TO: Thomas Frutchey, City Manager

FROM: Dick McKinley, Public Works Director

SUBJECT: 2015 Urban Water Management Plan

DATE: July 19, 2015

NEEDS: For the City Council to hold a public hearing and consider adoption of the 2015 Urban Water Management Plan.

FACTS:

1. The Public Draft 2015 Urban Water Management Plan (UWMP) has been prepared to meet requirements of the Urban Water Management Planning Act (California Water Code sections 10608-10656) and the 2009 Water Conservation Act (SB X7-7).
2. A public draft of the UWMP has been made available for review (available on PasoWater.com and in the City Library), and a Public Notice was published regarding the public hearing and plan adoption schedule.
3. The UWMP documents sources of water supply and the planned use of available supplies, estimates water demand and water use targets, documents the City's water shortage contingency plan, and describes the implementation of demand management measures needed to meet the requirements of SB X7-7.
4. The state mandated water use target for 2020 is 193 gallons per capita per day. This per capita water use equates to approximately 9,519 AFY for a population of 44,000, as projected in the City's General Plan.
5. The City has surpassed the interim water use target for 2015, which is 217 gallons per capita per day.
6. The City's water supplies include Salinas River water, Nacimiento water, and groundwater.
7. Since the last update of the Urban Water Management Plan, the City has received additional Nacimiento water entitlement, continued to implement a comprehensive water conservation program, and has maintained compliance with the California Urban Water Conservation Council's Memorandum of Understanding.

ANALYSIS & CONCLUSION: The Urban Water Management Plan helps guide the City's water resources management by documenting water use targets and demands, describing available water supplies and supply utilization, addressing water shortage contingency plans, and outlining water demand management programs.

Development of the Urban Water Management Plan has included public noticing regarding preparation of the plan and solicitation of input from local agencies and the public.

Findings include the following:

- The City has surpassed 2015 interim water use target of 217 gallons per capita per day and it projects achieving the mandated 2020 water use target of 193 gallons per capita per day through continued implementation of the City's conservation program
- Water supplies are sufficient to serve the existing community and planned future development
- The City's diverse water supplies improve overall supply reliability
- Continued implementation of conservation program activities are necessary to maintain compliance the California Urban Water Conservation Council's Memorandum of Understanding

Included with this staff report are changes to the Public Draft that will be incorporated into the final draft to address input received during the public review period.

POLICY REFERENCES: Urban Water Management Planning Act, as amended, Water Code sections 10608-10656; and Paso Robles Municipal Code Chapter 14.02 Water Conservation and Water Shortage Contingency Plan.

FISCAL IMPACT: No fiscal impact.

OPTIONS: Following the receipt of public comments on the Public Draft:

a) Adopt the 2015 Urban Water Management Plan with the proposed changes
b) Amend, modify, or postpone adoption of the 2015 UWMP
c) Other

Attachments:

1) Resolution
2) Excerpt from 2015 UWMP Public Draft
3) Summary of Proposed Changes for Final UWMP

Resolution No. 16- XXX

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES ADOPTING THE 2015 URBAN WATER MANAGEMENT PLAN

WHEREAS, the California Urban Water Management Planning Act ("Act") (California Water Code Sections 10608 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

WHEREAS, the City of Paso Robles last updated its Urban Water Management Plan in 2011; and

WHEREAS, a Public Draft 2015 Urban Water Management Plan has been prepared and circulated for public review; and all comments received have been reviewed and considered; and a properly noticed public hearing was held by the City Council on July 19, 2016, 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 Final Urban Water Management Plan, attached hereto as Exhibit A and incorporated herein by reference, is hereby adopted and ordered filed with the City Clerk;

Section 2. The Water Resources Manager is hereby authorized and directed to file this Plan with the California Department of Water Resources;

PASSED AND ADOPTED this ____ day of _____, 2016, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Steven W. Martin, Mayor

Attest:

Kristen L. Buxkemper, Deputy City Clerk

EXHIBIT A

FINAL URBAN WATER MANAGEMENT PLAN
[to be inserted]

2015 URBAN WATER MANAGEMENT PLAN

City of Paso Robles

Public Draft May 4, 2016

View Full Report

EXCERPTED

City of El Paso de Robles

2015 URBAN WATER MANAGEMENT PLAN

PUBLIC DRAFT

May 4, 2016

TODD GROUNDWATER

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

Table of Contents

Appendices

List of Figures

List of Tables

(Note: there are no DWR-required tables for Section 1 or Section 9)

EXECUTIVE SUMMARY

PURPOSE AND SCOPE

This 2015 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 – 10656) 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 2010 UWMP, accounting for changes in the California Water Code and local planning and water management efforts.

Among other things, the 2015 UWMPs are required to review the reliability of water supplies over a 20-year planning horizon and to report 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. 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 documents compliance with water use reductions required by SB X7-7.

SUMMARY

The City's water service area is generally coincident with City boundaries. The City provides water to over 10,000 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 will increase relative to single-family residential demand. The table on the next page summarizes projected population and water demands to buildout and the supplies projected to be used to meet those demands.

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. Water demand factors were based on consumption data for 2013, the most recent dry year prior to State-mandated water restrictions and year-round enforcement of the City's mandatory landscape irrigation restrictions. The buildout population of 44,000 is projected to 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.

