Shortage Contingency Plan*). To comply with State requirements, the City's updated WSCP is now a stand-alone document, and the City will also update sections of the municipal code to reflect changes to the WSCP. The updated municipal code sections are included in this document in Sections 1.5.1, 1.6, and 1.7 and are clearly marked as such.

As required by the new legislation, the City's WSCP was updated to include response actions that align with six standard water shortage levels based on water supply conditions, as well as shortages resulting from catastrophic supply interruptions. The new legislation also requires that the WSCP include procedures for conducting an Annual Water Supply and Demand Assessment (Annual Assessment) that is to be submitted to DWR by July 1 of each year starting in 2022.

1.1. WSCP PROCESS AND CONTENT

To determine the status of the City's water supply, an analysis of the reliability of the supply is conducted at least annually and the supply conditions are compared to anticipated demands. This process, described in Section 1.2 (Water Supply Reliability) and Section 1.3 (Annual Water Supply and Demand Assessment), will indicate if there is potential for a supply shortage. If a supply shortage is indicated, the next step is to identify which water shortage level is most applicable to the potential shortage. Six shortage level are described in Section 1.4 and the response actions for each shortage level are discussed in Section 1.5.

Communication protocols for the declaration of a potential water shortage are described in Section 1.6, while Sections 1.7 and 1.8 discuss compliance and enforcement and legal authority for the identified shortage response actions. Potential financial impacts and associated mitigations of enactment of the WSCP are discussed in Section 1.9.

Procedures for monitoring and reporting and WSCP refinement are included in Sections 1.10 and 1.11. Section 1.12 includes the WSCP requirement to address special water features. Finally, WSCP adoption, submittal and availability are summarized in Section 1.13.

1.2. WATER SUPPLY RELIABILITY

Water supply reliability analysis conducted by the City (see Section 7.1 of the City's UWMP) identified constraints on water supply sources and evaluated each source's availability during a normal year, a single dry year, and a 5-year drought period.

These analyses showed that supply resources are sufficient to meet demands on an annual basis during times of shortages, but short-term shortages could result from catastrophic occurrences such as the loss of power or the complete loss of multiple supply sources.

Drought is the primary event that has high probability for causing such shortage condition. A Drought Risk Assessment (see Section 7.2 of the City's 2020 UWMP) assessed the City's ability to supply water to meet demands during a five-consecutive-year drought assuming it occurs in the next five years. The DRA is based on supply conditions during five dry consecutive years taking into account other considerations such as climate change, regulations, and other factors. The DRA determined that the City is capable of providing adequate supplies if a five-year drought occurred during the next five year.

1.3. ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Beginning in 2022, the City must prepare an Annual Assessment and submit an Annual Water Shortage Assessment Report to DWR by July 1 of each year.

The Annual Assessment will include documentation of the projected supply and demand for the upcoming year and determination that supply will be sufficient, even during a dry year. The Annual Assessment is a near-term forecast of water supply conditions (next 12 months) to determine if shortage response actions should be declared. One of the purposes of this Annual Assessment is to enact response actions in time for supplies and use to be adjusted to lessen the shortage impact. A separate analysis, called a Drought Risk Assessment (DRA), has been conducted by the City with a multiyear, longer-term focus. This is described in Section 7.2 of the City's 2020 UWMP.

DWR is developing a guidance document with recommended procedures and methods that could be used to conduct the Annual Assessment and comply with the requirements for reporting. However, the WSCP included in the City's 2020 UWMP is to contain specific procedures the City plans to use to complete the Annual Assessments. These are discussed below.

1.3.1. Decision Making Process

The City manages use of three primary water sources conjunctively – groundwater, Salinas River water, and NWP water. The City maximizes its use of Salinas River water and supplements that with NWP water and groundwater. The City releases NWP water to the Salinas River channel for recovery with the NWP recovery well, to support river well production, and to benefit groundwater. In addition, the City will soon supply recycled water to customers inside and beyond City boundaries.

Monitoring of hydrologic conditions such as rainfall, Salinas River flows and groundwater levels are key components of determination of available water supply. The City conducts annual or more frequent evaluations of supply availability which include review of:

- Rainfall records, including patterns and projections.
- Salinas River streamflow, including County releases from the Salinas Reservoir.

- NWP water delivery projections.
- Groundwater elevation trends.

Rainfall is measured at the Paso Robles Station (#046730) and long-term average precipitation is approximately 14.61 inches per year. Surface water flow into the Atascadero Area Subbasin from the Salinas River and its tributaries averaged 5,600 AFY, with a minimum flow around 1,300 AFY and a maximum flow around 9,000 AFY during the 2012 to 2016 period (GEI, 2021). Salinas River flow is measured at several gages including USGS gage #11147500 Salinas River at Paso Robles. The City generally measures groundwater elevations in its wells at least twice per year. Annual Reports for the Paso Robles Area Subbasin GSP and the Atascadero Area Subbasin GSP are due by April 1 of each year and will include analyses of recent groundwater conditions (including groundwater elevations and extractions) as well as surface water supply and use, total water use, and change in groundwater storage. This information will also be used to inform the City of water supply availability.

The information above will be reviewed by City staff and incorporated into the Annual Assessment. If potential supply shortage is anticipated, the Annual Assessment will be presented to the City Council along with recommendations for specific shortage response actions, if needed, at one of its May or June meetings. The City Council will discuss and vote on the approval of the Annual Assessment and any triggered shortage response actions. This process is summarized below.

In the Spring (February-May), City staff (under the direction of the Water Resources Manager) will review available water supply and hydrologic data and:

- Evaluate available supply for current year
- Assess infrastructure constraints
- Predict anticipated demands
- Project the supply and demand for the current year
- Project estimated supply and demand for a dry year
- Determine if and when supply shortages will occur and appropriate actions
- Prepare draft Annual Assessment Report.

In May or June, the Water Resources Manager and Public Works Director will:

- Provide Draft Annual Assessment Report to City Council along with recommendations for any shortage response actions[1]
- If shortages are determined, implement the WSCP actions as directed by the City Council
- Submit Annual Assessment Report to DWR/State by July 1.

[1] Preliminary conclusions of the above analyses can be presented to the City Council before May for a declaration of a water shortage if a shortage condition appears to be imminent and immediate enactment of the WSCP is warranted.

1.3.2. Data and Methodologies

A description is required of the data and methodologies used to evaluate water service reliability for the current year and one dry year. The following information provides a general basis for key data inputs and methodologies used for the Annual Assessments.

Evaluation Criteria

The Annual Assessment will be based on locally applicable evaluation criteria. These include evaluation of available water supplies, water demand, and infrastructure considerations for the current year and a dry year. A comparison of supply and demand will determine if anticipated supply can meet unconstrained demands. If a shortage results, the shortage level percentage will be determined by dividing the shortfall (difference between supplies and demand) by total demand. This process will be conducted for anticipated current year conditions and for projected dry year conditions.

Water Supply

The amount of water projected to be available from each of the City's sources of supply (groundwater, Salinas River water, NWP water, and recycled water) will be evaluated and summarized in the Annual Assessment for the anticipated current year and for a projected dry year. The 2020 UWMP (Section 6, Water Supplies) contains detailed information on the City's water supplies. This information is summarized below.

Nacimiento Water Project (NWP) Water. The City of Paso Robles holds a 6,488 AFY delivery entitlement for Lake Nacimiento water with the San Luis Obispo County Flood Control and Water Conservation District (SLOFC&WCD or District). In 1959, SLOFC&WCD signed an agreement with what is now Monterey County Water Resources Agency. The agreement entitles the District to no less than 17,500 AFY from Lake Nacimiento for uses in San Luis Obispo County. Of this amount, 1,750 AFY is set aside for lakeside uses. The NWP, completed in 2010, consists of approximately 45 miles of pipeline to deliver untreated water from Lake Nacimiento to communities in San Luis Obispo County. In order to directly use its NWP supply, the City constructed a 2.4 million gallon per day (mgd) surface water treatment plant which became fully operational in 2016. Between 2015 and 2020, the City's use of NWP water for treatment and direct delivery has ranged from 87 AF in 2015 to 1,763 AF in 2016.

In addition to direct deliveries, NWP water also can be utilized by the City through a recovery well. This operation allows NWP water to be turned into the Salinas River channel and captured through the recovery well (as distinct from River water which the City produces pursuant to its water rights Permit issued by the State Board). The recovery well typically operates at a rate of 400 gallons per minute (gpm) for about five months out of the year. Between 2015 and 2020, a total of 4,995 AF of NWP water has been turned-out to the river.

Salinas River Water. The City currently pumps Salinas River water from river wells pursuant to appropriative surface water rights and a permit issued by the State Water Resources Control Board. The City's Permit number 5956, as amended on November 6, 1981, allows

the City to take up to eight cubic feet per second (3,590 gpm) with a maximum diversion of 4,600 AFY (January 1 to December 31). The permit designates a moveable point of diversion within a specific reach of the Salinas River.

The City has seven river wells, with one of these also acting as a Nacimiento water recovery well. Approximately 60 percent of the City's current water supply (2015-2020) comes from its shallow Salinas River wells in the Atascadero Area Subbasin. Annual pumping totals for the City's river wells between 2015 and 2020 have ranged between 2,448 AF (2016) to 3,823 AF (2020).

Groundwater. Groundwater has been and will continue to be an important component of the City's water supply. The City operates deep wells that pump percolating groundwater from the Paso Robles Area Subbasin (DWR Basin No. 3-004.06). In recent years, basin wells have provided as much as 4,103 AF (2007), and between 2015 and 2020, the City has pumped between 656 AFY (2018) and 2,045 AFY (2015) from its wells in the Paso Robles Area Subbasin.

The City also has shallow river wells in the Atascadero Area Subbasin (DWR Basin No. 3-004.11), which was subdivided from the Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin.

Recycled Water. The City's Wastewater Treatment Plant (WWTP) is producing tertiary quality recycled water that will be distributed via the recycled water distribution system when completed in the future. The recycled water distribution system will deliver recycled water to the east side of the City for golf course, park, and vineyard irrigation. Surplus water will be discharged to Huerhuero Creek to benefit the groundwater basin. Recycled water is anticipated to offset potable water use by increasing amounts of 180 AFY (2030) to 450 AFY (2050) and could provide thousands of acre-feet more for additional irrigation and discharge. Its use is dependent upon securing customer commitments to use recycled water and conveyance to recycled water use sites.

Current Year Unconstrained Customer Demand

Estimation of unconstrained demands will be based on 1) information and the methodology presented in Section 4 (System Water Use) of the 2020 UWMP and 2) annual Public Water System Statistics data submitted to DWR which present demand by water use sector for each year. It will include review of new connections and any potential changes in patterns of water use from the previous years. Demands may also be adjusted to account for other conditions such as weather and current requirements for landscape irrigation.

Current Year and Dry Year Available Supply

Water supply projected to be available for the current year and supply projected to be available for a dry year will be estimated based on review of the information listed in Section 1.3.1 and consideration of the reliability of each supply source. Information on water supply in Section 6 (Water Supplies) and Section 7 (Water Supply Reliability and Drought Risk Assessment) of the City's 2020 UMWP will also be considered when estimating current year available supply and projected dry year supply. The City will look at past

representative years, including a recent dry year, along with other influencing factors that may change from year to year to determine these amounts. The dry year conditions for each supply may be evaluated for different representative dry years.

Infrastructure Considerations

Infrastructure considerations will also be incorporated into the Annual Assessment for the current year and a dry year. These could include interruption of flow from the NWP pipeline for maintenance purposes or other outages, treatment plant disruptions, or the loss of one or more wells.

Other Factors

Other factors may also be considered in the Annual Assessment. These could include interruptions of supplies such as water quality issues or environmental issues that temporarily limit supplies, an earthquake, or extended power outage.

1.4. SHORTAGE LEVELS

Declaration of a water shortage is dependent upon many factors because the City has a portfolio of available water supplies. Consistent with new requirements for Water Shortage Contingency Plans, six water shortage levels have been established corresponding to shortages of up to 10, 20, 30, 40, 50, and greater than 50 percent (**Table 1**). The four levels identified in the City's previous WSCP were reorganized into the six levels shown in **Table 1**. The shortage levels represent increasing deficiency in supplies projected to be available relative to anticipated water use.

The Annual Assessment results will indicate if there is a potential for a shortfall of supplies. If a shortage is likely, the shortage level percentage will be determined by dividing the shortfall (difference between supplies and demand) by total demand.

Table 1 shows the corresponding requirements for conservation or mandatory use reductions for each designated shortage level. The City Council is authorized to declare the appropriate water shortage condition. Measures corresponding to Shortage Level 1 are voluntary while measures identified for Levels 2 through 6 are mandatory and violators are subject to civil and administrative penalties and remedies.

1.5. SHORTAGE RESPONSE ACTIONS

When the City determines there is a reasonable probability, due to a projected imbalance in available water supply and projected peak demand, that there will be a supply shortage and that a consumer demand reduction of fifty percent or more is required in order to ensure that sufficient supplies will be available to meet anticipated demands, the City will declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1 of the California Water Code. The City will coordinate with San Luis Obispo County for the possible proclamation of a local emergency in accordance with California Government Code, California Emergency Services Act (Article 2, Section 8558). The County

contact is San Luis Obispo County Public Works Department (publicworks@co.slo.ca.us). Coordination protocols in the City's Multi-Hazard Emergency Response Plan (ERP) (Paso Robles, 2019a) will be followed (see Section 1.5.3 and **Appendix A**).

Table 1. Water Shortage Contingency Plan Shortage Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions
1	Up to 10%	Voluntary. Any short-term supply reduction. Anticipated beginning of drought. Production within 10% of peak hour demands or supply totals are reduced by 10%. Response: reduce demands by up to 10% (see Table 2).
2	Up to 20%	Mandatory. Moderate supply reductions, including but not limited to short term supply limitations (i.e., droughts, infrastructure issues, etc.). Production is 10% to 20% less than peak hour demands, or total supplies are reduced by 20%. Response: reduce demands by up to 20% (see Table 2).
3	Up to 30%	Mandatory. Moderate to severe supply reductions, including but not limited to moderate supply shortages (i.e., prolonged droughts). Production is 20% to 30% less than peak hour demands, or total supplies are reduced by 30%. Response: reduce demands by up to 30% (see Table 2).
4	Up to 40%	Mandatory. Severe water supply reductions, including but not limited to supply disruption (i.e., water quality issues or natural disasters) or prolonged droughts. Production is 30% to 40% less than peak hour demands, or total supplies are reduced by 40%. Response: reduce demands by up to 40% (see Table 2).
5	Up to 50%	Mandatory. Critical water supply reductions, including but not limited to supply disruption or prolonged drought. Production is 40% to 50% less than peak hour demands, or total supplies are reduced by 50%. Response: reduce demands by up to 50% (see Table 2).
6	>50%	Mandatory. Emergency water supply reductions, including but not limited to supply disruption or prolonged droughts. Production is over 50% less than peak hour demands, or total supplies are reduced by over 50%. Response: reduction in demands by over 50% (see Table 2).

Table 2. Demand Reduction Actions

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?	Additional Explanation or Reference	Penalty, Charge, or Other
In effect at all times	Landscape - Restrict or prohibit runoff from landscape irrigation	Already in effect	-	Yes
In effect at all times	Landscape - Limit landscape irrigation to specific times	Already in effect	Prohibit watering during and within 48 hours following measurable	Yes
In effect at all times	CII - Lodging establishment must offer opt out of linen service	Already in effect	-	Yes
In effect at all times	CII - Commercial kitchens required to use pre-rinse spray valves	Already in effect	For new or remodeled	Yes
In effect at all times	CII - Restaurants may only serve water upon request	Already in effect	-	Yes
In effect at all times	Other water feature or swimming pool restriction	Already in effect	No overfilling swimming pools and spas	Yes
In effect at all times	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Already in effect	Within 7 days	Yes
In effect at all times	Water Features - Restrict water use for decorative water features, such as fountains	Already in effect	Water fountain or other decorative water feature must use re-circulated water	Yes
1	Expand Public Information Campaign	Estimated at 2%		No
1	Other - Prohibit use of potable water for construction and dust control	Estimated at 2%	-	No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Estimated at 2%	Within 5 days	No
2	Landscape - Limit landscape irrigation to specific days	Estimated at 10%	2 days per week	Yes
2	Other	Unknown	City may suspend new hydrant meters	No
2	Other	Estimated at 4%	City may implement water allocations per customer account	Yes

Table 2 (Continued)

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?	Additional Explanation or Reference	Penalty, Charge, or Other
3	Other	Estimated at 2%	Filling of ornamental lakes and ponds is generally prohibited	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	Estimated at 2%	-	Yes
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Estimated at 2%	Within 2 days (3 days for rental properties)	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Estimated at 2%	-	Yes
3	Other - Prohibit use of potable water for washing hard surfaces	Estimated at 2%	-	Yes
3	Other	Unknown	Possible limitations on new water services and	No
4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Estimated at 2%	Within 1 day (3 days for rental properties)	Yes
4	Other water feature or swimming pool restriction	Estimated at 5%	Prohibit filling of pools and spas	Yes
4	Decrease line flushing	Estimated at 2%	-	No
5	Landscape - Prohibit all landscape irrigation	Estimated at 10%	-	Yes
5	Moratorium or Net Zero Demand Increase on New Connections	Unknown	Net zero demand increase on new connections	No
5	Expand Public Information Campaign	Included in others	-	No
6	Other	Unknown	No new agreements to provide water	No
6	Increase Water Waste Patrols	Estimated at 2%	-	No

During a declared water shortage, all water customers shall comply with all water conditions of the previous levels.

