

Summary of Annual Groundwater Budgets for the Recalibrated Paso Robles Groundwater Basin Model (1981-2011)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
	INFLOW						OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Total Inflow	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	Evapotranspiration by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	Total Outflow	
[acre-ft]						[acre-ft]								[acre-ft]	
1981	10,435	28,501	24,151	4,047	225	67,359	110,560	7,220	1,984	2,164	3,453	8,361	1,743	135,483	-68,124
1982	14,015	35,706	35,207	4,132	227	89,286	98,375	7,201	2,030	1,930	3,453	10,670	1,746	125,404	-36,119
1983	47,777	135,219	47,320	4,217	233	234,766	92,265	7,432	2,076	1,872	3,453	17,643	1,890	126,631	108,135
1984	7,432	17,802	13,234	4,302	273	43,043	107,514	9,346	2,124	2,218	3,453	16,630	1,796	143,081	-100,038
1985	6,738	11,301	10,223	4,388	276	32,927	98,218	9,436	2,173	2,167	3,453	13,457	1,690	130,593	-97,666
1986	26,394	75,711	47,237	4,474	287	154,104	87,829	9,882	2,223	2,080	3,453	14,330	1,716	121,513	32,591
1987	6,312	8,873	7,477	4,561	305	27,528	90,797	10,692	2,274	2,204	3,453	12,635	1,645	123,701	-96,173
1988	7,811	19,455	15,743	4,648	314	47,971	81,775	11,032	2,326	2,050	3,453	11,123	1,623	113,383	-65,412
1989	7,756	13,603	14,050	4,735	321	40,465	83,752	11,336	2,380	2,153	3,453	10,051	1,598	114,723	-74,257
1990	6,208	6,717	5,547	4,806	313	23,591	83,069	10,834	2,435	2,253	3,453	8,718	1,570	112,332	-88,741
1991	22,726	26,421	38,327	5,018	306	92,797	72,647	10,267	2,491	2,252	3,453	8,364	1,488	100,961	-8,164
1992	21,412	19,518	35,454	5,136	323	81,843	69,792	11,008	2,548	2,175	3,453	9,076	1,432	99,484	-17,641
1993	66,778	142,397	45,783	5,254	330	260,542	63,309	11,224	2,607	2,166	3,453	12,141	1,571	96,470	164,072
1994	11,650	17,974	6,234	5,253	339	41,450	62,607	11,689	2,667	2,114	3,453	12,281	1,501	96,311	-54,861
1995	67,456	183,967	45,204	5,502	327	302,456	55,364	10,860	2,728	2,106	3,453	15,882	1,623	92,016	210,440
1996	21,219	24,541	39,608	5,130	351	90,848	54,926	12,420	2,791	2,186	3,453	17,370	1,599	94,745	-3,896
1997	40,117	78,151	44,575	5,647	377	168,867	50,599	13,183	2,855	2,250	3,453	17,573	1,638	91,550	77,317
1998	57,998	169,334	43,618	5,848	346	277,145	47,832	11,455	2,921	1,990	3,453	20,973	1,701	90,324	186,821
1999	6,232	9,790	5,867	5,563	369	27,821	63,149	12,901	2,988	2,131	3,453	19,948	1,557	106,127	-78,306
2000	14,767	18,812	31,501	5,671	398	71,149	63,816	14,230	3,057	2,211	3,453	16,797	1,478	105,042	-33,892
2001	19,036	57,445	39,518	6,108	408	122,516	68,161	14,310	3,127	2,177	3,453	16,569	1,435	109,232	13,285
2002	6,991	6,249	5,881	6,291	434	25,845	76,724	15,398	3,199	2,289	3,453	14,529	1,381	116,974	-91,129
2003	12,617	42,451	20,173	6,331	435	82,008	67,603	15,441	3,273	2,172	3,453	13,586	1,349	106,876	-24,868
2004	6,822	16,559	5,750	6,393	460	35,983	80,032	16,600	3,348	2,396	3,453	11,966	1,321	119,116	-83,133
2005	76,967	168,918	43,981	6,573	414	296,854	59,824	14,137	3,425	2,112	3,453	17,193	1,475	101,620	195,234
2006	23,395	23,596	33,141	6,660	443	87,236	66,057	15,506	3,504	2,306	3,453	18,420	1,387	110,633	-23,397
2007	3,783	6,628	4,743	6,569	461	22,184	91,734	16,473	3,585	2,421	3,453	15,346	1,473	134,485	-112,301
2008	20,526	65,343	51,633	6,801	459	144,763	83,706	16,138	3,667	2,389	3,453	15,774	1,643	126,770	17,992
2009	6,208	46,536	6,639	6,517	417	66,316	89,704	14,310	3,752	2,272	3,453	14,270	1,627	129,387	-63,071
2010	34,814	108,216	38,014	6,733	401	188,178	70,414	13,319	3,838	2,114	3,453	15,323	1,695	110,156	78,022
2011	37,368	56,125	39,948	6,793	398	140,633	60,285	13,119	3,765	2,104	3,453	17,634	1,711	102,071	38,562