	2020	2025	2030	2035	2040	Buildout (2045 or later)
Population	32,300	34,400	37,700	39,900	41,900	44,000
Water Demands (AFY)	7,089	7,575	8,061	8,546	9,032	9,519
Water Supply Sources to Meet Demands (AFY)						
Basin Wells	2,600	2,506	2,602	2,124	2,610	2,200
River Wells	3,100	3,500	3,800	4,558	4,558	4,558
Nacimiento Water from Water Treatment Plant	1,120	1,120	1,120	1,120	1,120	2,017
Nacimiento Water from the Recovery Well	269	269	269	269	269	269
Recycled Water for Potable Offset	0	180	270	475	475	475
Total Supply	7,089	7,575	8,061	8,546	9,032	9,519

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 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 3-4.06 (Paso Robles Groundwater Basin). The Paso Robles Groundwater Basin 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 will play a key role in carrying out the requirements of SGMA to ensure sustainable management of the Basin. The supply amounts above do not reflect the total groundwater supply (basin wells) available to the City but the water planned to supply projected demands and account for balancing and management of supplies. Utilization of basin groundwater may increase from amounts shown if shortage is experienced in other supplies.

- **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 gpm) with a maximum extraction of 4,600 AFY.

- **Nacimiento Water** – 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 City anticipates operating the plant 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 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 gallons per minute (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.

  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.

  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 is over 200,000 AFY. 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 the current drought as the project has and continues to satisfy all delivery requests from project participants.

- **Recycled Water.** The City currently does not use recycled water but is actively pursuing such use. The City's Recycled Water Master Plan (AECOM, 2014) identified the potential to provide approximately 1,530 AFY of recycled water to customers within City boundaries. Approximately 475 AFY of this supply would offset potable uses that are currently served by the City, while the remaining recycled water use in City limits would replace private well pumping for irrigation. These estimates account for blending recycled water with lower salinity water and/or groundwater to the extent needed to make it suitable for agricultural and golf course irrigation.

  Additional recycled water (up to 3,970 AFY at build-out) 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, thus offsetting groundwater pumping outside of the City. Recycled water has advantages of being very reliable and provides substantial benefits in reducing peak summer demands on the potable water system.

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) is 241 gallons per capita per day (gpcd). Four methods are provided in SB X7-7 for calculating the 2015 and 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. Under SB X7-7, the interim 2015 water use target is established as the midpoint between the baseline (241 gpcd) and the 2020 compliance target (193 gpcd), which is 217 gpcd. As further detailed in this Plan, the City has achieved remarkable success with its water conservation efforts. The City's 2015 per capita water use is 151 gpcd, which is 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.

It is anticipated that water use will increase from current levels once drought conditions cease and mandatory water use restrictions are no longer in place. While the magnitude of this rebound is uncertain, for the purposes of this UWMP, it is assumed that base water use rates without extraordinary water conservation could be similar to water use in 2013 (206 gpcd), which is still below the City's 2015 interim water use target of 217 gpcd. Future demand management measures (including both active and passive conservation, and recycled water use to offset potable demands) are anticipated to reduce water use to 193 gpcd or less by 2020.

Supply Reliability and Drought Impacts. The City has a diverse water supply portfolio that 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 Conservation and Water Shortage Contingency Plan to these private wells.

With regard to regional groundwater quality, the Salt/Nutrient Management Plan (SNMP) for the Paso Robles Groundwater Basin (RMC, 2015) indicates that overall groundwater quality is generally stable, and would be improved with additional use of Nacimiento supply. Reduction of salt loading has been a long-term goal of the City. The City has implemented use of high-quality Nacimiento supply and is pursuing the reduction of home water softener use, and implementation of an industrial waste discharge ordinance.

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. The City has relied on the Paso Robles Groundwater Basin, the Salinas River, and more recently, Nacimiento water to satisfy water demands within the City. In 2009, the City adopted a revised Water Conservation and Water Shortage Contingency Plan. Level 2 of the Plan (which imposes City-wide mandatory outdoor water use restrictions) was initiated in 2009 and remains in place at this time. These water restrictions have enabled the City to respond to multi-year drought conditions and the statewide emergency conservation requirements adopted by the State Board.

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 Water Shortage Contingency Plan, 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 20 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.

Summary of Proposed Changes for Final UWMP

The following changes are proposed to the Public Draft 2015 City of Paso Robles UWMP to update specific language to reflect UWMP activities and address recent changes to water conservation regulations and provide clarification. Additionally, correction of minor typographical errors is proposed.

Updates

- Planning Commission and Public hearing dates (pages 5-6)
- Reflect stakeholder attendance at public hearing in public coordination table on page 6
- Update description of the Emergency Order requirements (pages 10-11) to reflect the State Water Board's June 2016 adopted revised emergency regulations
- Include in Appendix A resolution of adoption of Final UWMP, proof of public hearing, and noticing

Corrections

- Address summation error on page 10 (2015 column in table will show 545 AFY rather than 508 AFY for total "Parks, Landscape Irrigation, and Other" water use)
- Correct typographical errors

Clarifications

- Addition of note to Table 6-8 clarifying that the City has acquired additional Nacimiento water entitlement in March of 2016.
- In the description of the Landscape and Irrigation System Ordinance (page 55) clarify that a subsequent ordinance permits turf in residential front and front-side yards if additional documentation is provided