1.5.1. Demand Reduction

The WSCP contains mechanisms to ensure that the City can provide adequate water supplies during times of shortages, and to ensure the City is able to maintain and provide a minimum supply of water for public health, safety, and welfare.

The City's responses to a water shortage require specific action by the City Council. Stages of action for many water agencies are defined by available storage in a surface water reservoir or by the annual allotment provided by a water wholesaler. In contrast, the City overlies vast groundwater storage that can be utilized by the City for its drought or emergency supply. The City's response to shortage will depend on the magnitude of the projected shortfall in supply and/or other needs for conservation. Once a water shortage level has been declared, measures will need to be implemented to meet water conservation goals.

Table 2 lists demand reduction actions to take during various shortage levels. The table includes estimates of how much the action is anticipated to reduce the shortage gap and if there would be any penalty or enforcement associated with each action. As indicated in **Table 2**, the actions at each level are responsive to and sufficient for the corresponding shortage gaps.

Chapter 14.02 of the City's municipal code is being updated to include six levels of shortages. The previous Level 4 response actions have been allocated to the new Levels 4, 5, and 6. The updated code follows.

Chapter 14.02 WATER CONSERVATION AND WATER SHORTAGE CONTINGENCY PLAN

14.02.010 Declaration of necessity and intent.

A. This chapter establishes certain mandatory and permanent water management requirements necessary to conserve water, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, prevent unreasonable use of water, prevent unreasonable methods of use of water within the City of El Paso de Robles service area in order to assure adequate supplies of water to meet the needs of the public, and further the public health, safety, and welfare, recognizing that water is a scarce natural resource that requires careful management not only in times of drought, but at all times.

B. This chapter also establishes regulations to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes four levels of actions to be implemented in times of shortage, with increasing restrictions on water use in response decreasing water supply or production capabilities.

C. Level 1 water supply shortage measures are voluntary and will be reinforced through local and regional public education and awareness measures. Levels 2 through 4 water supply shortage conditions mandate increasingly restrictive measures in order to attain escalating conservation goals. Those city water customers who violate the measures imposed under a condition of Level 2 through Level 4 are subject to criminal, civil, and administrative penalties and remedies as provided in Chapter 1 of this Code.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009)

14.02.020 Application.

A. This chapter applies to all customers in the use of any water provided by the city, including customers located within or outside the city, and to all private well owners and operators within the city limits.

B. This chapter is intended solely to further the conservation of water. It is not intended to implement or replace any provision of federal, state, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff.

C. The provisions of this chapter do not apply to uses of water necessary to protect public health and safety or for essential government services, such as police, fire and other similar emergency services.

D. Nothing in this Chapter 14.02 is intended to affect or limit the ability of the city manager or designee to declare and respond to an unforeseeable disaster or water emergency such as an earthquake, or other major disruption in the water supply, pursuant to the general laws of the city or other provisions of this Code.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009; Ord. No. 1021 N.S. § 1, 1-5-2016)

14.02.030 Definitions.

The following words and phrases whenever used in this Chapter 14.02 will have the meaning defined in this section:

A. Customer means any person, corporation, public or private entity, public or private association, public or private agency, government agency or institution, school district, college, university, or any other user of water provided by the City of El Paso de Robles.

B. Days are defined as calendar days, unless otherwise indicated.

C. Water Conservation means the efficient management of water resources for beneficial uses, preventing waste, or accomplishing additional benefits with the same amount of water.

D. Condition means a declared water supply shortage condition, which may be at Level 1, Level 2, Level 3 or Level 4, as described in this Chapter 14.02.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009)

14.02.040 Mandatory minimum water conservation requirements—Prohibition against waste.

The following water conservation requirements shall be in effect at all times and are permanent. Violations will be considered waste and an unreasonable use of water and are subject to penalties.

A. No Excessive Water Flow or Runoff: Watering or irrigating of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter or ditch is prohibited.

B. No Overfilling of Swimming Pools and Spas: Overfilling of a swimming pools and spas such that overflow water is discharged onto an adjoining sidewalk, driveway, street, alley, gutter or ditch is prohibited.

C. No Washing Down Hard or Paved Surfaces: Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited 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.

    2. When a low-volume, high-pressure cleaning machine or a low-volume high-pressure water broom is used.

    3. All wash-down activities must comply with all state or local regulations pertaining to discharges to the city's storm drain system.

D. Obligation to Fix Leaks, Breaks or Malfunctions: Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the customers' plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected and in no event more than seven days after written notification by the City of El Paso de Robles, is prohibited.

E. Re-Circulating Water Required for Water Fountains and Decorative Water Features: Operating a water fountain or other decorative water feature that does not use re-circulated water is prohibited.

F. Limits on Washing Vehicles: Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility.

G. Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services: Hotels, motels and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood language.

H. No Installation of Single Pass Cooling Systems: Installation of single pass cooling systems is prohibited in buildings requesting new water service.

I. No Installation of Non-Recirculating Systems in Commercial Car Wash and Laundry Systems: Installation of non-recirculating water systems is prohibited in new commercial conveyor car wash and new commercial laundry systems.

J. New or Remodeled Restaurants Required to Use Water Conserving Dish Wash Spray Valves: All new or remodeled food preparation establishments, such as restaurants or cafes, are prohibited from using non-water conserving dish wash spray valves.

K. Water Served Only Upon Request: Restaurants and other food establishments will only serve water upon request.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009)

14.02.050 Level 1 water supply shortage—Voluntary reductions.

A. The city council or, in the event prompt action is necessary, the city manager, may declare a Level 1 water supply shortage condition (a "Level 1 Condition") when there is a reasonable probability, due to a projected imbalance in available water supply and projected peak demand, that there will be a supply shortage and that a consumer demand reduction of up to ten percent is needed in order to ensure that sufficient supplies will be available to meet anticipated demands. Upon such declaration, the city manager or designee shall take the necessary actions to implement the voluntary Level 1 condition conservation practices identified in this chapter. In the event a Level 1 condition has been declared by the city manager, the city council shall consider the ratification of such declaration at its next regularly scheduled meeting or at a special meeting called for such purpose.

B. During the period of a declared Level 1 condition, the City of El Paso de Robles will increase its public education and outreach efforts to increase public awareness of the need to implement the following water conservation practices.

    1. Irrigation of residential and commercial landscapes, including golf courses, parks, school grounds and recreation fields, before 9:00 a.m. and after 7:00 p.m. except for renovation or repair of the irrigation system with an operator present.

    2. Repair or prevention of all water leaks upon discovery or within five days of notification by the City of El Paso de Robles.

    3. Use of recycled, non-potable, or water imported from outside city limits for construction purposes.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009)

14.02.060 Level 2 water supply shortage—Mandatory moderate reductions.

A. The city council, or in the event prompt action is necessary, the city manager, may recommend and declare a Level 2 water supply shortage condition (a "Level 2 Condition") when there is a reasonable probability, due to a projected imbalance in available water supply and projected peak demand, that there will be a supply shortage and that a consumer demand reduction of up to twenty percent is required in order to ensure that sufficient supplies will be available to meet anticipated demands. Upon the declaration of a Level 2 condition, the city manager or designee shall take the necessary actions to notify the public and implement the mandatory Level 2 condition conservation practices identified in this chapter. In the event a Level 2 condition has

been declared by the city manager, the city council shall consider the ratification of such declaration at its next regularly scheduled meeting or at a special meeting called for such purpose.

B. During the period of a declared Level 2 condition, all water customers shall be required to comply with all Level 1 condition measures, set forth in Section 14.020.050, and also shall comply with the following conservation measure:

1. The city shall establish and post a schedule for the months in which all landscape irrigation shall be limited to no more than three assigned days per week. Such schedule shall also specify any limited exceptions to such restrictions.

2. Watering of landscaping shall be prohibited during and within forty-eight hours of rainfall.

3. All irrigation of ornamental turf in public street medians shall be prohibited.

C. At its discretion, the city may suspend the issuance of new hydrant meters and/or recall all outstanding meters in accordance with the city's existing hydrant meter rental agreement.

D. The city manager may recommend and, upon resolution of the city council, implement a water allocation per customer account served by the City of El Paso de Robles, and a schedule of per unit penalties for use exceeding the water allocation. If the city council adopts or modifies water allocations, the city manager will post notice of the water allocation prior to the effective date(s). Following the effective date(s) of the water allocation as established by the city council, any customer that uses water in excess of the allocation will be subject to a penalty for each billing unit of water in excess of the allocation. The per unit penalty for excess water usage will be in addition to any other remedy, penalty, or fine that may be imposed for violation of this chapter. At the city's discretion, the water conservation measures required under Level 1 and Level 2 conditions may be suspended during the period a water allocation is in effect.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009; Ord. No. 09-962 N.S., § 1, 10-20-2009; Ord. No. 1014 N.S., § 2, 5-5-2015; Ord. No. 1032 N.S., § 1, 7-19-2016)

14.02.070 Level 3 water supply shortage— Mandatory moderate to severe condition.

A. The city council or, in the event prompt action is necessary, the city manager, may recommend and declare a Level 3 water supply shortage condition (a "Level 3 Condition") when there is a reasonable probability, due to a projected imbalance in available water supply and projected peak demand, that there will be a supply shortage and that a consumer demand reduction of up to thirty percent is required in order to ensure that sufficient supplies will be available to meet anticipated demands. Upon declaration of Level 3 water supply shortfall, the city manager or designee shall take the necessary actions to implement the mandatory Level 3 condition conservation practices identified in this chapter. In the event a Level 3 condition has been declared by the city manager, the city council shall consider the ratification of such declaration at its next regularly scheduled meeting or at a special meeting called for such purpose.

B. During the period of a declared Level 3 condition, all water customers shall comply with all Level 1 condition and Level 2 condition water conservation measures and shall also comply with the following additional mandatory conservation measures:

1. All landscape irrigation shall be limited to no more than two assigned days per week on a schedule established and posted by the city manager or designee.

2. Filling or re-filling of ornamental lakes or ponds is prohibited except to the extent needed to sustain plants or animals that have been actively managed within the water feature prior to the declaration of a Level 3 condition.

3. All water leaks, breaks or other plumbing malfunctions shall be repaired upon discovery or within forty-eight hours of notification by the City of El Paso de Robles, with the exception of rental properties, which shall have up to seventy-two hours to repair interior unit leaks, in order to comply with state laws regarding the provision of notice to tenants.

4. Using water to wash vehicles, whether motorized or not, is prohibited except at commercial car washing facilities.

5. Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except under the following conditions:

   a. 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, a low-volume, high-pressure cleaning machine or a low-volume high-pressure water broom.

C. Upon the declaration of a Level 3 condition, new potable water services, temporary or permanent water meters, and statements of immediate ability to serve or provide potable water service (including, but not limited to, will serve letters, certificates, or letters of availability) will be allowed only under the circumstances listed below. This provision does not preclude the resetting or turn-on of meters to provide continuation of water service or to restore service that has been interrupted.

1. A valid building permit has been issued for the project; or

2. The project is necessary to protect the public's health, safety, and welfare; or

3. The applicant provides substantial evidence satisfactory to the city manager or designee of an enforceable commitment that the new water demands for the project will be offset prior to the provision of new water meter(s). The applicant's offset program must be approved by the city's water manager. Such offsets may be in the form of additional water conservation measures, the provision of recycled water use in place of existing potable water demands (if available), or other such offsets developed and approved by the city manager or designee. To obtain approval, the applicant's plan must demonstrate that the development will not increase the demand on the city's water system.

During the period of a Level 3 condition, the expiration dates of approved tentative maps and related entitlements for such development projects shall be tolled until such time as the Level III condition has improved to a Level II condition or better. Notwithstanding the foregoing, an applicant with an approved tentative map and related entitlements may choose to proceed with development under the conditions set forth in subsection c.3., above.

D. Upon the declaration of a Level 3 condition, the city will suspend consideration of any annexation to its service area. This subsection does not apply to boundary corrections and annexations that will not result in any increased use of water.

E. At its discretion, the city may suspend the issuance of new hydrant meters and/or recall all outstanding meters in accordance with the city's existing hydrant meter rental agreement.

F. The city manager may recommend and, upon resolution of the city council, implement a water allocation per customer account served by the City of El Paso de Robles, and a schedule of penalty surcharges for exceeding the water allocation. If the city council adopts or modifies water allocations, the city manager will post notice of the water allocation prior to the effective date(s). Following the effective date(s) of the water allocation as established by the city council, any customer that uses water in excess of the allocation will be subject to a penalty surcharge for each billing unit of water in excess of the allocation. The penalty surcharge for excess water usage will be in addition to any other remedy, penalty, or fine that may be imposed for violation of this chapter. At the city's discretion, the water conservation measures required under Level 1, Level 2, and Level 3 conditions may be suspended during the period a water allocation is in effect.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009)

14.02.080 Level 4 water supply shortage— Mandatory severe condition.

A. The city council or, in the event prompt action is necessary, the city manager may recommend and declare a Level 4 water supply shortage condition (a Level 4 Condition") when there is a reasonable probability, due to a projected imbalance in available water supply and projected peak demand, that there will be a supply shortage and that a consumer demand reduction of up to forty percent is required in order to ensure that sufficient supplies will be available to meet anticipated demands. Upon declaration of Level 4 condition, the city manager or designee shall take the necessary actions to implement the mandatory Level 4 conservation practices identified in this chapter. In the event a Level 4 condition has been declared by the city manager, the city council shall consider the ratification of such declaration at its next regularly scheduled meeting or at a special meeting called for such purpose.

B. During the period of a declared Level 4 condition, all water customers shall be required to comply with all Level 1 condition, Level 2 condition and Level 3 condition water conservation measures and shall also comply with the following additional mandatory conservation measures:

1. All water leaks, breaks of other plumbing malfunctions shall be repaired upon discovery or within twenty-four hours of notification by the City of El Paso de Robles, with the exception of rental properties, which shall have up to seventy-two hours to repair interior unit leaks, in order to comply with state laws regarding the provision of notice to tenants.

2. Filling or refilling of residential pools and spas is prohibited.

3. The City will decrease line flushing.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009)

Level 5 Water Supply Shortage – Mandatory critical condition.

A. The city council or, in the event prompt action is necessary, the city manager, may recommend and declare a Level 5 Water Supply Shortage condition (a "Level 5 Condition") when there is a reasonable probability, due to a projected imbalance in available water supply and projected peak demand, that there will be a supply shortage and that a consumer demand reduction of up to fifty percent is required in order to ensure that sufficient supplies will be available to meet anticipated demands. Upon declaration of Level 5 Water Supply Shortfall, the city manager or designee shall take the necessary actions to implement the mandatory Level 5 Condition conservation practices identified in this section. In the event a Level 5 Condition has been declared by the city manager, the city council shall consider the ratification of such declaration at its next regularly scheduled meeting or at a special meeting called for such purpose.

B. During the period of a declared Level 5 Condition, all water customers shall be required to comply with all Level 1, Level 2, Level 3, and Level 4 Conditions water conservation measures and shall also comply with the following additional mandatory conservation measures:

1. All landscape irrigation, except crops and landscape products of commercial growers and nurseries, shall be prohibited. This restriction does not apply to:

    a. Watering of livestock; and

    b. Essential public works projects and actively irrigated environmental mitigation projects.

C. The city shall not enter into any new commitments or agreements to provide water to customers unless there is a net zero demand increase associated with the new connections.

Level 6 Water Supply Shortage – Mandatory emergency condition.

A. The City Manager may declare a water shortage emergency pursuant to California Water Code section 350 and declare a Level 6 Water Supply Shortage condition (a “Level 6 Condition") when there is a reasonable probability, due to a projected imbalance in available water supply and projected peak demand, that there will be a

supply shortage and that a consumer demand reduction of more than 50 percent is required in order to ensure that sufficient supplies will be available to meet anticipated demands. Upon declaration of Level 6 Condition, the City Manager or designee shall take all necessary actions to implement the mandatory Level 6 conservation practices identified in this section and on the grounds provided in California Water Code Section 350. In the event a Level 6 Condition has been declared by the City Manager, the City Council shall consider the ratification of such declaration at its next regularly scheduled meeting or at a special meeting called for such purpose.

B. During the period of a declared Level 6 Condition, all water customers shall be required to comply with all Level 1, Level 2, Level 3, Level 4, and Level 5 Conditions water conservation measures and shall also comply with the following additional mandatory conservation measures:

    1. Any other additional water restrictions not identified in previous levels that are necessary to ensure that there is enough supply for public health, safety, and welfare.

C. The City Manager shall recommend and, upon resolution of the City Council, implement a water allocation per customer account served by the City of El Paso de Robles, and a schedule of penalty for exceeding the water allocation. If the City Council adopts or modifies water allocations, the City Manager will post notice of the water allocation prior to the effective date(s). Following the effective date(s) of the water allocation as established by the City Council, any customer that uses water in excess of the allocation will be subject to a penalty for each billing unit of water in excess of the allocation. The penalty for excess water usage will be in addition to any other remedy, penalty, or fine that may be imposed for violation of this section. At the City's discretion, the water conservation measures required under Levels 1, 2, 3, 4, and 5 conditions may be suspended during the period a water allocation is in effect.

D. The City shall not enter into any new commitments or agreements to provide water to customers or agencies either inside or outside of the City of El Paso de Robles.

1.5.2. Supply Augmentation

The City overlies vast groundwater storage that can be utilized by the City for its drought or emergency supply to close the gap between supply and use. The option to increase groundwater production is already included in the normal water management planning and would not be a response triggered by the WSCP's shortage level. At this time, the City does not have contracts for transfers or exchanges.

1.5.3. Emergency Response Plan

The WSCP is to include actions to be taken in the event of catastrophic water supply interruption, such as earthquake and regional power outage. Regional power outages represent a potential interruption in water supply. The City has backup generators at some but not all City wells. In the past, the City has rented additional generators during power failures.