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	INFLOW						OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Total Inflow	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	Evapotranspiration by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	Total Outflow	
[acre-ft]						[acre-ft]								[acre-ft]	
Average of 1981 to 1997	23,073	49,756	27,963	4,779	302	105,873	80,200	10,298	2,395	2,138	3,453	12,724	1,639	112,846	-6,973
Average of 1998 to 2011	23,395	56,857	26,458	6,347	417	113,474	70,646	14,524	3,389	2,220	3,453	16,309	1,517	112,058	1,416
Average of 1981 to 2011	23,218	52,963	27,283	5,487	354	109,306	75,885	12,206	2,844	2,175	3,453	14,343	1,584	112,490	-3,184
Average of 1982 to 2010	23,171	53,698	26,955	5,492	357	109,672	75,227	12,347	2,842	2,178	3,453	14,436	1,574	112,057	-2,385

- [1] Groundwater model input: calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater model input: Calculated based on the results of streambed seepage within the Paso Robles Basin from the calibrated watershed model.
- [3] Groundwater model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater model input: Based on measured data provided by City of Atascadero Public Works Department, Camp Roberts, City of Paso Robles and San Miguel CSD. Templeton CSD provided an average daily flow rate. Wastewater discharge in septic tank by rural residences and small community was included and was assumed to be the amount of indoor use.
- [5] Groundwater model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 Urban Master Plan.
- [6] = [1] + [2] + [3] + [4] + [5]
- [7] Groundwater model input: Based on results of crop-specific daily soil moisture water balances accounting for soil available water capacity, daily rainfall and reference evapotranspiration, crop water coefficient, bare soil evaporation, and increasing irrigation efficiency over time. Additional factors considered for vineyards include evapotranspiration of row crops, frost protection water demand and effect on soil moisture, reduced deficit irrigation (RDI) management, and increasing use of RDI management over time. Annual crop acreages estimated from 1) DWR land use maps of South Central Coast (San Luis Obispo County) and Monterey County for 1985/89 and 1996/97, 2) digital SLO crop coverage maps provided by SLO County ACO from 2000 through 2011, and 3) digital coverage of Monterey County 2012 crops based on Ranch Map Atlas (Monterey County ACO). Discussions with SLO County ACO on historical regional crop patterns used to refine interpolation of selected crop acreages over time. Vineyard acreages within groundwater basin boundaries from 2000 to 2010 were corrected/verified based on review of historical aerial photography provided in Google Earth.
- [8] Groundwater model input: Based largely on monthly municipal pumping records for production wells; minor data gaps addressed with estimates from comparable months.
- [9] Groundwater model input: Private domestic well groundwater pumping represents indoor demand plus outdoor consumptive use by rural residential parcels (water demand of parcels serviced by small community water systems included). Indoor demand rate of 0.29 AFY per parcel estimated based on evaluation of available production records of three small communities (Shandon, Garden Farms, and Green River). 100% return flow assumed. Net outdoor consumptive usage rate of 0.46 AFY per parcel estimated based on 1) mapping of outdoor irrigated landscaping within five selected residential communities across Study Area and 2) calibration to available production of Shandon, Garden Farms, and Green River communities. 100% outdoor irrigation efficiency assumed. Usage rate applied to occupied rural residential parcels, identified for 2012 conditions by SLO County Planning Department. Estimated 2.25% growth rate applied to estimate historical rural demand/consumptive use.
- [10] Groundwater model input: Includes Atascadero State Hospital, Camp Roberts and the Youth Authority; limited monthly pumping data for each were averaged and used to represent the entire period for which each has operated. Includes winery water consumption based on an applied rate and return flow factor. Includes consumptive use of five golf courses; data were used when available, and monthly average estimates were used based on the difference between monthly ET for turf and monthly rainfall. Other small commercial (schools, rest stops) is based on application of water use rates; may include some gross pumping values (not consumption).
- [11] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone. Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [12] Calculated based on the results from the re-calibrated groundwater model.
- [13] Calculated based on the results from the re-calibrated groundwater model.
- [14] = [7] + [8] + [9] + [10] + [11] + [12] + [13]
- [15] = [6] - [14]

