

To: Water Resources Advisory Committee  
From: Dennis Loucks, District 1  
Subject: Review of Resource Summary Report 2014-2016

March 1, 2017

I received the 2014-2016 Resource Summary Report on Monday, February 27 and have had the opportunity to complete an initial review of the extensive report, encompassing 192 pages.

Clearly, County Staff completed a detailed report and I appreciate their efforts. In my review, several questions have arisen that hopefully can be addressed.

- 1) In review of Table II-19, Paso Robles Groundwater Basin Existing and Forecasted Water Supply and Demand, page 75.

What I noticed was that in the Demand Section of the table, it listed the 2015/2016 Demand (AFY) for the City of Paso Robles at 3,569 AFY. This struck me as odd, since I was under the impression that their annual water usage was in the vicinity of 6,000 AFY. As the City expands in population, the forecast demand for water in 15, 20 and 30 or more years was listed at 13,400 AFY. Considering that the population of Paso Robles is currently around 30,000 and their maximum population or buildout is estimated to be approx. 45,000, the total demand would be 5,353 AFY not 13,400 AFY.

Due to this disparity, I reviewed the City of Paso Robles 2015 Urban Water Management Plan, final report July 2016 prepared by Todd Groundwater Management.

That report indicated water demand more in keeping of my initial expectations. One of their charts, ES-2, reflected demand expectations of 7,089 AFY in 2020 and the chart projected a total demand of 9,519 AFY at total buildout in 2045 or later.

This is considerably less, 3,881 AFY less, than the forecasted amount in the county's Table II-19.

Why is there such a disparity in these numbers?

- 2) Table II-19 in the supply column indicated that the Nacimiento Project would supply 6,488 AFY. I am aware that the City of Paso Robles had contracted for roughly that amount but their treatment plant could only treat somewhere in the vicinity of 1100 AFY.

I again reviewed the City of Paso Robles 2015 Urban Water Management Plan. The chart, ES-2, indicated a supply of 1,120 AFY through 2040 with an

increase to 2,017 in 2045 or later. Further in the report, Table 6-9 provided some insight as to why the 6,488 AFY was used. That amount, 6,488 is the contract amount and is listed under the Total Right or Safe Yield (optional). The 1,120 AFY amount is listed as the Reasonably Available Volume and is used in their (City of Paso Robles) calculation for future water demand.

What is clear is that the County and the City of Paso Robles have interpreted these two numbers differently. This is confusing and hopefully can be clarified.

- 3) The City of Paso Robles 2015 Urban Water Management Plan was finalized in July 2016. According to page 6, a notice of intention to adopt the plan was sent to 13 Coordinating Agencies and the plan itself was available for review on the Paso Robles City website. They received no comments on the draft plan (with the exception of General Public comments). This seems odd in view that the City of Paso Robles overlies the basin and is a large user of water resources.

Since July 2016 has any Coordinating Agency commented on the Urban Water Management Plan?

Attachments:

1. Table II-19 Paso Robles Ground Water Basin Existing and Forecasted Water Supply and Demand
2. City of Paso Robles Chart ES-2, Demand /Supply
3. City of Paso Robles, Table 6-9, Nacimiento Supply
4. City of Paso Robles, page 6, Coordinating Agencies

**Table II-19 -- Paso Robles Groundwater Basin  
Existing and Forecasted Water Supply and Demand**

<b>Demand</b>	<b>San Miguel CSD</b>	<b>CSA 16 - Shandon</b>	<b>City of Paso Robles</b>	<b>Agriculture</b>	<b>Rural</b>
FY 2015/2016 Demand (AFY)	236.3 <sup>1</sup>	90.2 <sup>1</sup>	3,569	76,639	3,590
Forecast Demand in 15 Years (AFY)	466	578	13,400	74,353	5,438
Forecast Demand in 20 Years (AFY)	524	686	13,400	73,782	5,900
Buildout Demand (30 Or More Years) (AFY)	466-582 <sup>2</sup>	271-1,100 <sup>3</sup>	13,400	60,740-86,820	5,570-6,230
<b>Supply</b>					
Paso Robles Groundwater Basin <sup>8</sup> (AFY)					
Paso Robles Formation (AFY)	524	147	3,400	51,647	4,130
Salinas River Underflow (AFY)	0	0	4,600 <sup>10</sup>	14,756 <sup>7</sup>	1,180
Other Groundwater Sources (AFY)	0	0	0	3,689	295
State Water Project (AFY)	0	66 <sup>4</sup>	0	0	0
Nacimiento Project	0	0	6,488	0	0
SWRCB WPA 14	0	0	0	3,689	295
<b>Total Supply:</b>	<b>524</b>	<b>213</b>	<b>14,488</b>	<b>73,782</b>	<b>5,900</b>
<b>Water Supply Versus Forecast Demand</b>	Water demand projected over 15 years will equal or exceed the estimated dependable supply. <sup>5</sup>				

Sources: Water System Usage forms: July 2014 – June 2015; July 2015 – June 2016, San Luis Obispo County Master Water Report, 2012, Table 4.67

Notes:

1. See Table II-1. Current year data for agriculture and rural are from 2012.
2. Twenty (20) percent additional water conservation (beyond what has already been accomplished) assumed for the low end of the forecast buildout demand for San Miguel and 10% for Paso Robles.
3. Upper end of the range reflects demand projected in accordance with the draft Shandon Community Plan should it be approved by the Board in the future.
4. CSA 16 has an allocation of 100 AFY of State Water Project (but no drought buffer), but has not developed this supply due to high cost. State Water Project average allocation assumed 66 percent of contract water service amount, which equates to 66 AFY.
5. Including demand in the Monterey County portion of the basin, and depending on the estimated use for the Agricultural and Rural sectors and future hydrology, basin studies are indicating that the perennial yield may be exceeded in the future. The agencies, County, District, and local land owners intend to actively and cooperatively manage the groundwater basin via the development of a Groundwater Management Plan. It is possible that a future supply deficit will exist for agriculture and rural users because the forecast agricultural and rural demands, excluding demands in the Monterey County portion of the basin, exceed the basin yield. It is uncertain how much of the rural and agricultural demand is supplied by sources outside the basin.
6. It is assumed that the majority of water supply for agriculture and rural users comes from the Paso Robles Groundwater Basin.
7. SWRCB records indicate that 738 AFY could be diverted from the Salinas River (direct diversion or underflow). It is assumed that the entire amount is used for agriculture.
8. The safe yield of the Paso Robles Groundwater Basin is currently being updated
9. It was assumed that Paso Robles currently extracts one-half of its current groundwater demand and one-half of its total future groundwater demand from the Atascadero Sub-basin.
10. The City of Paso Robles is permitted to extract up to 8 cfs (3,590 gpm) with a maximum extraction of 4,600 AFY (January 1 to December 31).

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

**Table 6-9 Retail: Water Supplies — Projected**

Water Supply	Additional Detail on Water Supply	Projected Water Supply <i>Report To the Extent Practicable</i>											
		2020		2025		2030		2035		2040		Buildout (2045 or later)	
		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)	Reasonably Available Volume	Total Right or Safe Yield (optional)
<i>Add additional rows as needed</i>													
Groundwater	Basin wells in Paso Robles Groundwater Basin (3-4.06) <sup>1</sup>	2,600	90,215 AFY Perennial Yield <sup>2</sup>	2,506	90,215 AFY Perennial Yield	2,602	90,215 AFY Perennial Yield	2,124	90,215 AFY Perennial Yield	2,610	90,215 AFY Perennial Yield	2,200	90,215 AFY Perennial Yield
Surface water	Salinas River water through river wells <sup>3</sup>	3,100	4,600 AFY SWRCB Permit	3,500	4,600 AFY SWRCB Permit	3,800	4,600 AFY SWRCB Permit	4,558	4,600 AFY SWRCB Permit	4,558	4,600 AFY SWRCB Permit	4,558	4,600 AFY SWRCB Permit
Purchased or Imported Water	Nacimiento Water <sup>4</sup>	1,120	6,488 AFY Contract <sup>5</sup>	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 via Recovery Well <sup>6</sup>	269	From 6,488 AFY contract listed above	269	From 6,488 AFY contract listed above	269	From 6,488 AFY contract listed above	269	From 6,488 AFY contract listed above	269	From 6,488 AFY contract listed above	269	From 6,488 AFY contract listed above
Recycled Water	Potable Offset <sup>7</sup>	0	Recycled water not projected to offset potable uses	180	More recycled water available	270	More recycled water available	475	More recycled water available	475	More recycled water available	475	More recycled water available
<b>Total</b>		<b>7,089</b>	<b>-</b>	<b>7,575</b>	<b>-</b>	<b>8,061</b>	<b>-</b>	<b>8,546</b>	<b>-</b>	<b>9,032</b>	<b>-</b>	<b>9,519</b>	<b>-</b>

**NOTES:**

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.

1. Basin Wells: Reasonably Available Volumes: Amounts listed are water planned to supply projected demand and account for balancing and management of available supplies. Pumping could increase if shortage is experienced in other supplies.
2. Basin Wells: Total Right or Safe Yield: 90,215 AFY from Geoscience, 2015.
3. Salinas River Wells: Amounts listed are amounts of water needed to supply projected demands and account for balancing of available supplies. 4,558 AFY is the historical maximum pumping.
4. Nacimiento Water Reasonably Available: For 2016-2040, the 2.4 mgd Nacimiento Water Treatment Plant is assumed to be operating 5 months/year and for 2045 and later, the plant is assumed to be operating 9 months/year. The imported water amounts in the table are comprised of Nacimiento WTP amounts plus amount of Nacimiento water pumped by the recovery well.
5. Nacimiento Water Total Right: Amount shown is total raw water supply available to City, not total potable water available, which is limited by treatment capacity.
6. Recovery well amount assumes 400 gpm operating 5 months/year.
7. Recycled water amount is based on Recycled Water Master Plan estimate of maximum potable water offset at buildout within City. See Table 6.4 for additional recycled use in lieu of in-City private pumping.

County and certain private landowners. The City is also working actively with local agencies to move forward with the Sustainable Groundwater Management Act.

<b>Coordinating Agencies</b>	<b>Sent Notice of Intention to Adopt the Plan</b>	<b>Provided Draft Plan</b>	<b>Commented on the Draft Plan</b>	<b>Attended Public Meetings</b>
San Luis Obispo County Public Works Department	Yes	Via City Website	No	No
California Regional Water Quality Control Board	Yes	Via City Website	No	No
Atascadero Mutual Water Company	Yes	Via City Website	No	No
City of Atascadero	Yes	Via City Website	No	No
Templeton Community Services District	Yes	Via City Website	No	No
San Miguel Community Services District	Yes	Via City Website	No	No
Paso Robles Public Library	Yes	Hard Copy	No	No
Paso Robles Chamber of Commerce	Yes	Via City Website	No	No
Paso Robles Imperiled Overlying Rights (PRIOR)	Letter returned – unknown address	-	No	No
Paso Robles Agricultural Alliance for Groundwater Solutions (PRAAGS)	Yes	Via City Website	No	No
Pro Water Equity	Yes	Via City Website	No	No
Home Builders Association	Yes	Via City Website	No	No
General Public	Posted to City Website	Via City Website	Yes	Yes