In Paso Robles, catastrophic interruption of water supply would most likely occur due to an earthquake, which has potential to damage wells, piping, and reservoirs. The December 22, 2003 San Simeon earthquake seriously damaged two reservoirs. In response, a City-wide water shortage emergency was declared with the purpose of reducing the City's water demand by 25 percent.

The City has a Multi-Hazard Emergency Response Plan (ERP) (Paso Robles, 2019a) that outlines policies and procedures for responding to emergencies. The ERP will be used as a resource during water supply emergencies (**Appendix A**). The ERP is to be updated every five years. Major emergencies identified in the ERP that could relate to water supplies include earthquakes, hazardous materials, flood, fire, and terrorism. The ERP:

- Establishes City policy for response to emergencies utilizing National Incident Management System (NIMS), Standard Emergency Management System (SEMS) and the Incident Command System (ICS),
- Identifies authorities and assign responsibilities for planning and response activities,
- Identifies the scope of potential hazards,
- Identifies other jurisdictions and organizations with which planning and emergency response activities should be coordinated,
- Establishes the City's emergency organization for emergency response and recovery,
- Establishes the City's policy for providing emergency information to the public,
- Outlines preplanned response actions,
- Describes the resources available to support emergency response activities,
- Establishes responsibilities for the maintenance of the overall City's emergency preparedness program, and
- Establishes basic operational protocols and guidelines for activating and operating the City's Emergency Operations Center.

The City has also prepared a Community Wildfire Protection Plan (Paso Robles, 2019b) that addresses City fire protection planning efforts to minimize wildfire risk to watershed lands, assets, firefighters, and the public.

1.5.4. Seismic Risk Assessment and Mitigation Plan

WSCPs are now to include a seismic risk assessment and mitigation plan to assess the vulnerability of the water system and include mitigations for identified vulnerabilities. The City has a Local Hazard Mitigation Plan (LHMP) that assesses risks posed by natural and human-caused hazards and includes a mitigation strategy for reducing the City's risks. The LHMP is in **Appendix B**. It also is included in Annex E of the San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan 2019 Update (Wood, 2019). The LHMP identified hazards that could affect the City and summarized their frequency of occurrence, spatial extent, potential magnitude, and significance specific to their community. Drought and water shortage was identified as a likely occurrence with a high significance but with a limited severity extent. Earthquakes were identified as a likely occurrence with a high significance and with a critical severity extent. The LHMP contains a table of 21 prioritized

mitigation actions based on risk assessment. Priority actions 18, 19 and 20 are earthquake hazard mitigations:

- Implement Digital "Collector" App for damage inspection program (DINS)
- Implement Applied Technology Council Placards and Evaluation Forms
- Develop an inventory of public and community building that may be particularly vulnerable to earthquake damage, including pre-1940's homes and with cripple wall foundations.

The LHMP information will be used by the City to help inform updates and the development of local plans, programs, and policies. The Engineering Division may utilize the hazard information when implementing the City's Community Investment Program and the Planning and Building Divisions may utilize the hazard information when reviewing a site plan or other type of development applications. The City will also incorporate the LHMP into the Safety Element of their General Plan. The LHMP is to be updated every five years.

A Draft Regional Water Infrastructure Resiliency Plan (RWIRP) (WSC, 2021) was prepared for the San Luis Obispo County Flood Control & Water Conservation District. The Draft RWIRP includes an analysis of regional water supply vulnerabilities, identifies projects and/or transfer/exchange/water sales opportunities to improve water supply resiliency, and develops a framework to facilitate inter-agency collaboration amongst San Luis Obispo County water purveyors. The City of Paso Robles was determined to have a limited vulnerability and one of the lowest risk ranks of the 41 San Luis Obispo County agencies analyzed in the RWIRP.

1.5.5. Shortage Response Action Effectiveness

For each Shortage Response Action identified in **Table 2**, an estimate of the reduction in the gap between supplies and use is included. It is difficult to determine the exact percentages of water reductions or savings and the percentages listed are general approximations of potential reductions. The estimated savings for Levels 1 and 2 add up to 20 percent while Levels 3 and 4 add up to an estimated 19 percent. Reductions for Levels 5 and 6 add up to an estimated 12 percent, for a total exceeding 50 percent if the shortage reaches Level 6. The actual effectiveness of the shortage responses will be monitored (see Section 1.10) and may be refined in future WSCP updates.

1.6. COMMUNICATION PROTOCOLS

Communication protocols will follow the City's procedures for determination and notification of water supply shortage level as outlined in the City code below.

Chapter 14.02 WATER CONSERVATION AND WATER SHORTAGE CONTINGENCY PLAN

14.02.090 Procedures for Determination and Notification of Water Supply Shortage Level

A. The existence of a Level 1 condition may be declared upon recommendation by the city manager along with a written determination of the existence of the facts and circumstances supporting the determination. A copy of the written determination will

be filed with the city clerk. The city manager or designee will publish a notice of the determination of existence of a Level 1 condition in the city's official newspaper. The city may also post notice of the condition on its website or include it in its regular billing statement.

The water department will monitor the projected supply and demand for water during periods of emergency or drought and will recommend to the city manager the extent of the conservation required. The city manager will recommend to the city council the implementation or termination of the appropriate level of water conservation in accordance with this chapter.

B. The existence of a Level 2 or Level 3 condition may be declared upon recommendation by the city manager and notification of the city council. The mandatory conservation measures applicable to Level 2 or Level 3 condition, as applicable, will take effect on the tenth day after the date the shortage level is declared. Within five days following the declaration of the applicable condition, the city manager or designee will publish a notice providing the extent, terms and conditions, and any applicable exceptions respecting the use and consumption of water. In addition, the city shall provide thirty days' notice of any changes to such water use measures and exceptions. Notices shall be published, at a minimum, for three consecutive days in the newspaper used for official city notices. The city may also post notice of the condition and applicable water use measures on its website and/or include it in its regular billing statement.

C. The existence of Levels 4, 5, or 6 condition may be declared upon recommendation by the city manager. The mandatory conservation measures applicable to Level 4, Level 5, or Level 6 conditions will take effect on the fourth day after the date the shortage level is declared. Within twenty-four hours following the declaration of the shortage level, the city manager or designee will publish a notice giving the extent, terms and conditions respecting the use and consumption of water. The notice shall be published, at a minimum, for three consecutive days in the newspaper used for official city notices. The city may also post notice of the condition on its website or include it in its regular billing statement.

D. The city council may declare an end to a particular condition upon the recommendation of the city manager by the adoption of a resolution at any regular or special meeting of the city council.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009; Ord. No. 09-962 N.S., § 1, 10-20-2009)

Water users will be informed of a potential water shortage through public notices, mailers, and/or information posted on the City’s website. Shortage levels and response actions will be announced and posted to the District’s website along with information on actions being taken to address these reductions.

The City coordinates and collaborates regularly with others regarding local and regional water management agencies. These activities are more frequent during periods of drought in order to minimize adverse drought impacts across a range of stakeholders. The City is a

Groundwater Sustainably Agency (GSA) in the Paso Robles Area Subbasin and a key member of the Atascadero Area Subbasin GSA and is participating in the cooperative water management in both subbasins for groundwater sustainability.

1.7. COMPLIANCE AND ENFORCEMENT

Chapter 14.02 WATER CONSERVATION AND WATER SHORTAGE CONTINGENCY PLAN

14.02.100 Hardship variance.

A. If, due to unique circumstances, a specific requirement of this chapter would result in undue hardship to a customer using City of El Paso de Robles water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water uses, then the customer may apply for a variance to the requirements as provided in this Section 14.02.100.

B. The variance may be granted or conditionally granted only upon a written finding of the existence of facts demonstrating an undue hardship to a customer or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water user due to specific and unique circumstances of the user or the user's property.

    1. Application. Application for a variance will be in written form prescribed by the city manager or designee and will be accompanied by a non-refundable processing fee in an amount set by resolution of the city council.

    2. Supporting Documentation. The written application will be accompanied by photographs, maps, drawings, or other pertinent information as applicable, including a written statement of the applicant.

    3. Approval Authority. The city manager or designee will exercise approval authority and act upon any completed application after submittal and may approve, conditionally approve, or deny the variance. The applicant requesting the variance will be promptly notified in writing of any action taken. The decision of the city manager or designee is final unless the applicant files a written appeal to the city council within ten days. Unless specified otherwise at the time a variance is approved, the variance applies to the subject property during the term of the applicable condition.

    4. Required Findings for Variance. An application for a variance will be denied unless the approving authority finds, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of the City of El Paso de Robles, all of the following:

        a. That the variance does not constitute a grant of special privilege inconsistent with the limitations upon other City of El Paso de Robles customers.

b. That because of special circumstances applicable to the property or its use, the strict application of this chapter would have a disproportionate impact on the property or use that exceeds the impacts upon customers generally.

c. That the authorizing of such variance will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the City of El Paso de Robles to effectuate the purpose of this Chapter 14.02 and will not be detrimental to the public interest.

d. That the condition or situation of the subject property or the intended use of the property for which the variance is sought is not common, recurrent or general in nature.

5. No relief will be granted to any customer for any reason in the absence of a showing by the customer that the customer has achieved the maximum practical reduction in water consumption in the customer's residential, commercial, industrial, institutional, agricultural or governmental water consumption.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009)

14.02.110 Violations and penalties.

It is unlawful for any customer to violate the mandatory provisions of this chapter. Violations are subject to criminal, civil, and administrative penalties and remedies as provided in Chapter 1 of this Code. In addition, service of water may be discontinued or appropriately limited through the installation of flow-restricting devices to any customer who willfully uses water in violation of this chapter.

(Ord. No. 956 N.S., § 2, 6-2-2009; Ord. No. 957 N.S., § 2, 6-16-2009)

1.8. LEGAL AUTHORITIES

The City has several legal authorities to implement and enforce its WSCP. Key authorities are listed below.

- *California Water Code, Division 1, Chapter 3.3 Excessive Residential Water Use During Drought [365 - 367*] permits the City to establish a rate structure and fines for excessive use.
- *California Water Code, Division 1, Chapter 3.5 Water Conservation Programs [375-378]* allows for the implementation of water conservation programs, the authority to enforce violation fines and penalties, and the ability to enter into agreements with other public entities, businesses, community associations, or private entities to provide water conservation services and materials for implementing water conservation programs.
- *California Water Code, Division 1, Chapter 3 (Water Shortage Emergencies), 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."

- *California Water Code, Division 6, Part 2.55 Sustainable Water Use and Demand Reduction* and *Part 2.6 Urban Water Management Planning* outline the requirements for demand reductions and Urban Water Management Plan and WSCP content. Shortage response actions to be implemented will be at the discretion of the City Council and will be based on an assessment of the supply shortage, customer response, and need for demand reductions.
- *California Code of Regulations, Title 19, Division 2, Chapter 1, Standardized Emergency Management System (SEMS),* which has been adopted by the City of Paso Robles, establishes a statewide standard response structure and basic protocols to be used by all agencies in both emergency response and recovery to a major event.
- *Chapter 1.02 Penalties, Section 1.02.010 of the Municipal Code of the City of El Paso de Robles* contains legal authority to enforce penalties and fines.
- *Chapter 14.02 of the Municipal Code of the City of El Paso de Robles* provides procedures for variance requirements and the authorization that such variances will not be detrimental to the public interest.

1.9. FINANCIAL CONSEQUENCES OF REDUCTION IN WATER USE

Successful implementation of water conservation measures results in a decrease in water demand, often with the related effect of reducing a water purveyor's revenues. Many measures to discourage excessive water use are always in effect. For the City, effective implementation of its Water Shortage Contingency Plan would result in a decline in water sales of as much as 10 to over 50 percent. Expenditures are not projected to increase during water shortage emergencies because water supply sources will remain basically the same and, while City staff may focus on shortage-related duties, no hiring of additional temporary staff or extensive overtime work is anticipated. Outreach activities, such as advertising and public education, would be conducted under the City's conservation program.

Any revenues derived from penalties for excessive water use or water wasting during the water shortage would not effectively offset lost revenues. These presumably limited revenues should be applied toward administration of the Water Shortage Contingency Plan.

Declines in operating expenses (e.g., reduced pumping and water treatment costs) would not offset declines in water revenues due to reductions in demand. Measures to overcome revenue impacts could include use of reserve funds and/or a rate adjustment. The City anticipates that reserves would be used to offset the revenue impact. If the water shortage emergency is or appears to be long-term or if City reserves are low, the City may elect to initiate rate adjustments or drought surcharges to offset these losses.

1.10. MONITORING AND REPORTING

The effectiveness of the Water Shortage Contingency Plan can be measured with the weekly monitoring of groundwater and Salinas River production, and water distribution (as NWP water and recycled water enter the system) as well as wastewater flow to the treatment plant. These values will be compared to water use and wastewater generation during normal periods and will indicate the level of water conservation. This monitoring will also alert the City as to the amount of lost revenue to expect.

The UWMP Act requires a mechanism for determining if reductions in water use are actually being achieved in response to conservation measures. Regular monitoring during a Level 1, 2, 3, 4, 5 or 6 shortage levels includes review of daily production figures and comparisons of weekly production to the target weekly production to verify that the reduction goal is being met. If reduction goals are not met, the City Manager will notify the City Council and recommend corrective action alternatives for consideration.

The City reports monthly water use to the State on an annual basis. Beginning in July of 2022, it will submit Annual Assessments with predictions of water supplies and use. During a declared water shortage, the City will post pertinent information on its website with updates on the level of shortage, shortage response actions, and possibly information on usage data and progress on meeting reduction goals.

1.11. WSCP REFINEMENT PROCEDURES

The WSCP will be revised and updated periodically, most likely in conjunction with the five-year cycle of the UWMPs. However, if needed, it can be revised at any time provided it meets the revision requirements including notification and a properly posted public hearing identified in Section 1.13.

The Annual Assessment section (Section 1.3) is new to this WSCP and may need to be modified after completing the first Annual Assessment in 2022. The monitoring of water demand responses during a shortage (see Section 1.10) will provide useful information as to the effectiveness of the WSCP response actions. This information can be used to alter responses and actions, if needed. The City will also assess the effectiveness of the communication protocols and modify those in the future if needed. The WSCP will also be updated to incorporate new regulations and new information.

1.12. SPECIAL WATER FEATURE DISTINCTION

Water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains are to be analyzed and defined separately from swimming pools and spas in WSCPs. Non-pool or non-spa water features may be able to use recycled water but pools and spas need to use potable water for health considerations. Non-pool and non-spa water features have been distinguished in this WSCP and designated with the term decorative water features.

1.13. PLAN ADOPTION, SUBMITTAL AND AVAILABILITY

This WSCP is a component of the City's 2020 UWMP and was part of the adoption process for the UWMP. Public notices were published before the public hearing in accordance with Government Code 6066. The City held a public hearing on July 8, 2021 to consider and adopt the UWMP and WSCP. Documentation of the public notice, public hearing, and UWMP and WSCP adoption resolutions are included in the 2020 UWMP Appendix A.

The adopted 2020 UWMP and WSCP will be submitted to the California Department of Water Resources within 30 days of adoption. The submittal will occur electronically through WUE Data Portal, an online submittal tool. A CD of the UWMP and WSCP will be sent to the California State Library within 30 days of adoption.

San Luis Obispo County, Paso Robles Area Subbasin GSAs Cooperative Committee, and the Atascadero Area Subbasin GSA will be sent an electronic copy of the adopted UWMP and WSCP. Plan copies will be available at City Hall and the City Library. An electronic version will be available on the City's website (http://www.prcity.com).

If the WSCP is amended independently from the UWMP, the City will inform the proper entities, such as the County and GSAs, of an update and will conduct a properly noticed public hearing to adopt the amended WSCP.

2. REFERENCES

Paso Robles, 2019a, Multi-Hazard Emergency Response Plan, May.

Paso Robles, 2019b, Community Wildfire Protection Plan, City of Paso Robles, July.

Water Systems Consulting, Inc. (WSC), 2021, Draft Regional Water Infrastructure Resiliency Plan for the San Luis Obispo County Flood Control & Water Conservation District, January 29.

Wood Environment & Infrastructure Solutions Inc. (Wood), 2019, San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan 2019 Update, Public Review Draft, October. [Paso Robles Local Hazard Mitigation Plan is included in Appendix E of this plan and approved by City Resolution No. 20-077]

Appendices

Appendix A

City of El Paso De Robles Multi-Hazard Emergency Response Plan, May 2019

RESOLUTION NO. 19-051

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES, ADOPTING THE MAY 2019, REVISION OF THE CITY OF EL PASO DE ROBLES MULTI-HAZARD EMERGENCY RESPONSE PLAN, PART 1, BASIC PLAN, THE CALIFORNIA STANDARDIZED EMERGENCY MANAGEMENT SYSTEM (SEMS), AND FEDERAL NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)

WHEREAS, the preservation of life and property is an inherent responsibility of local, state and federal governments; and

WHEREAS, no plan can prevent death and destruction, but good plans carried out by knowledgeable and well-trained personnel can and will minimize losses, and

WHEREAS, the City of Paso Robles has prepared a Multi-Hazard Emergency Response Plan to ensure the most effective and economical allocation of resources for the maximum benefit and protection of the civilian population in time of emergency; and

WHEREAS, the Multi-Hazard Emergency Response Plan establishes the emergency organization, assigns tasks, specifies policies and general procedures, establishes emergency lines of Council member succession and provides for coordination for planning efforts of the various emergency staff and service elements; and

WHEREAS, the City of Paso Robles Multi-Hazard Emergency Response Plan establishes City policy and objectives for emergency management and response; and

WHEREAS, the City wants to assure the Multi-Hazard Emergency Response Plan reflects the City's use of the Federal National Incident Management System and State Standardized Emergency Management System as adopted by Resolution 06-182 on September 9, 2006; and

WHEREAS, the City desires to update the 2003 Multi-Hazard Emergency Response Plan and provide accurate updated data for compliance with state mandates, federal mandates, and San Luis Obispo County Emergency Management Plan to the City of Paso Robles Multi-Hazard Emergency Response Plan;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The City Council of the City of El Paso de Robles hereby approves and adopts the 2019 Multi-Hazard Emergency Response Plan Part 1, Basic Plan, attached hereto as Exhibit A.