Baseline Run Assumptions for Nacimiento Water Project and Municipal Treated Wastewater Supplies (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
	Nacimiento Water Supplies*			Treated Wastewater Supplies					
	Templeton CSD (T4)	Atascadero MWC (T6)	TOTAL NACIMIENTO WATER SUPPLIES	City of Paso Robles WWTP	San Miguel CSD WWTP	Templeton CSD WWTP	City of Atascadero WWTP	Camp Roberts WWTP	TOTAL WASTEWATER SUPPLIES
	Discharge to Existing Percolation Ponds	Discharge to Existing Percolation Ponds							
[acre-ft]			[acre-ft]						
2012	233	1,072	1,305	3,725	531	566	2,004	177	7,003
2013	138	1,824	1,962	3,762	537	571	2,024	179	7,073
2014	183	705	888	3,800	542	577	2,044	181	7,144
2015	226	2,711	2,937	3,838	548	583	2,065	183	7,216
2016	250	2,000	2,250	3,876	553	589	2,085	185	7,288
2017	260	2,000	2,260	3,915	559	594	2,106	186	7,361
2018	271	2,000	2,271	3,954	564	600	2,127	188	7,434
2019	281	0	281	3,994	570	606	2,148	190	7,508
2020	292	0	292	4,034	575	612	2,170	192	7,584
2021	302	2,000	2,302	4,074	581	619	2,192	194	7,659
2022	312	2,000	2,312	4,115	587	625	2,214	196	7,736
2023	323	2,000	2,323	4,156	593	631	2,236	198	7,813
2024	333	0	333	4,197	599	637	2,258	200	7,892
2025	344	2,000	2,344	3,809	605	644	2,281	202	7,540
2026	354	0	354	3,852	611	650	2,303	204	7,620
2027	364	0	364	3,895	617	657	2,326	206	7,701
2028	375	0	375	3,938	623	663	2,350	208	7,782
2029	385	0	385	3,982	629	670	2,373	210	7,864
2030	406	0	406	4,026	636	676	2,397	212	7,947
2031	406	0	406	4,070	642	683	2,421	214	8,031
2032	406	0	406	4,115	648	690	2,445	217	8,115
2033	406	0	406	4,161	655	697	2,470	219	8,201
2034	406	0	406	4,207	662	704	2,494	221	8,287
2035	406	2,000	2,406	4,253	668	711	2,519	223	8,374
2036	406	0	406	4,300	675	718	2,544	225	8,462
2037	406	0	406	4,347	682	725	2,570	228	8,551
2038	406	0	406	4,395	688	733	2,596	230	8,641
2039	406	2,000	2,406	4,443	695	740	2,622	232	8,732
2040	406	2,000	2,406	4,492	702	747	2,648	234	8,823