APPROVED this 21st day of May, 2019, by the following vote:

AYES: Strong, Gregory, Hamon, Garcia, Martin
NOES:
ABSENT:
ABSTAIN:

Steven W. Martin, Mayor

ATTEST:

Kristen L. Buxkemper, Deputy City Clerk

City of El Paso De Robles

Multi-Hazard

Emergency Response Plan

MAY 2019

ON FILE WITH CITY

Developed by

Paso Robles Department of Emergency Services

Jonathan Stornetta, Fire Chief

Appendix B

Paso Robles Local Hazard Mitigation Plan, Annex E of the San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan 2019 Update, Public Review Draft, October 2019

RESOLUTION NO. 20-077

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES ADOPTING THE 2020 LOCAL HAZARD MITIGATION PLAN

WHEREAS, pursuant to the Federal Disaster Mitigation Act of 2000 as set forth in 44 CFR Part 201 and FEMA's 2013 Local Hazard Mitigation Planning Workbook, the City of El Paso de Robles has prepared an updated 2019 Local Hazard Mitigation Plan to identify the risks to lives and property created by natural and artificial hazards to the City, and to formulate a set of goals, objectives and actions to mitigate risks created by these hazards; and

WHEREAS, the process of preparing the Plan included consultation with other affected governmental agencies, and a public outreach program; and

WHEREAS, the Draft Plan was submitted to the California Office of Emergency Services ("Cal OES"), and to the Federal Emergency Management Agency ("FEMA") for their review and comment; and

WHEREAS, comments received from Cal OES and FEMA were incorporated into the plan; and

WHEREAS, in April 2020, FEMA notified the City that it determined that the plan is eligible for final approval pending adoption by the City of El Paso de Robles; and

WHEREAS, the 2019 Paso Robles Local Hazard Mitigation Plan is provided as "Exhibit A" to this resolution.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. All of the above Recitals and Findings are true and correct and incorporated herein by reference.

Section 2. This Resolution shall take effect on the date it is approved.

APPROVED this 19th day of May 2020, by the following vote:

AYES: Hamon, Gregory, Garcia, Strong, Martin

Steven W. Martin, Mayor

ATTEST:

Melissa Martin, Deputy City Clerk

E.1 Community Profile

E.1.1 Mitigation Planning History and 2019 Process

This annex was created during the development of the 2019 San Luis Obispo County Hazard Mitigation Plan update. This Jurisdictional Annex builds upon the previous version of the City of Paso Robles Local Hazard Mitigation Plan completed in February 2016; that previous mitigation plan is referenced several times by the City's General Plan. A review of jurisdictional priorities found no significant changes in priorities since the last update.

The City's Local Planning Team (LPT) held responsibility for implementation and maintenance of the plan. The City Fire Chief is responsible for updating the plan.

Table E.1 Paso Robles Hazard Mitigation Plan Revision Planning Group

Department or Stakeholder	Title
Fire Department	Fire Chief
Finance Department	Senior Accountant
Community Services	Rec. Services Manager
Fire Department	Battalion Chief
Police Department	Commander
Public Works	Water/Street Manager
Community Development	Chief Building Official

More details on the planning process follow and how the jurisdictions, service districts and stakeholders participated, as well as how the public was involved during the 2019 update, can be found in Chapter 3 of the Base Plan.

E.1.2 Geography and Climate

Paso Robles is located in northern San Luis Obispo County, California, approximately halfway between the cities of Los Angeles and San Francisco. It is 19.4 square miles (12,534.7 acres) and 24 miles inland from the Pacific Ocean. Paso Robles is considered to be in the most northern area of Southern California.

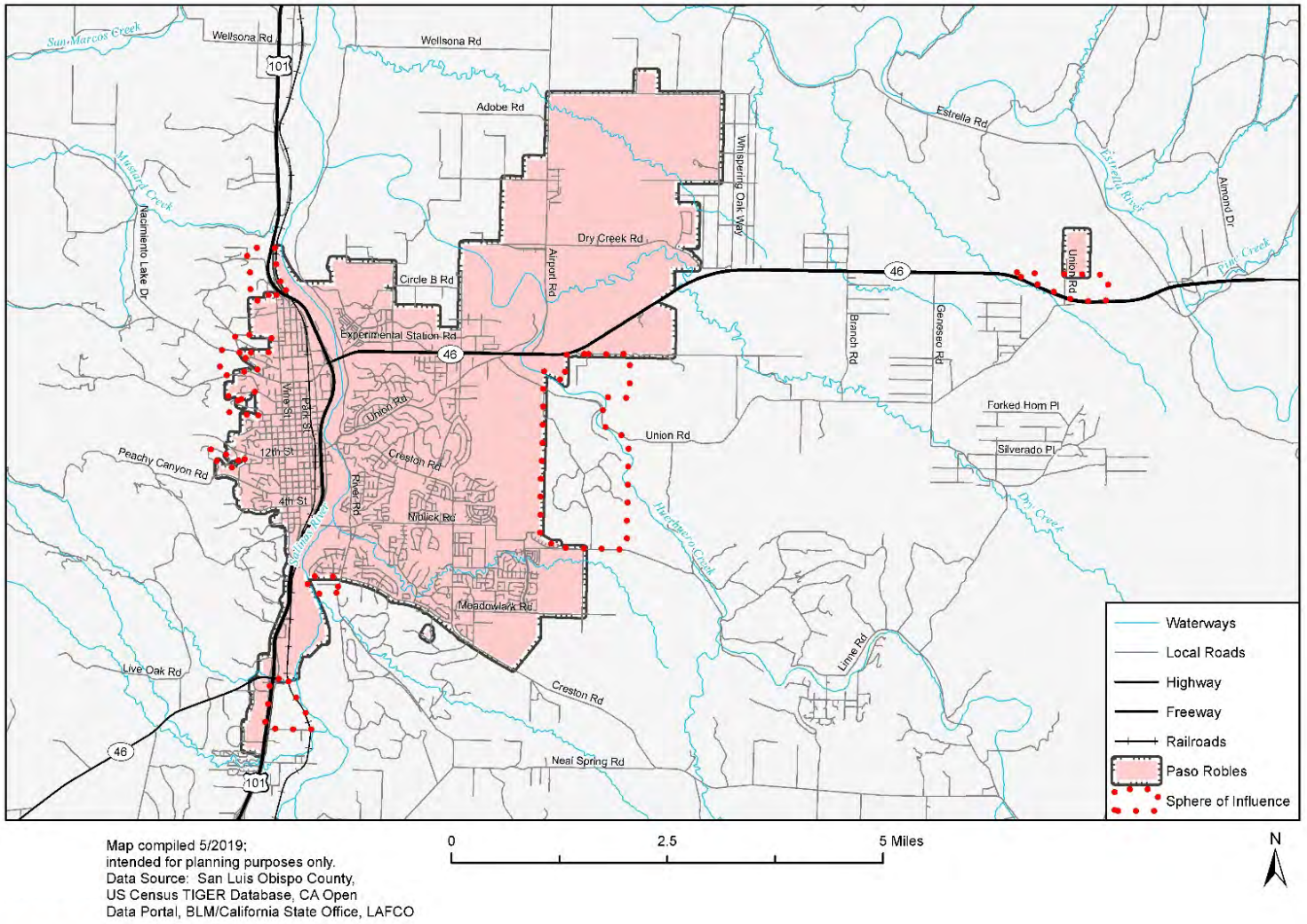
Paso Robles is bordered on the south and west by the rugged mountainous ridges of the Santa Lucia Coastal Range, to the east by the low hills of the La Panza and Temblor Ranges, and to the north by the low hills and flat-topped mesas of the Diablo Range. The highest elevations in the vicinity are located in the Santa Lucia Coastal Range where many peaks are 2,000 to 3,400 feet above mean sea level. Substantial ridgelines are distributed throughout the western, southern, and eastern portions of the City. The Mediterranean climate of the region and coastal influence produce moderate temperatures year round, with rainfall concentrated in the winter months.

Within the City limits, the Salinas River, U.S. Highway 101 and the Union Pacific Railroad divides the City east to west at the center of the City. The City is bounded by steep hills and canyons on the west, and open rolling hills to the east. Suburban residential development frames the City on the southern and eastern edges, with lower density residential development to the north and west of the City. Agricultural uses both north and south of the

City eventually give way to the unincorporated communities of Templeton and San Miguel, approximately 5 miles south and 9 miles north, respectively.

Figure E.1 displays a map of the City of Paso Robles planning area.

Figure E.1 The City of Paso Robles



E.1.3 History

The Paso Robles area was home to several Native American tribes for thousands of years before the mission era.

In 1857, James and Daniel Blackburn purchased the Rancho Paso de Robles Mexican land grant. The land was a rest-stop for travelers of the Camino Real trail, and was known for its mineral hot springs. In 1864, the first El Paso de Robles Hotel was constructed and featured a hot mineral springs bath house. In 1886, after the coming of the Southern Pacific Railroad, work began on laying out a town site, with the resort as the nucleus.

Paso Robles incorporated as a City in 1889. That same year, construction began on the current El Paso de Robles Hotel, which opened for business in 1891.

For a time, Paso Robles was known as the "Almond City" because the local almond growers created the largest concentration of almond orchards in the world. The ranchers in the outlying areas were very important to the Paso Robles area. On these ranches were cattle and horses, grain crops (primarily wheat and barley), garden produce and fruit and nut orchards. Many of these ranch lands and orchards have become vineyards for the many wineries which currently draw tourists to the area.

Wine grapes were introduced to the Paso Robles soil in 1797 by the Spanish conquistadors and Franciscan missionaries. The first vineyardists in the area were the Padres of the Mission San Miguel, and their old fermentation vats and grapevine artwork can still be seen at the Mission, north of the City of Paso Robles. Commercial winemaking in the Paso Robles region dates back to 1882 when Andrew York, a settler from Indiana, established the Ascension Winery at what is now York Mountain Winery. Paso Robles' reputation as a premier wine region became established in the 1920s and 30s, and continues to this day.

Paso Robles has a "Council-Manager" general law form of government where the City Manager is appointed by the City Council and is the Chief Executive Officer of the Municipal Corporation. The City Council acts as the board of directors of the municipal corporation and meets in a public forum where citizens may participate in the governmental process.

The City Council consists of five members elected at-large, on a non-partisan basis. Residents elect the Mayor and four Council members, making each accountable to the entire citizenry. Council members serve four-year overlapping terms. The mayor is directly elected and serves a two-year term. The City Council establishes City policies, approves ordinances and resolutions, makes land use decisions, approves agreements and contracts, hears appeals on decisions made by City staff or advisory committees, and sets utility rates. The Mayor and City Council members receive a monthly stipend set by resolution.

The City Manager is the Chief Executive Officer of the City. The City Manager is appointed by the City Council to enforce city laws, to direct the operations of city government, to prepare and manage the municipal budget, and to implement the policies and programs initiated by the City Council. The City Manager is responsible to the City Council, and directs departments and operations.

The City Attorney is appointed by the City Council and works under contract to the City. The City Attorney is the legal advisor for the council. He or she provides general legal advice on all aspects of city business and represents the City in legal actions.

The City Clerk is an elected official. The City Clerk is charged with responsibility of maintaining records of council actions, permanent records of all city transactions and documents, and coordinating the city's elections. The Deputy City Clerk is an appointed staff position that assists the City Clerk in carrying out all duties.

The City Treasurer is an elected position responsible for the custody and investment of all city funds. The City Treasurer is also responsible for administrating the City budget.

Boards, commissions and special committees composed of local citizens are frequently appointed by the City Council to advise the City Council in one or more aspects of city government. Typical advisory committees include Parks & Recreation, Streets and Utilities, Airport, and Youth and Senior Citizens. The Planning Commission implements Council development and land use policy, and makes recommendations for policy revisions.

One of the major investments the City makes is the City's work force. City employees perform the day-to-day functions necessary to provide services to the community. Department heads administer specific functions of city government and are responsible to the City Manager. Such positions are Public Works Director, Community Development Director, Library and Recreation Services Director, Administrative Services Director, and Police and Fire Chiefs.

E.1.4 Economy

Based on the 2017 American Community Survey (ACS) Paso Robles' labor force is estimated to be 16,782 persons. The City has a relatively diverse economic, with no single sector or industry making up more than 20% of all jobs. The educational services, health care and social services accounts for 17.8% of jobs, followed by retail trades (12.5%); manufacturing (12.0%); and arts, entertainment and recreation, accommodation, & food services (11.7%). While the City's manufacturing sector has declined some – as recently as 2001 it represented 23.2% of the local economy – Paso Robles is one of the few areas in the region where manufacturing still accounts for a sizable fraction of employment. By comparison, manufacturing in San Luis Obispo County as a whole is approximately 6.0%.

The City's largest employers include Paso Robles School District, Firestone Walker, Walmart, Applied Tech., City of Paso Robles, IQMS, Joslyn-Sunbank, Zurn, Target, Lowes, and Cuesta College. At 4.5%, the City's unemployment rate is half what is was in 2012 in the aftermath of the economic recession. This has been accompanied by a nearly 12% increase in per capita income, from $27,199 in 2012 to $30,446 in 2017.

Table E.2 shows how Paso Robles' labor force breaks down by occupation and industry based on estimates from the U.S. Census Bureau's 2017 American Community Survey.

As the leading agricultural business in the county, the area's wine industry attracts more than half a million visitors to San Luis Obispo County annually. A 2007 study of the Paso Robles and Greater San Luis Obispo County Wine and Wine Grape industries have an annual impact of $1.8 billion on the state and local economy. This has helped the economy enjoy approximately $113 million annually in tourism expenditures.

Table E.2 City of Paso Robles Employment by Industry (2017)

Industry	# Employed
Population (2017)	31,409
In Labor Force	16,782
Agriculture, forestry, fishing and hunting, and mining	834
Armed Forces	70
Construction	1,154
Manufacturing	2,008
Wholesale trade	339

Industry	# Employed
Retail trade	2,091
Transportation and warehousing, and utilities	694
Information	234
Finance and insurance, and real estate and rental and leasing	479
Professional, scientific, and management, and administrative and waste management services	1,070
Educational services, and health care and social assistance	2,980
Arts, entertainment, and recreation, and accommodation and food services	1,969
Other services, except public administration	900
Public administration	1,215
Unemployed	745

Source: U.S. Census Bureau American Community Survey 2012-2017 5-Year Estimates, www.census.gov/

E.1.5 Population

The U.S. Census Bureau estimated the City's 2017 population as 31,409, up from 29,793 at the 2010 census. Table E.3 shows an overview of key social and demographic characteristics of the City taken from the U.S. Census Bureau's American Community Survey.

Table E.3 City of Paso Robles Demographic and Social Characteristics, 2012-2017

City of Paso Robles	2012	2017	% Change
Population	29,770	31,409	+5.5%
Median Age	35.1	36.8	+4.8%
Total Housing Units	11,686	12,391	+6.0%
Housing Occupancy Rate	93.9%	95.2%	+1.3%
% of Housing Units with no Vehicles Available	5.1%	4.2%	-0.9%
Median Home Value	$369,800	$404,700	+9.4%
Unemployment	9.0%	4.5%	-4.5%
Mean Travel Time to Work (minutes)	22.8	23.2	+1.8%
Median Household Income	$57,977	$61,053	+5.3%
Per Capita Income	$27,199	$30,446	+11.9%
% of Individuals Below Poverty Level	12.2%	12.1%	-0.1%
# of Households	10,969	11,802	+7.6%
Average Household Size	2.67	2.65	-0.7%
% of Population Over 25 with High School Diploma	85.0%	84.2%	-0.8%
% of Population Over 25 with Bachelor's Degree or Higher	20.9%	23.8%	+2.9%
% with Disability	11.2%	9.3%	-1.9%
% Speak English less than "Very Well"	12.0%	13.6%	+1.6%

Source: U.S. Census Bureau American Community Survey 2012-2017 5-Year Estimates, www.census.gov/

Despite the economic gains discussed in the previous section, the number of individuals living below the poverty level has stayed relatively constant, although it is still below average for the County (13.8%) and for California as

(15.1%). The percentage of high school graduates and college graduates are below average for the County, State, and Nation as a whole. The number of individuals who speak English less than very well is also significantly above the County averages (6.8%), though still below the State average (18.4%).

E.1.6 Development Trends

According to the 2003 General Plan Land Use Element (revised in April 2014) approximately 78.1 percent (8,639 acres) of the City's total land area is developed as residential, commercial, mixed use and industrial land, and public facilities uses. The remaining land is made up of 2,448 acres of agriculture (7.3 percent) and parks and open space (14.5 percent).

Table E.4 shows the potential land use categories for the 2025 build-out population of 44,000 persons as identified in the City's General Plan. However, as noted in the revised Land Use Element, it is expected that an additional 20 years (2045) or longer will be needed to reach the 44,000 persons build-out population.

Table E.4 General Plan Development Potential (2014 Update)

Land Use Category	Acreage	Percent
Commercial	1,271	10.0%
Business Park/Industrial	1,721	13.5%
Other/Public Facilities	1,947	15.3%
Agriculture & Open Space	2,572	20.0%
Residential	5,228	41.2%
Total	12,739	100%

Source: City of El Paso de Robles General Plan 2003 Land Use Element, as amended April 1, 2014

When the General Plan Update was adopted in 2003, based on the pace of development activity at that time, it was anticipated that residential build-out of the City, resulting in a population of 44,000, would occur by 2025. However, the national economic slowdown that began in 2007, coupled with the history of periodic slowdowns over prior decades, has caused the City to consider that build-out and an attendant population of 44,000 may take more than 20 additional years: to 2045 or longer, to attain.

Updated zoning and land use maps can be found on the City's website.

E.2 Hazard Identification and Summary

The Paso Robles planning team identified the hazards that affect the City and summarized their frequency of occurrence, spatial extent, potential magnitude, and significance specific to their community (see

Table E.5). There are no hazards that are unique to Paso Robles. The overall hazard significance takes into account the geographic area, probability and magnitude as a way to identify priority hazards for mitigation purposes. 'NI' in the table means not identified. This is discussed further in the Vulnerability section.

Table E.5 City of Paso Robles – Hazard Summaries

Hazard	Geographic Area	Probability of Future Occurrence	Magnitude/ Severity (Extent)	Overall Significance
Adverse Weather: Thunderstorm/ Heavy Rain/Hail/Lighting/Dense Fog/Freeze	Significant	Highly Likely	Limited	High
Adverse Weather: High Wind	Significant	Highly Likely	Limited	High
Adverse Weather: Extreme Heat	Extensive	Highly Likely	Limited	High
Agricultural Pest Infestation and Disease	Limited	Limited	Unlikely	Low
Biological Agents (naturally occurring)	Limited	Limited	Unlikely	Low
Dam Incidents	Significant	Occasional	Limited	Low
Drought and Water Shortage	Extensive	Likely	Limited	High
Earthquake	Significant	Likely	Critical	High
Flood	Significant	Likely	Limited	High
Landslides and Debris Flow	Limited	Likely	Limited	High
Subsidence	Likely	Limited	Negligible	High
Wildfire	Extensive	Highly Likely	Critical	High
Human Caused: Hazardous Materials	Extensive	Highly Likely	Negligible	Low

Geographic Area
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Probability of Future Occurrences
Highly Likely: Near 100% chance of occurrence in next year or happens every year.
Likely: Between 10 and 100% chance of occurrence in next year or has a recurrence interval of 10 years or less.
Occasional: Between 1 and 10% chance of occurrence in the next year or has a recurrence interval of 11 to 100 years.
Unlikely: Less than 1% chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years.

Magnitude/Severity (Extent)
Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths
Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability
Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability
Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid

Significance
Low: minimal potential impact

	Medium: moderate potential impact High: widespread potential impact

E.3 Vulnerability Assessment

The intent of this section is to assess Paso Robles's vulnerability separate from that of the planning area as a whole, which has already been assessed in Section 5.3 Risk Assessment in the main plan. This vulnerability assessment analyzes the population, property, and other assets at risk to hazards ranked of medium or high significance that may vary from other parts of the planning area.

The information to support the hazard identification and risk assessment was based on the City's previous LHMP. A Local Hazard Mitigation Plan Update Guide and associated worksheets was distributed to each participating municipality or special district to complete during update process in 2019. Information collected was analyzed and summarized in order to identify and rank all the hazards that could impact anywhere within the County, as well as to rank the hazards and identify the related vulnerabilities unique to each jurisdiction.

Each participating jurisdiction was in support of the main hazard summary identified in the Base Plan (See Table 5-2). However, the hazard summary rankings for each jurisdictional annex may vary slightly due to specific hazard risk and vulnerabilities unique to that jurisdiction. Identifying these differences helps the reader to differentiate the jurisdiction's risk and vulnerabilities from that of the overall County.

Note: The hazard "Significance" reflects overall ranking for each hazard, and is based on the City of Paso Robles's HMPC member input from the Data Collection Guide and the risk assessment developed during the planning process (see Section 5.1 of the Base Plan), which included a more detailed qualitative analysis with best available data.

The hazard summaries in Table E.5 above reflect the hazards that could potentially affect the City. The discussion of vulnerability for each of the following hazards is located in Section E.3.2 Estimating Potential Losses. Based on this analysis, the priority hazards (High Significance) for mitigation are:

- Adverse Weather: Thunderstorm/Heavy Rain/Hail/Lighting/Dense Fog/Freeze
- Adverse Weather: High Wind
- Adverse Weather: Extreme Heat
- Drought and Water Shortage
- Earthquake
- Flood
- Landslides and Debris Flow
- Subsidence
- Wildfire

Other Hazards

Hazards assigned a significance rating of Low and which do not differ significantly from the County ranking (e.g., Low vs. High) are not addressed further in this plan, and are not assessed individually for specific vulnerabilities in this section. In the City of Paso Robles, those hazards include dam incidents and hazardous materials incidents.

Coastal hazards (coastal storm/coastal erosion/sea level rise and tsunami) are Not Applicable (N/A) to the City of Paso Robles.

E.3.1 Assets at Risk

This section considers Paso Robles's assets at risk, including values at risk, critical facilities and infrastructure, historic assets, economic assets and growth and development trends.

Values at Risk

The following data on property exposure is derived from the San Luis Obispo County 2019 Parcel and Assessor data. This data should only be used as a guideline to overall values in the City as the information has some limitations. The most significant limitation is created by Proposition 13. Instead of adjusting property values annually, the values are not adjusted or assessed at fair market value until a property transfer occurs. As a result, overall value information is likely low and does not reflect current market value of properties. It is also important to note that in the event of a disaster, it is generally the value of the infrastructure or improvements to the land that is of concern or at risk. Generally, the land itself is not a loss. Table E.6 shows the exposure of properties (e.g., the values at risk) broken down by property type for the City of Paso Robles.

Table E.6 2019 Property Exposure for the City of Paso Robles by Property Types

Property Type	Parcel Count	Improved Value	Content Value	Total Value
Agricultural	25	$47,041,880	$47,041,880	$94,083,760
Commercial	552	$347,729,528	$347,729,528	$695,459,056
Government/Utilities	175	$1,520,500	--	$1,520,500
Other/Exempt/Misc.	313	$99,728,929	--	$99,728,929
Residential	8,281	$1,768,587,601	$884,293,801	$2,652,881,402
Multi-Family Residential	728	$223,890,340	$111,945,170	$335,835,510
Mobile/Manufactured Homes	326	$42,447,085	$21,223,543	$63,670,628
Residential: Other	138	$136,086,048	$68,043,024	$204,129,072
Industrial	71	$101,658,828	$152,488,242	$254,147,070
Vacant	105	$53,222,625	--	$53,222,625
TOTAL	**10,714**	**$2,821,913,364**	**$1,632,765,187**	**$4,454,678,551**

Source: Wood Plc analysis based on ParcelQuest and San Luis Obispo County Assessor's Office data 2019

Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. See Section 5 of the Base Plan for more details on the definitions and categories of critical facilities.

An inventory of critical facilities in the City of Paso Robles from San Luis Obispo County GIS is provided in Table E.7 and illustrated in Figure E.3. Table E.8 lists additional critical assets identified by the planning team.

Table E.7 City of Paso Robles's Critical Facilities

Facility Type	Counts
Colleges / Universities	1
Day Care Facilities	14
Emergency Medical Service Stations	1
Fire Stations	3
Local Law Enforcement	1
Nursing Homes	2
Private Schools	3
Public Schools	12
Supplemental Colleges	1
Urgent Care	2
Power Plants	1
AM Transmission Towers	1
FM Transmission Towers	1
Microwave Service Towers	12
Water Treatment Facilities	1
Energy Commission Facilities	2
City Hall	1
Centennial Park	1
Solar Facility	1
Wastewater Treatment Facility	1
Reclaimed Water Facility	1
Senior Center	1
Airports	1
Total	**64**

Source: San Luis Obispo County Planning & Building, HIFLD 2017

Figure E.2 Critical Facilities in Paso Robles

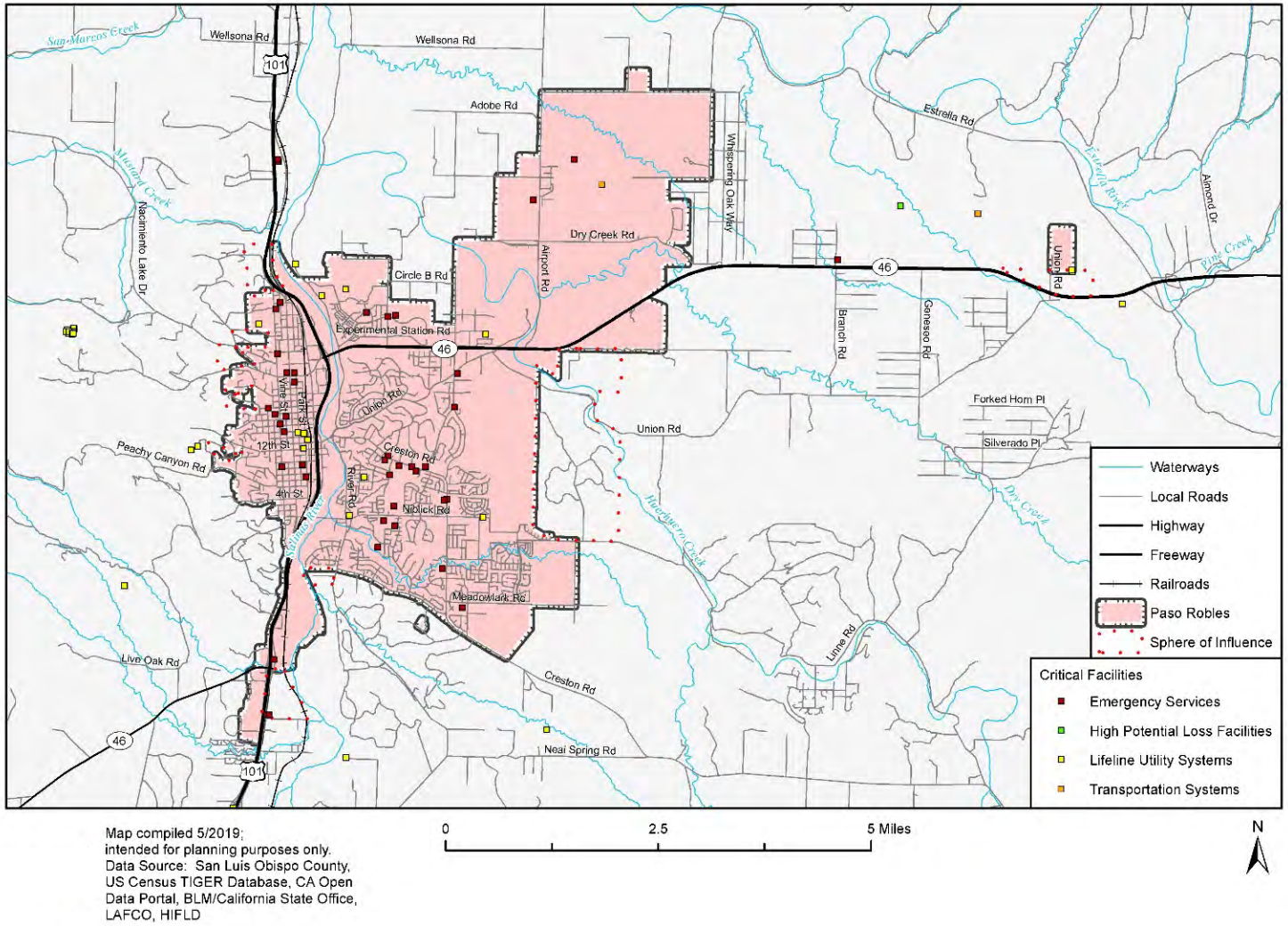


Table E.8 Critical Assets Identified by Paso Robles Planning Team

Name of Asset	Type	Replacement Value
Public Safety Center	EI	$26,617,412
Fire Station 2	EI	$2,564,063
Fire Station 3	EI	$569,290
City Hall / Library	EI	$34,939,638
Water Maintenance Yard	EI	$1,162,597
Water yard	EI	$1,260,592
21st Reservoir	EI	$8,135,298
Golden Hill Reservoir	EI	$4,929,794
Merry Hill Reservoir	EI	$849,806
Airport Complex	EI	$9,545,306
Bus / Train Station	EI	$2,953,766
Senior Center	EI	$4,602,493
Veterans Bldg.	EI	$3,234,992
Barney Schwartz Park	VF	$14,041,296
City Park	VF	$5,402,108
Lawrence Moore Park	VF	$379,124
Paso Robles Municipal Pool	VF	$3,708,901
Sherwood Forest	VF	$1,690,419

Source: Paso Robles Planning Team.

EI: Essential Infrastructure. VF: Vulnerable Facility

Transportation and Lifeline Facilities

Major transportation and lifeline facilities are located adjacent to US Highway 101 and the Union Pacific Railroad line that traverse through the City. Damages to these transportation corridors would impact not only Paso Robles but the entire region.

Other lifelines include Niblcik Bridge, 13th Street Bridge, Highway 46E Bridge, Highway 46W and G14.

Historic and Cultural Resources

The National Register of Historic Places contains five sites in the City of Paso Robles:

- Bank of Italy (aka Old Bank of America), 1245 Park St.
- Brewster-Dutra House (aka Moye House), 1803 Vine St.
- Carnegie Library, City Park, 800 12th St.
- Lincoln School (aka Adelaida School), 9000 Chimney Rock Rd. (outside City limits)
- Paso Robles Almond Growers Association Warehouse (aka Farmers' Alliance Building), 525 Riverside Ave.

There is also one California State Historical Landmark located in Paso Robles: the Estrella Adobe Church.

Natural Resources

Natural resources are important to include in benefit-cost analyses for future projects and may be used to leverage additional funding for projects that also contribute to community goals for protecting sensitive natural

resources. Awareness of natural assets can lead to opportunities for meeting multiple objectives. For instance, protecting wetlands areas protects sensitive habitat as well as attenuates and stores floodwaters.

Key natural assets include the riverbed with riverwalk and open space areas throughout the City.

Economic Assets

Key economic assets include: the downtown corridor, car dealerships, Lowe's Plaza, Woodland Plaza, Target Center, Aiport commercial businesses, and Commerce Road businesses.

E.3.2 Estimating Potential Losses

Note: This section details vulnerability to specific hazards of high or medium significance, where quantifiable, and/or where (according to HMPC member input) it differs from that of the overall County.

Table E.6 above shows Paso Robles's exposure to hazards in terms of number and value of structures. San Luis Obispo County's parcel and assessor data was used to calculate the improved value of parcels. The most vulnerable structures are those in the floodplain (especially those that have been flooded in the past), unreinforced masonry buildings, and buildings built prior to the introduction of modern-day building codes. Impacts of past events and vulnerability to specific hazards are further discussed below (see Section 4.1 Hazard Identification for more detailed information about these hazards and their impacts on San Luis Obipso County as a whole).

Adverse Weather: Thunderstorm/Heavy Rain/Hail/Lighting/Dense Fog/Freeze

Paso Robles's risk and vulnerability to this hazard does not differ substantially from that of the County overall. Weather data for the North County Inland Area, Paso Robles Weather Station, can be found in Section 5.3.1 of the Base Plan.

Adverse Weather: High Wind/Tornado

Paso Robles's risk and vulnerability to this hazard does not differ substantially from that of the County overall.

Adverse Weather: Extreme Heat

Paso Robles's risk and vulnerability to this hazard does not differ substantially from that of the County overall. Weather data for the North County Inland Area, Paso Robles Weather Station, can be found in Section 5.3.1 of the Base Plan.

Drought and Water Shortage

The City of Paso Robles gets the majority of its water from the Paso Robles groundwater basin. The Paso Robles basin underlies approximately 640 square miles in northeastern San Luis Obispo County, and is estimated to have over 26 million acre-feet of water in storage. The basin has experienced serious declines over the years due to groundwater pumping, with the largest water use sector being agricultural uses. As a result, the State has identified the Paso Robles basin as the highest priority groundwater basin within San Luis Obispo County. The large volume of the basin means it can continue to supply water through multiple drought years, even though the increased pumping will put additional strain upon the stored groundwater resource. The perennial yield of the Paso Robles Groundwater Basin is estimated to be 89,700 acre-feet per year (AFY). Annual average change in groundwater storage for the period 1981-2011 is estimated at -2,400 AFY.

Until 2015, all water demands in the City were met with groundwater. The City of Paso Robles began using Nacimiento Project Water in 2015. The City holds a right to 6,488 AFY.

Historically, recycled water has not been used as a source of water in Paso Robles. The City is currently upgrading its water treatment system and plans to use its treated wastewater for irrigation and other non-potable uses.

Earthquake

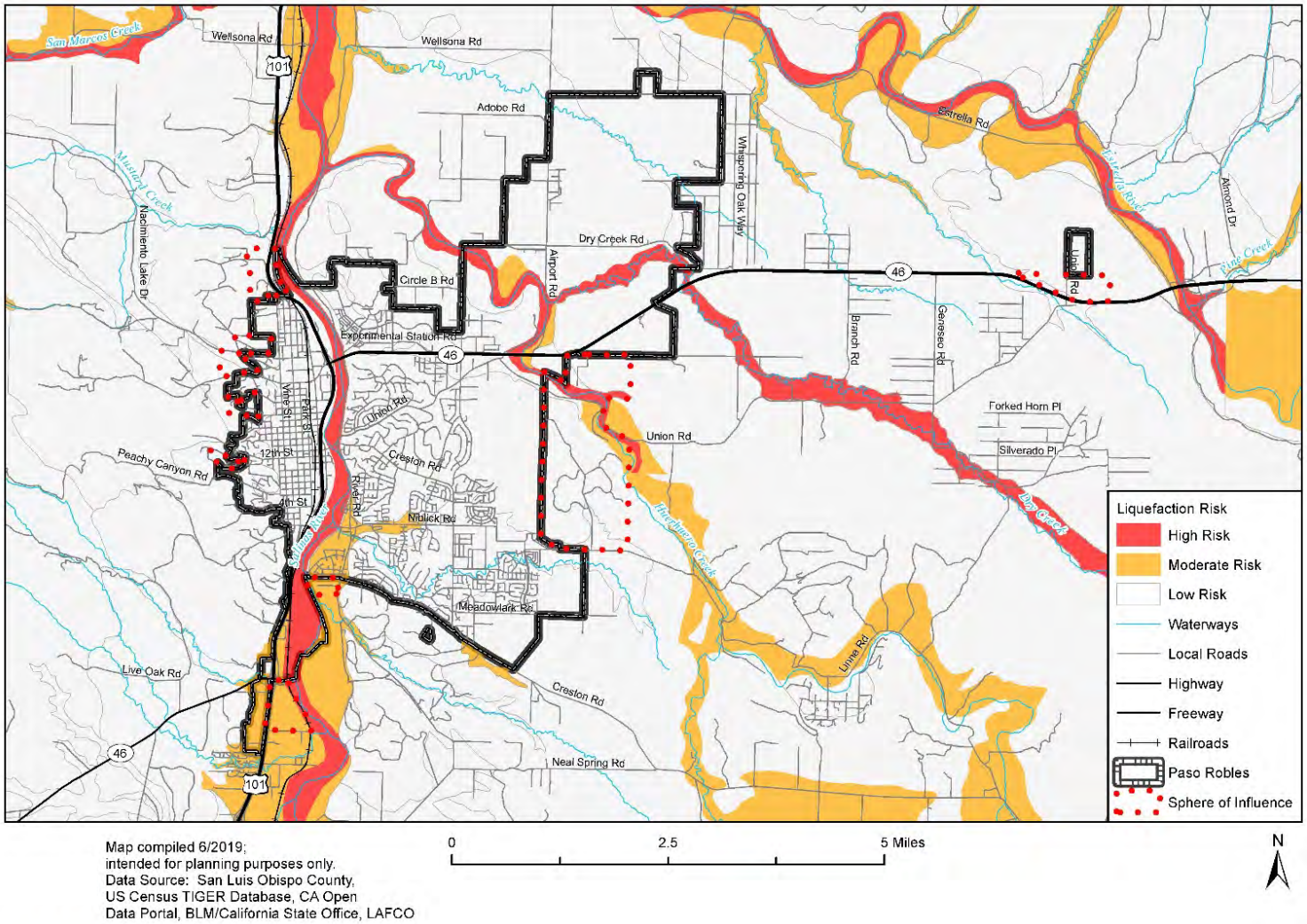
Historically, most of the earthquakes that have occurred near Paso Robles have originated from movement along the San Andreas Fault, which is located approximately 38 miles northeast of the City limits. While no large earthquakes greater than Mw 5.0 have occurred recently within the City limits, a number of relatively large earthquakes outside Paso Robles have caused damage within the County of San Luis Obispo and neighboring counties.

The only known mapped fault within the City of Paso Robles is the Rinconada fault. The potentially active Rinconada fault is mapped through southwestern Paso Robles and crosses Highway 101 just south of Spring Street. A trace of the fault is also identified as running up Spring Street, which corresponds to a line of hot springs that once existed in this area but have since been capped and buried. As a potentially active fault, the Rinconada presents a moderate fault rupture hazard to the City. Further studies to evaluate the activity of the faults are warranted, prior to placing structures near the mapped fault traces.

The northern end of the potentially active La Panza fault is located about 20 kilometers (12.43 miles) southeast of Paso Robles, near the town of Creston. The northwest striking La Panza fault is about 75 kilometers (46.6 miles) long. The Huerhuero fault is a possible extension of the La Panza and is mapped trending northwest along Huerhuero Creek south of Highway 46 but is not within the current City limits.

In addition to being at risk of groundshaking as a result of a fault rupture, the City is also susceptiable to the effects of liquefaction. The areas of Paso Robles that have a high potential to be underlain by potentially liquefiable sediments are those areas underlain by younger alluvium. Portions of the City that are located on recent alluvium in the low-lying areas adjacent to the Salinas River (or its tributaries) appear to have the highest potential for liquefaction. Site specific studies are needed to evaluate if a geologic unit actually contains potentially liquefiable materials, and if they require mitigation for development. Refer to Section 5 of the Base Plan for additional details on the City's risk to liquefaction.

Figure E.3 City of Paso Robles Liquefaction Risk



Map compiled 6/2019;
intended for planning purposes only.
Data Source: San Luis Obispo County,
US Census TIGER Database, CA Open
Data Portal, BLM/California State Office, LAFCO

Table E.9 City of Paso Robles High Liquefaction Risk by Property Type

Property Type	Parcel Count	Improved Value
Commercial	7	$16,318,866
Government/Utilities	14	--
Other/Exempt/Misc.	18	$7,183,009
Residential	12	$4,120,150
Multi-Family Residential	2	$10,941,483
Mobile/Manufactured Homes	1	$8,229
Industrial	3	$5,203,845
Vacant	3	$1,262,852
TOTAL	**60**	**$45,038,434**

Source: San Luis Obispo County Planning and Building Dept., Assessor's Office, ParcelQuest, Wood Plc Parcel Analysis

Table E.10 City of Paso Robles Moderate Liquefaction Risk by Property Type

Property Type	Parcel Count	Improved Value
Commercial	47	$79,980,028
Government/Utilities	7	--
Other/Exempt/Misc.	8	$14,634,770
Residential	375	$75,137,054
Mobile/Manufactured Homes	1	$619,485
Residential: Other	2	$12,124,284
Industrial	5	$16,516,884
Vacant	12	$11,398,932
TOTAL	**457**	**$210,411,437**

Source: San Luis Obispo County Planning and Building Dept., Assessor's Office, ParcelQuest, Wood Plc Parcel Analysis

Table E.11 City of Paso Robles Critical Facilities at Risk from Liquefaction

Critical Facility Type	Count	Risk
Public Schools	1	Moderate
Urgent Care	1	Moderate
TOTAL	**2**	

Source: San Luis Obispo County Planning & Building, HIFLD 2017

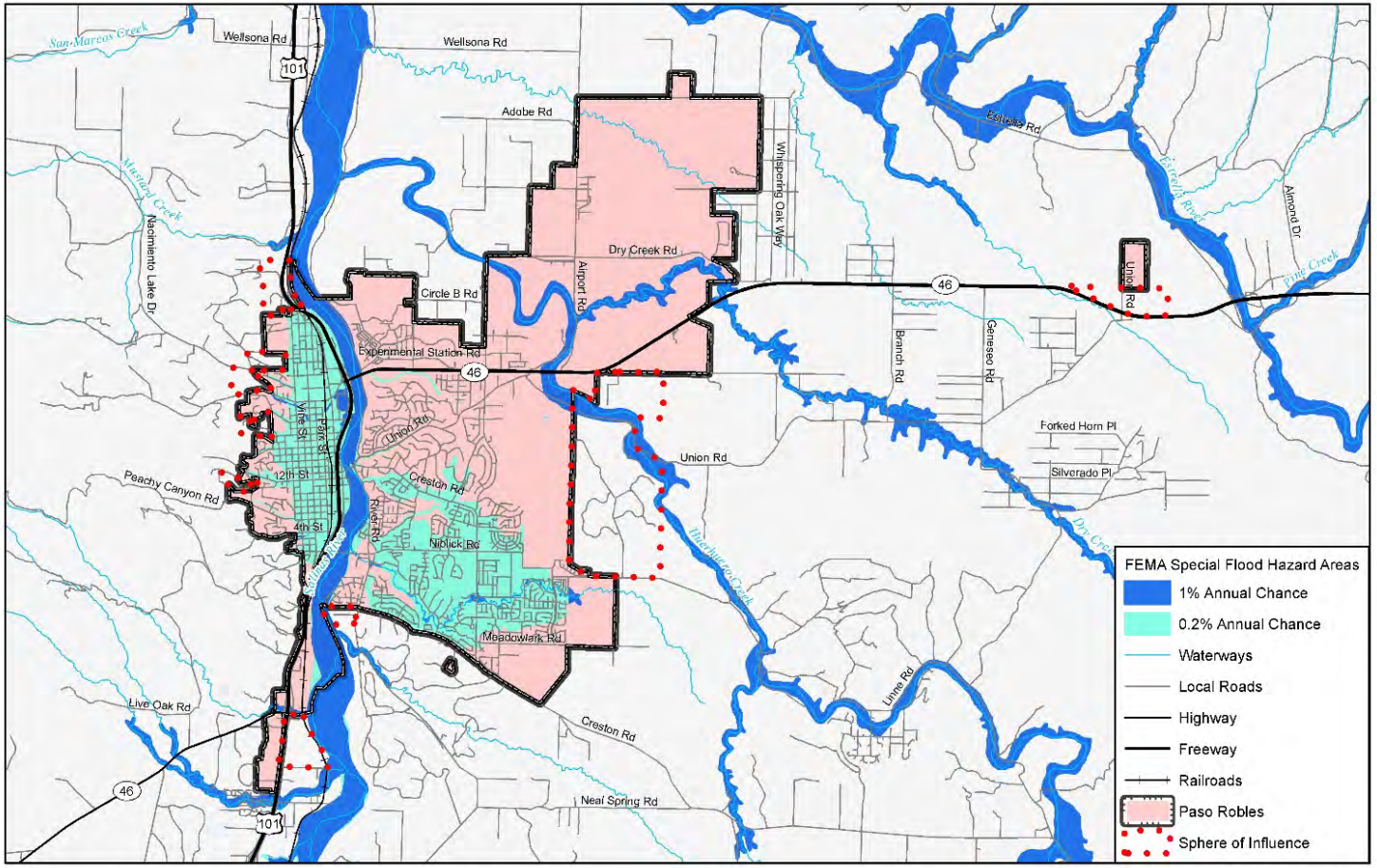
Flood and Levee Failure

In Paso Robles, the two most common types of flooding are riverine flooding, and localized flooding. The most serious flood events on record for Paso Robles occurred during storms in the early months of 1969, 1973, 1978, 1995, 2001, 2004-2005, 2005-2006, and 2010-2011.

Values at Risk

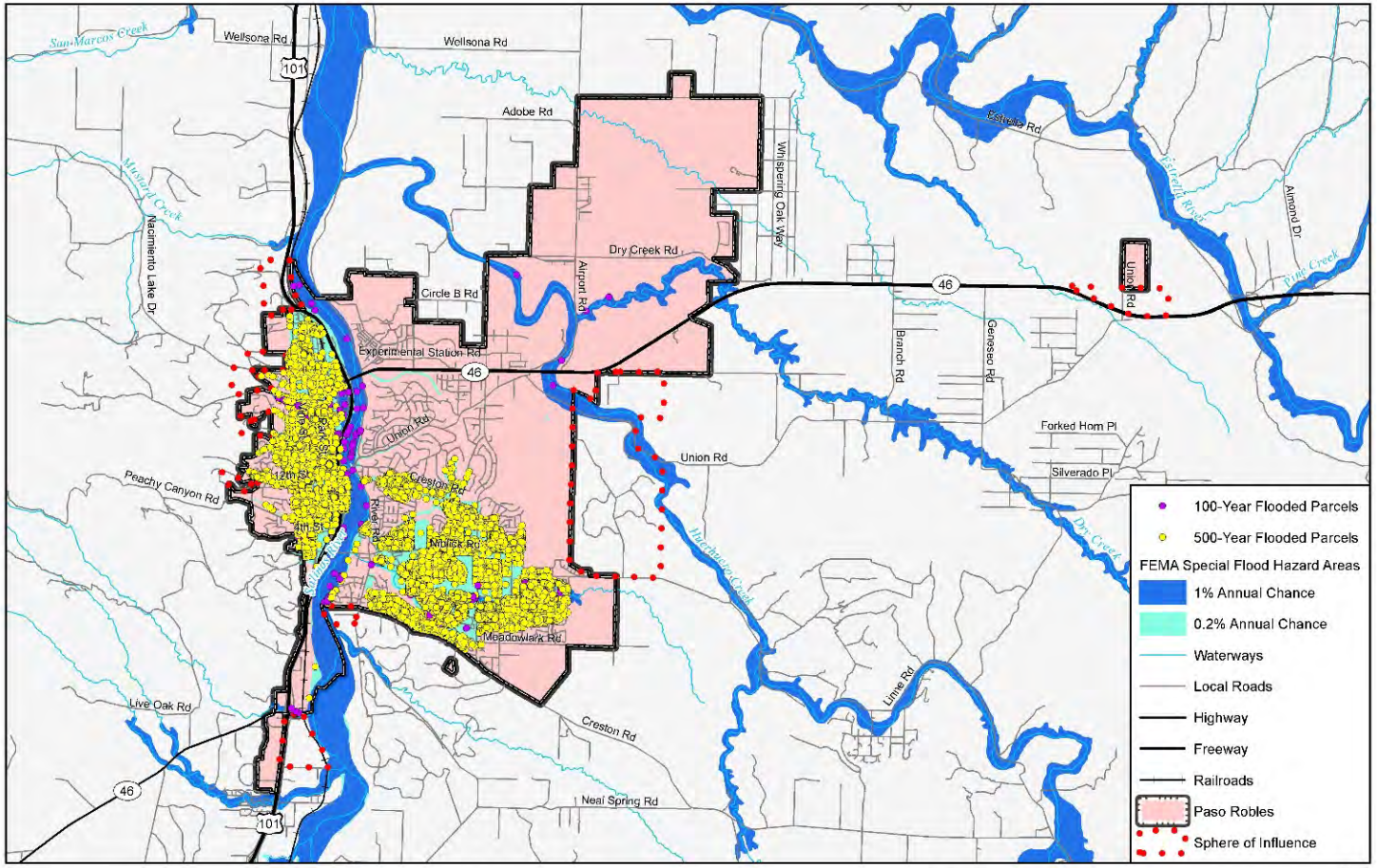
Following the methodology described in Section 5.3.8, a flood map for the City of Paso Robles was created (see Figures E.4 and E.5). Tables E.11 and E.12 summarize the values at risk in the City's 100-year and 500-year floodplain, respectively. These tables also detail loss estimates for each flood. Note that the potential loss increases significantly with the 500-year or 0.2% annual chance flood.

Figure E.4 City of Paso Robles' 100- and 500-Year Floodplains



Map compiled 5/2019;
intended for planning purposes only.
Data Source: San Luis Obispo County, US Census TIGER Database, CA Open Data Portal, BLM/California State Office, LAFCO, FEMA NFHL

Figure E.5 City of Paso Robles' Parcels at Risk of Flooding



Population at Risk

Table E.12 City of Paso Robles 1% (100 year) Floodplain Risk

Property Type	Parcel Count	Improved Value	Content Value	Total Value	Loss Estimate	Population
Commercial	7	$6,685,871	$6,685,871	$13,371,742	$3,342,936	--
Government/Utilities	27	--	--	$0	$0	--
Other/Exempt/Misc.	25	$7,438,009	--	$7,438,009	$1,859,502	--
Residential	31	$6,036,122	$3,018,061	$9,054,183	$2,263,546	78
Multi-Family Residential	31	$25,115,004	$12,557,502	$37,672,506	$9,418,127	78
Mobile/Manufactured Homes	1	$440,283	$220,142	$660,425	$165,106	3
Industrial	1	$139,934	$209,901	$349,835	$87,459	--
Vacant	3	$43,711	--	$43,711	$10,928	--
TOTAL	**126**	**$45,898,934**	**$22,691,477**	**$68,590,411**	**$17,147,603**	**158**

Source: San Luis Obispo County Planning and Building Dept., Assessor's Office, ParcelQuest, Wood Plc Parcel Analysis

Table E.13 City of Paso Robles 0.2% (500 year) Floodplain Risk

Property Type	Parcel Count	Improved Value	Content Value	Total Value	Loss Estimate	Population
Agricultural	1	$4,994,987	$4,994,987	$9,989,974	$2,497,494	--
Commercial	413	$188,376,646	$188,376,646	$376,753,292	$94,188,323	--
Government/Utilities	95	$1,500,073	--	$1,500,073	$375,018	--
Other/Exempt/Misc.	160	$42,498,954	--	$42,498,954	$10,624,739	--
Residential	4,049	$679,611,889	$339,805,945	$1,019,417,834	$254,854,458	10,163
Multi-Family Residential	603	$172,240,571	$86,120,286	$258,360,857	$64,590,214	1,514
Mobile/Manufactured Homes	264	$29,355,209	$14,677,605	$44,032,814	$11,008,203	663
Residential: Other	113	$71,386,480	$35,693,240	$107,079,720	$26,769,930	284
Industrial	43	$46,126,123	$69,189,185	$115,315,308	$28,828,827	--
Vacant	34	$7,909,348	--	$7,909,348	$1,977,337	--
TOTAL	**5,775**	**$1,244,000,280**	**$738,857,892**	**$1,982,858,172**	**$495,714,543**	**12,623**

Source: San Luis Obispo County Planning and Building Dept., Assessor's Office, ParcelQuest, Wood Plc Parcel Analysis

Insurance Coverage, Claims Paid, and Repetitive Losses

The City of Paso Robles has been a participant in the National Flood Insurance Program since 1981, and will continue to participate and remain in compliance with the National Flood Insurance Program (NFIP).

Table E.14 City of Paso Robles NFIP Insurance Policy Information

Policies	Insurance in Force	No. of Paid Losses	Total Losses Paid
65	$18,517,800	5	$50,642

Source: FEMA National Flood Insurance Program Community Information System

FEMA Community Information System shows that as of April 2019 the City of Paso Robles does not have any Repetitive Loss (RL) or Severe Repetitive Loss (SRL) properties. Paso Robles does not participate in the Community Rating Systm (CRS).

Critical Facilities at Risk

None of the City's identified critical facilities are located in the 1% Annual (100 year) Floodplain. Critical facilities located in the 0.2% Annual (500-year) Floodplain are shown in the following table.

Table E.15 City of Paso Robles Critical Facilities in the 0.2% (500-year) Floodplain

Facility Type	Counts
Colleges / Universities	1
Day Care Facilities	11
Emergency Medical Service Stations	1
Fire Stations	1
Local Law Enforcement	1
Microwave Service Towers	6
Nursing Homes	2
Private Schools	3
Public Schools	9
Energy Commission Facilities	1
Water Treatment Facilities	1
TOTAL	**37**

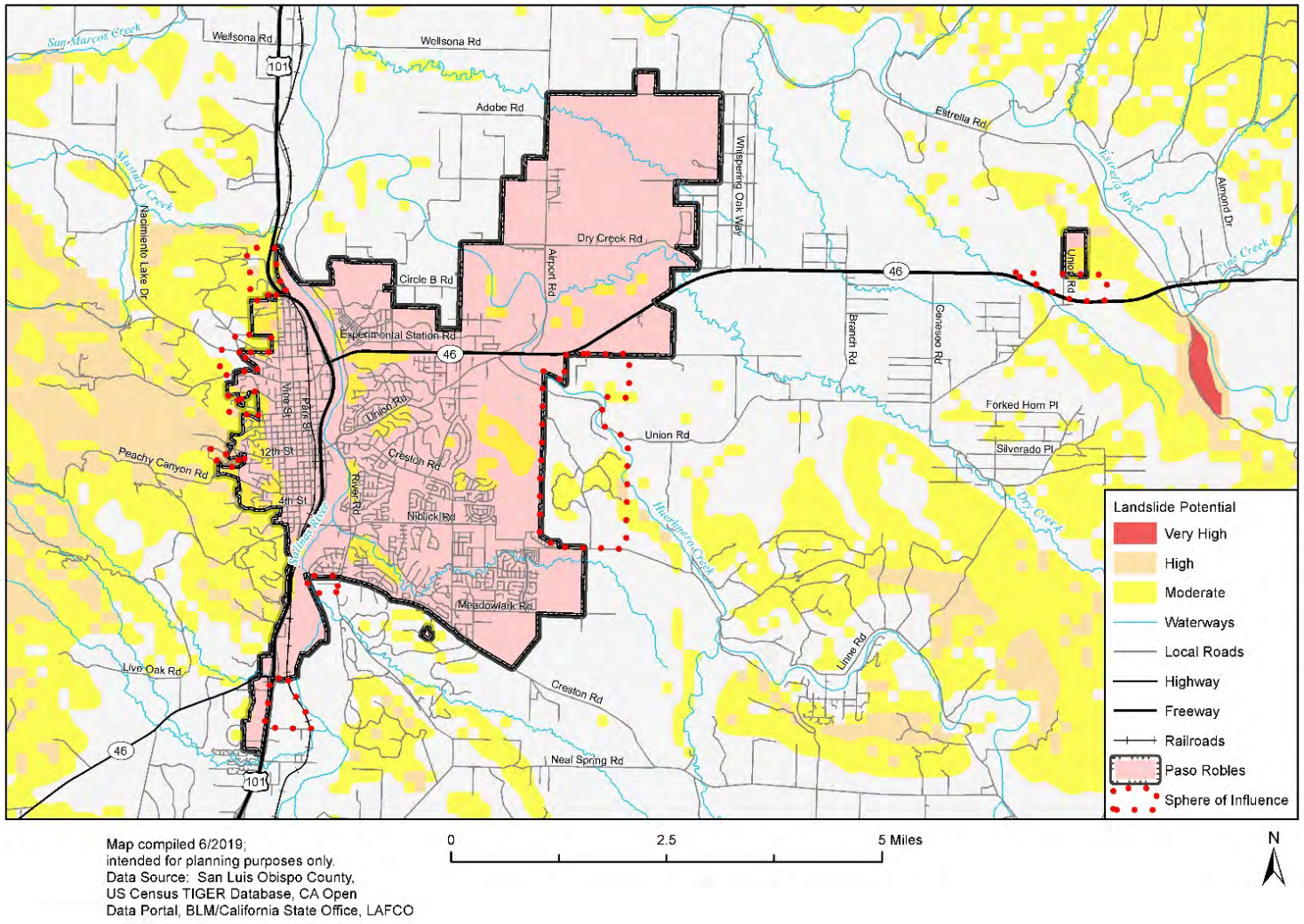
Source: San Luis Obispo County Planning & Building, HIFLD 2017

Landslides and Debris Flow

In the past twenty-five years, there have been two notable landslide events in Paso Robles. In 1995 a landslide on a hillside west of Olive Street (just north of Hilltop Drive) slid into the back of two homes after a series of winter storms. The hillside area that slid was approximately 150 wide by 40 feet high, and the slope of the hillside was about 30 percent.

December 22, 2003, numerous small landslides occurred as a result of the San Simeon Earthquake. Particularly noticeable, was a landslide along State Routes 46 and 41, east and west of downtown. The larger surficial slides were observed in the Franciscan Formation along State Route 46. Surficial slides were also observed along River Road in Paso Robles.

Figure E.6 City of Paso Robles Landslide Risk



Paso Robles has 861 properties and 11 critical facilities at high or moderate risk of landslides, as shown in the following tables.

Table E.16 Paso Robles Properties at High Risk of Landslide

Property Type	Property Count	Improved Value
Residential	7	$2,327,397
Multi-Family Residential	4	$805,413
Vacant	1	$38,500
TOTAL	**12**	**$3,171,310**

Source: San Luis Obispo County Planning and Building Dept., Assessor's Office, ParcelQuest, Wood Plc Parcel Analysis

Table E.17 Paso Robles Properties at Moderate Risk of Landslide

Property Type	Property Count	Improved Value
Agricultural	1	$17,828,970
Commercial	4	$10,816,442
Government/Utilities	23	--
Other/Exempt/Misc.	23	$8,370,189
Residential	755	$181,139,095
Multi-Family Residential	35	$6,912,732
Vacant	8	$1,218,988
TOTAL	**849**	**$226,286,416**

Source: San Luis Obispo County Planning and Building Dept., Assessor's Office, ParcelQuest, Wood Plc Parcel Analysis

Table E.18 Paso Robles Critical Facilities at Risk from Landslide

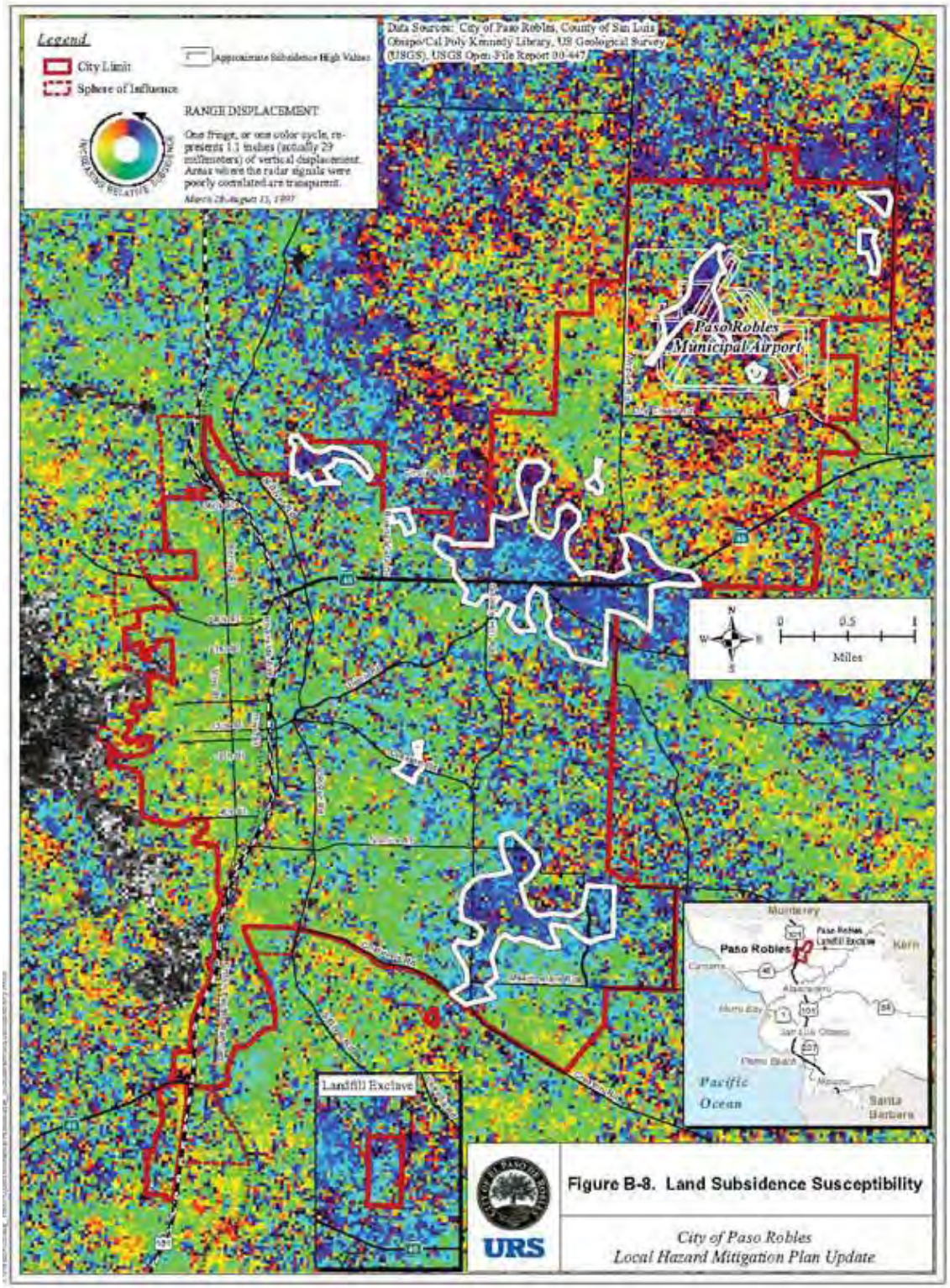
Critical Facility Type	Count	Risk
Microwave Service Towers	2	Moderate
Public Schools	9	Moderate
TOTAL	**11**	

Source: San Luis Obispo County Planning & Building, HIFLD 2017

Subsidence

As shown in Figure E.5, Paso Robles has 1.90 square miles of subsidence-prone areas along the Salinas River and Huerhuero Creek, as well as in the east and especially, southeast portions of the City.

Figure E.7 City of Paso Robles' Land Subsidence Susceptibility



Wildfire

Wildfire is a high significance hazard for the City of Paso Robles. Paso Robles has three properties and two critical facilities located in High Severity SRA Zones, as shown in Table E.11. The City does not have any parcels in Very High or Moderate Severity zones. While the number of properties in the City itself is relatively low, the City is almost completely surrounded by high and very high severity zones, as shown in the following map.

Fire seasons have grown longer and more intense in recent years, testing the City's firefighting resources and community resilience. Using weather factors such as wind, humidity and temperature, severe fire weather occurs greater than 46 days per year, in and around the City of Paso Robles.

Many areas throughout the City are highly succeptible to large conflagarations. One area of high concern is the Salinas Riverbed corridor. The riverbed corridor encompasses over 680 acres, much of it heavily forested. The brush and dead fuels provide a significant source of fuel not able to be addressed by annual weed abatement activities, due to restrictive regulations.

Emergency Response personnel responded to 115 fires in the riverbed corridor in 2018. From January 1-June 30, 2019, Emergency Response personnel responded to 63 fires. Thus, the risk of fire in the riverbed jumping out of the bed and racing through the rest of the community is unacceptably high. Fires in the riverbed corridor threaten critical City infrastructure, nearby residential and commercial properties, and the health and safety of all residents and visitors in the area. On July 16, 2019, the City of Paso Robles proclaimed a local emergency related to the riverbed fires.

High density of wildland fire ignitions are observable within and adjacent to the City of Paso Robles. These notable concentrations are illustrated in Figure E.8.

Figure E.8 Ignition Density in the Paso Robles Area

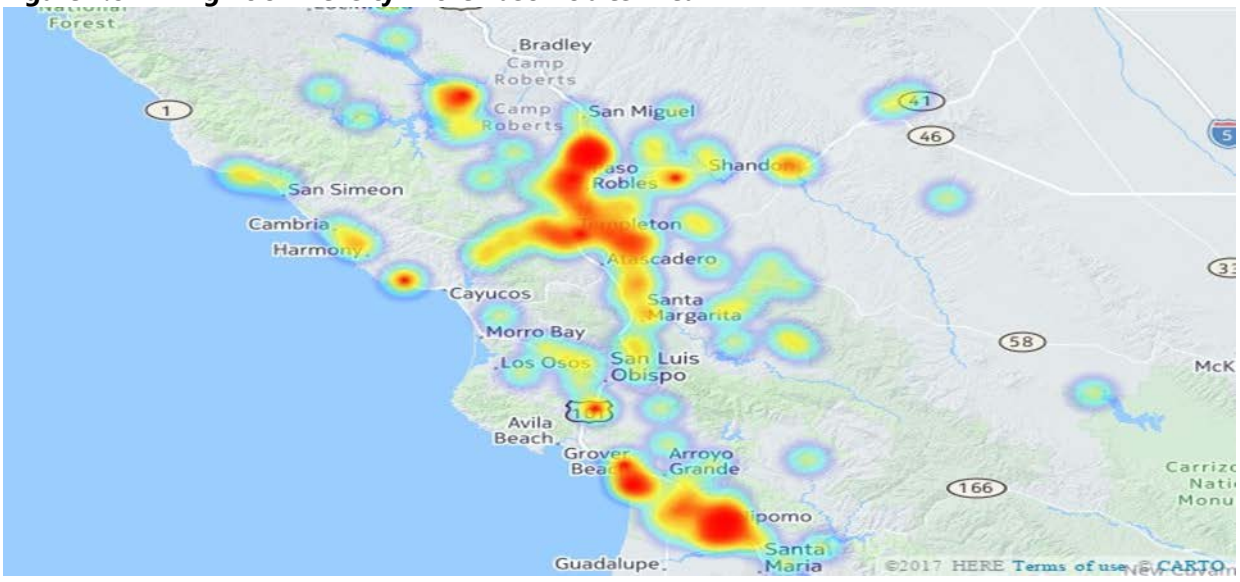
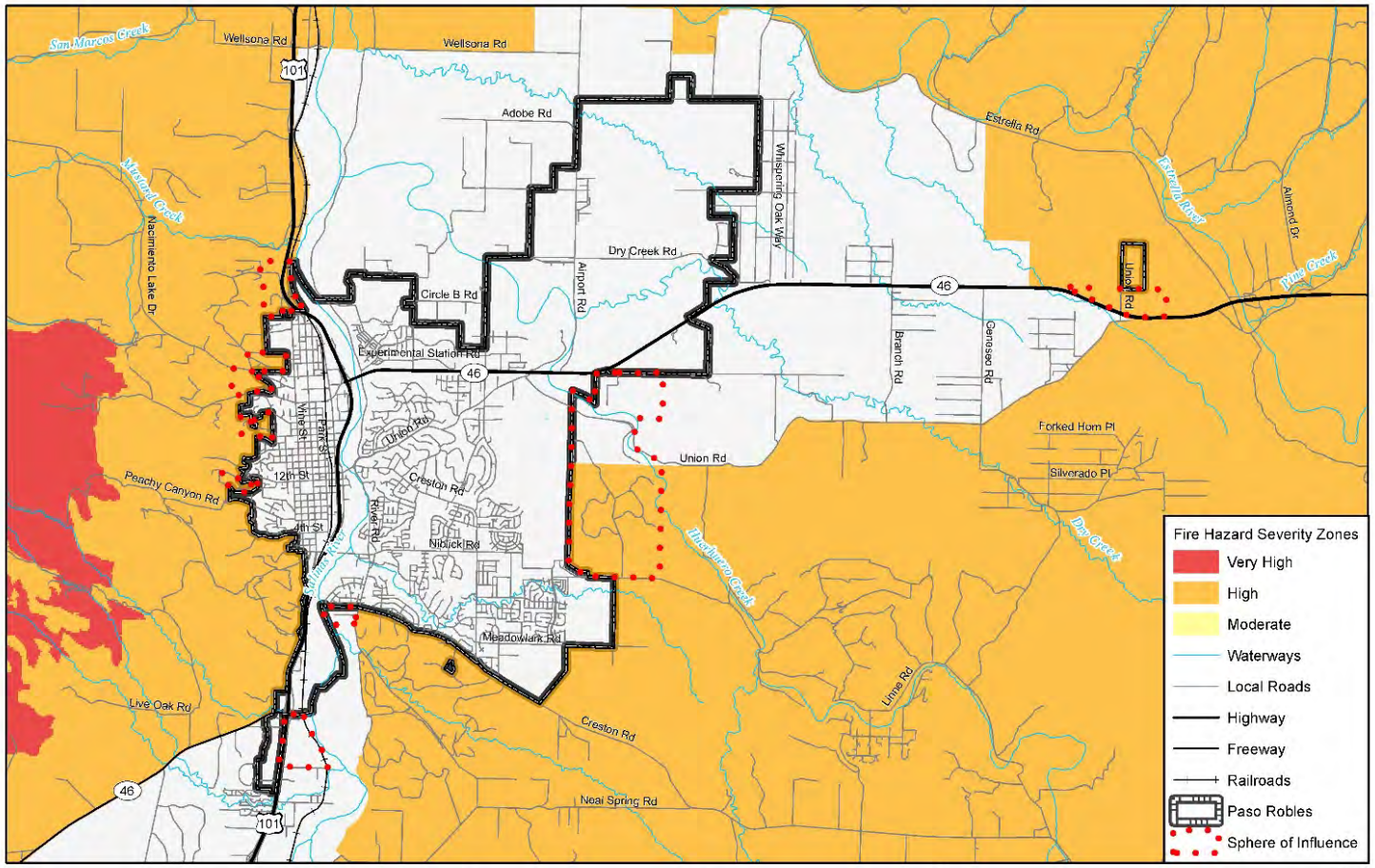


Figure E.9 Fire Hazard Severity Zones in the Paso Robles Area



Map compiled 6/2019;
intended for planning purposes only.
Data Source: San Luis Obispo County, US Census TIGER Database, CA Open Data Portal, BLM/California State Office, LAFCO, CalFire

Table E.19 City of Paso Robles Properties in High Severity SRA Zones

Property Type	Parcel Count	Improved Value	Content Value	Total Value	Loss Estimate	Population
Government/Utilities	1	--	--	$0	$0	--
Residential	1	$262,567	$131,284	$393,851	$393,851	3
Multi-Family Residential	1	$75,478	$37,739	$113,217	$113,217	3
TOTAL	**3**	**$338,045**	**$169,023**	**$507,068**	**$507,068**	**6**

Source: San Luis Obispo County Planning and Building Dept., Assessor's Office, ParcelQuest, Wood Plc Parcel Analysis

Table E.20 Paso Robles Critical Facilities at Risk from Wildfire

Critical Facility Type	Count	Risk
Microwave Service Towers	2	High
TOTAL	**2**	

Source: San Luis Obispo County Planning & Building, HIFLD 2017

Human Caused: Hazardous Materials

The Cal OES Warning Center reports 123 hazardous materials incidents in the City of Paso Robles from 1994 through October 24, 2018; as noted in Section 5.3.13 of the County plan, this likely excludes a large number of unreported minor spills. This constitutes 7% of the hazardous materials incidents reported countywide during the same time frame, and averages out to roughly 4.9 incidents per year. As noted in Section 5.3.13, only around 6% of reported hazardous materials incidents result in injuries, fatalities, or evacuations.

As shown in Figure 5-84 in the Base Plan, there are three EPA Risk Management Plan (RMP) facilities and five CalARP regulated facilities located in the City.

E.4 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation outreach and partnerships, and other mitigation efforts.

To develop this capability assessment, the jurisdictional planning representatives used a matrix of common mitigation activities to inventory which of these policies or programs were in place. The team then supplemented this inventory by reviewing additional existing policies, regulations, plans, and programs to determine if they contributed to reducing hazard-related losses.

During the plan update process, this inventory was reviewed by the jurisdictional planning representatives and Wood consultant team staff to update information where applicable and note ways in which these capabilities have improved or expanded. Additionally, in summarizing current capabilities and identifying gaps, the jurisdictional planning representatives also considered their ability to expand or improve upon existing policies and programs as potential new mitigation strategies. The City of Paso Robles's capabilities are summarized below.

E.4.1 Regulatory Mitigation Capabilities

Table E.21 City of Paso Robles Regulatory Mitigation Capabilities

Regulatory Tool	Yes/No	Comments
General plan	Yes	Current General Plan on City Website
Zoning ordinance	Yes	Updated September 2018
Subdivision ordinance	Yes	See City Website.
Growth management ordinance	Yes	See City Website
Floodplain ordinance	Yes	Floodplain Management Ordinance (2008)
Other special purpose ordinance (stormwater, water conservation, wildfire)	Yes	Hazardous Fuels Reduction Ordinance (2019) Storm Water Management Ordinance (2013)
Building code	Yes	2016 California Building Code, Title 17 Municipal Code (See Website)
Fire department ISO rating	Yes	ISO Rating 03/3X
Building Department ISO Rating	Yes	ISO Rating 2/3
Erosion or sediment control program	Yes	Ongoing Public Works/ Development Review Process
Stormwater management program	Yes	Public Works
Site plan review requirements	Yes	Ongoing Development Review Process
Capital improvements plan	Yes	Revolving Five Year Program
Economic development plan	No	
Local emergency operations plan	Yes	EOC Emergency Plan and Annexes
Other special plans	No	
Flood Insurance Study or other engineering study for streams	Yes	FEMA LOMR by project when applicable, City Engineer
Elevation certificates (for floodplain development)	Yes	FEMA/ Floodplain Development requirements ongoing, City Engineer

E.4.2 Administrative/Technical Mitigation Capabilities

Table E.22 identifies the personnel responsible for activities related to mitigation and loss prevention in Paso Robles.

Table E.22 City of Paso Robles Administrative/Technical Mitigation Capabilities

Personnel Resources	Yes/ No	Department/ Position	Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Community Development Department (Planning Division)	Develops and maintains the General Plan, Including the Safety Element. Develops area plans based on the General Plan, to provide more detailed guidance for the development of more specific areas. Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. Anticipates and acts on the need for new plans, policies, and Code changes. Applies the approved plans, policies, code provisions, and other regulations to proposed land uses.
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Community Development Department (Building Division)	Oversees the effective, efficient, fair, and safe enforcement of the California Building Code.
Planner/engineer/scientist with an understanding of natural hazards	Yes	Community Development (Building and Engineering Divisions)	Reviews Grading and Building Plans to ensure that development is in compliance with existing policies and codes relating to mitigation of natural hazards.
Personnel skilled in GIS	Yes	Administrative Services GIS	
Full time building official	Yes	Community Development Department/Building Official	
Floodplain manager	Yes	Community Development Department (Engineering Division)	Reviews and ensures that new development proposals do not increase flood risk, and that new developments are not located below the 100-year flood level. In addition, the Floodplain Administrator is responsible for planning and managing flood risk reduction projects throughout the City.
Emergency manager	Yes	Emergency Services (Fire Chief)	Coordinates local response and relief activities within the Emergency Operation Center, and works closely with county, state, and federal partners to support planning and training and to provide information and coordinate assistance.
Grant writer	Yes	Emergency Services	
Other personnel			

Personnel Resources	Yes/ No	Department/ Position	Comments
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	GIS	
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Reverse 911 and EAS activated through Sherriff's Department	
Procurement Services Manager	Yes	Administrative Services	Provides a full range of municipal financial services and administers several licensing measures.

E.4.3 Fiscal Mitigation Capabilities

Table E.23 identifies financial tools or resources that the City could potentially use to help fund mitigation activities.

Table E.23 City of Paso Robles Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use (Yes/No)	Comments
Community Development Block Grants	N	
Capital improvements project funding	Y	
Authority to levy taxes for specific purposes	Y	
Fees for water, sewer, gas, or electric services	Y	
Impact fees for new development	Y	
Incur debt through general obligation bonds	Y	
Incur debt through special tax bonds	Y	
Incur debt through private activities	N	
Withhold spending in hazard prone areas	N	

E.4.4 Mitigation Outreach and Partnerships

The City conducts several ongoing public education or information programs, such as for fire safety, disaster preparedness, wildland preparedness, responsible water use, FOG (fats, oils and greases), and storm water public education.

E.4.5 Other Mitigation Efforts

Other mitigation efforts the City has conducted include:

- Riverbed Hazardous Fuels Reduction Program
- Weed Abatement Program
- Fuel Breaks
- Un-reinforced Masonry Building Retrofit Ordinance (retrofits completed)

E.4.6 Opportunities for Enhancement

Based on the capabilities assessment, the City of Paso Robles has several existing mechanisms in place that already help to mitigate hazards. In addition to these existing capabilities, there are also opportunities for the City to expand or improve on these policies and programs to further protect the community. Future improvements may include providing training for staff members related to hazards or hazard mitigation grant funding in partnership with the County and Cal OES. Additional training opportunities will help to inform City staff members on how best to integrate hazard information and mitigation projects into their departments. Continuing to train City staff on mitigation and the hazards that pose a risk to the City of Paso Robles will lead to more informed staff members who can better communicate this information to the public.

E.5 Mitigation Strategy

E.5.1 Mitigation Goals and Objectives

The City of Paso Robles Planning Team determined the two goals from the 2014 HMP continue to be approriate for this plan update. The following are the City of Paso Robles's 2019 mitigation goals and objectives:

Goal 1 – Minimize loss of life, injury, and damage to property, the economy, and the environment from the hazards identified in the 2016 LHMP.

Goal 2 – Build and enhance local mitigation capabilities to reduce the hazards identified in the 2016 LHMP. This will help ensure individual safety, reduce damage to public and private buildings and guarantee continuity of emergency services.

Continued Compliance with the National Flood Insurance Program

The City has been an NFIP participating community since 1981. In addition to the mitigation actions identified herein the City will continue to comply with the NFIP. This includes ongoing activities such as enforcing local floodplain development regulations, including issuing permits for appropriate development in Special Flood Hazard Areas and ensuring that this development mitigated in accordance with the regulations. This will also include periodic reviews of the floodplain ordinance to ensure that it is clear and up to date and reflects new or revised flood hazard mapping.

E.5.2 Completed 2016 Mitigation Actions

During the 2019 planning process the City of Paso Robles Planning Team reviewed all the mitigation actions from the 2016 plan. During the 2019 planning process the Planning Team identified that of their fifteen (15) mitigation actions from 2016, thirteen (13) were deferred and two (2) of the actions are in progress demonstrating the ongoing progress of building the community's resiliency to disasters.

E.5.3 Mitigation Actions

The planning team for the City of Paso Robles identified and prioritized the following mitigation actions based on the risk assessment. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, estimated cost, and timeline, are also included. Actions were prioritized using the process described in Section 7.2.1 of the Base Plan. Actions with an '*' are those that mitigate losses to future development.

Table E. 24 City of Paso Robles 's Mitigation Action Plan

ID	Hazard(s) Mitigated	Description/Background/Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status/ Implementation Notes
PR.1*	Drought, Flood, Landslide, Wildfire, Subsidence	Integrate the hazard analysis and mitigation strategy into the General Plan's Safety Element.	CMO	Little to no cost	Staff Time/Dept. Budget	Low	TBD	Deferred
PR.2*	Flood, Landslide, Wildfire, Subsidence	Create a GIS-based pre-application review for new construction and major remodels in hazard areas, such high wildfire severity zones, moderate landslide susceptibility areas, and dam failure inundation zones.	Community Development Department/ Department of Emergency Services	Less than $10,000	FEAM HMA/Staff Time/Dept. Budget	Low	3-5 yrs.	Deferred
PR.3	Flood, Landslide, Wildfire	Establish a county evacuation and re-population plan. Make sure this plan works with other municipalities so that people are not receiving conflicting information about where to evacuate to. Benefit: Reduce death and injury; organized and systemic approach to evacuation of area with predesignated locations on where to go	Emergency Services Department	Less than $10,000	General fund; FEMA HMA	High	1 yr.	New
PR.4	Dam Failure	Develop a public outreach program that informs property owners located in the dam inundation areas about voluntary flood insurance.	Public Works Department	Little to no cost	Staff Time/Dept. Budget	Low	2-3 yrs.	Deferred
PR.5	Drought	Develop a drought contingency plan to provide an effective and systematic means of assessing drought conditions, develop mitigation actions and programs to reduce risks in advance of drought, and develop response options that minimize hardships during drought.	Public Works Department	$10,000 to $50,000	FEMA HMA	High	3-5 yrs.	Deferred
PR.6	Drought	Develop measures to achieve a higher level of irrigation efficiency with respect to plant water requirements, through assistance programs to customers.	Public Works Department	Little to no cost	Staff Time/Dept. Budget	Low	2-3 yrs.	Deferred

ID	Hazard(s) Mitigated	Description/Background/Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status/ Implementation Notes
PR.7	Extreme Heat	Initiate an extreme heat public awareness and educational campaign to discuss the dangers of extreme heat, steps each individual can personally take during periods of extreme heat and ways to reduce energy consumption during periods of extreme heat.	Emergency Services Department	Little to no cost	Staff Time/Dept. Budget	Low	1 yr.	Deferred
PR.8	Flood	Acquire, relocate, elevate, and/or floodproof public works critical facilities that are located within the 100-year floodplain.	Public Works Department	$500,000 to $1,000,000	FEMA HMA	High	More than 5 yrs.	Deferred
PR.9	Flood	Reinforce roads from flooding through protection activities, including elevating the road and installing/widening culverts beneath the road or upgrading storm drains.	Public Works Department	$500,000 to $1,000,000	FEMA HMA	High	More than 5 yrs.	Deferred
PR.10	Flood	Develop a public outreach program that educates property owners about voluntary flood insurance (targeted at areas that historically flood, but are not acknowledged on FEMA flood insurance rate maps)	Public Works Department	Little to no cost	Staff Time/Dept. Budget	Low	2-3 yrs.	Deferred
PR.11	Flood	Partner with propane companies and regulating agencies to secure tanks located in special flood hazard areas.	Emergency Services Department	Little to no cost	Staff Time/Dept. Budget	Low	1 yr.	Deferred
PR.12	Flood	Increase participation in the NFIP by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	Public Works Department	Little to no cost	Staff Time/Dept. Budget	Low	1 yr.	Deferred
PR.13	Hazardous Materials	Continue to monitor the manufacture, storage, and transport of hazardous materials by working with environmental health and public safety agencies to identify effective mitigation actions or requirements that will help reduce the risk of incidents, including the spread of released materials.	Emergency Services Department	Little to no cost	Staff Time/Dept. Budget	Low	Ongoing	Deferred

ID	Hazard(s) Mitigated	Description/Background/Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status/ Implementation Notes
PR.14 *	Multi: Landslide, Subsidence	Establish local zoning regulations that require the stabilization of landslide-prone areas and land subsidence hazard areas before new development can occur, through stability improvement measures such as the inclusion of interceptor drains, in-situ soil piles, drained earth buttresses, and subdrains.	Community Development Department	Little to no cost	Staff Time/Dept. Budget	Low		Completed on an ongoing basis
PR.15	Wildfire	Create a new vegetation management program that provides vegetation management services to elderly, disabled, or low-income property owners who lack the resources to remove flammable vegetation from around their homes.	Emergency Services Department	Less than $10,000	FEMA HMA	High	3-5 yrs.	Deferred
PR.16 *	Wildfire	Implement a fuel modification program for new construction by requiring builders and developers to submit their plans, complete with proposed fuel modification zones, to the local fire department for review and approval prior to beginning construction.	Community Development Department/ Emergency Services Department	Less than $10,000	FEMA HMA	High	2-3 yrs.	In progress
PR.17	Wildfire	Ability to fast track cleanup efforts in the Salinas Riverbed with approvals through Fish and Wildlife, or other agencies involved in environmentally sensitive areas	Emergency Services Department	Less than $10,000	General funds; FEMA HMA	High	1 yr.	New
PR.18	Earthquake	Implement Digital "Collector" App for damage inspection program (DINS)	Information Technology (GIS)	Already Purchased	General Fund	Medium	2 Years	New
PR.19	Earthquake	Implement Applied Technology Council Placards and Evaluation Forms	Community Development Department	Little to No Cost	General Fund	Medium	2 Years	New
PR.20	Earthquake	Develop an inventory of public and community building that may be particularly vulnerable to earthquake damage, including pre-1940's homes and with cripple wall foundations	Information Technology (GIS)	Little to No Cost	General Fund	Medium	2 Years	New

ID	Hazard(s) Mitigated	Description/Background/Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status/ Implementation Notes
PR.21	Adverse Weather: Thunderstorm/ Heavy Rain/Hail/Lighting/Dense Fog/Freeze/ High Wind	Through newsletters, advertisements, speaking engagements and other public contacts, educate the general public and key stakeholders on the issues, responsibilities, and current efforts and successes in the area of hazard mitigation and disaster preparedness related to adverse weather.	Community Development Department/ Emergency Services Department	Little to no cost	General Fund	Medium	Annual	New

E.6 Implementation and Maintenance

Moving forward, the City will use the mitigation action table in the previous section to track progress on implementation of each project. As illustrated in Section 7.3.1 of the County plan, much progress has been made since the plan was originally developed. Implementation of the plan overall is discussed in Chapter 8 of the main plan.

E.6.1 Incorporation into Existing Planning Mechanisms

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the City to help inform updates and the development of local plans, programs and policies. The Engineering Division may utilize the hazard information when implementing the City's Community Investment Program and the Planning and Building Divisions may utilize the hazard information when reviewing a site plan or other type of development applications. The City will also incorporate this LHMP into the Safety Element of their General Plan, as recommended by Assembly Bill (AB) 2140.

As noted in Chapter 7.0 Plan Implementation, the HMPC representatives from Paso Robles will report on efforts to integrate the hazard mitigation plan into local plans, programs and policies and will report on these efforts at the annual HMPC plan review meeting.

E.6.2 Monitoring, Evaluation and Updating the Plan

The City will follow the procedures to monitor, review, and update this plan in accordance with San Luis Obispo County as outlined in Chapter 8 of the Base Plan. The City will continue to involve the public in mitigation, as described in Section 8.3 of the Base Plan. The Fire Chief will be responsible for representing the City in the County HMPC, and for coordination with City staff and departments during plan updates. The City realizes it is important to review the plan regularly and update it every five years in accordance with the Disaster Mitigation Act Requirments as well as other State of California requirements.