Baseline Run Assumptions for Nacimiento Water Project and Municipal Treated Wastewater Supplies (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
	Nacimiento Water Supplies*			Treated Wastewater Supplies					
	Templeton CSD (T4)	Atascadero MWC (T6)	TOTAL NACIMIENTO WATER SUPPLIES	City of Paso Robles WWTP	San Miguel CSD WWTP	Templeton CSD WWTP	City of Atascadero WWTP	Camp Roberts WWTP	TOTAL WASTEWATER SUPPLIES
	Discharge to Existing Percolation Ponds	Discharge to Existing Percolation Ponds		[acre-ft]					
Average	334	907	1,241	4,059	613	652	2,311	205	7,840

Notes:

Dry Years are based on measured precipitation at Paso Robles Station 046730 (Water Years 1982-2010).

* The City of Paso Robles utilizes Nacimiento Water Project (NWP) supplies in three ways: 1) Treated at its water treatment plant for direct delivery; 2) Turned into the Salinas River channel and recovered through a specially designed well; and 3) In times of drought, used to augment surface water supplies to maintain productivity of the City's river wells. For 2012-2040, assumes that NWP water turned to the river is completely captured by the City's dedicated NWP recovery well; therefore, for modeling purposes this water is not included as a basin inflow.

[1] Based on projected data provided by Templeton Community Services District (22-Feb-16). This amount of water is modeled as inflow through existing percolation ponds.

[2] Based on projected data provided by Atascadero Mutual Water Company (22-Feb-16). This amount of water is modeled as inflow through AMWC's NWP recharge basin.

[3] = [1] + [2]

[4] Based on measured data for water year 2011 and assumed 1% annual growth. This amount of water is modeled as inflow through existing percolation ponds.

For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).

[5] Based on measured data for water year 2011 and assumed 1% annual growth. This amount of water is modeled as inflow through existing percolation ponds.

[6] Based on measured data for water year 2011 and assumed 1% annual growth. This amount of water is modeled as inflow through existing percolation ponds.

[7] Based on measured data for water year 2011 and assumed 1% annual growth. This amount of water is modeled as inflow through existing percolation ponds.

[8] Based on measured data for water year 2011 and assumed 1% annual growth. This amount of water is modeled as inflow through existing percolation ponds.

[9] = [4] + [5] + [6] + [7] + [8]

Municipal Pumping Assumptions for Updated Baseline (2012-2040)

Water Year	Atascadero MWC Total	City of Paso Robles				City of Paso Robles Total	San Miguel CSD Total	Templeton CSD Total	TOTAL MUNICIPAL PUMPING
		River Wells ¹		Basin Wells ²	Estrella Sub-area		Estrella Sub-area	Atascadero Sub-basin	
		Atascadero Sub-basin	Estrella Sub-area						
[acre-ft]									
2012	5,424	2,631	460	2,448	5,539	92	2,175	13,229	
2013	5,478	2,668	460	2,445	5,573	93	2,197	13,340	
2014	5,533	2,704	460	2,443	5,606	94	2,219	13,451	
2015	5,588	2,740	460	2,440	5,640	95	2,241	13,564	
2016	5,644	2,787	460	2,450	5,696	96	2,263	13,699	
2017	5,700	2,833	460	2,460	5,753	97	2,286	13,836	
2018	5,757	2,880	460	2,469	5,809	98	2,309	13,973	
2019	5,815	2,926	460	2,479	5,866	99	2,332	14,111	
2020	5,873	2,973	460	2,489	5,922	100	2,355	14,250	
2021	5,932	3,020	460	2,413	5,893	101	2,379	14,304	
2022	5,991	3,067	460	2,337	5,863	102	2,403	14,358	
2023	6,051	3,113	460	2,260	5,834	103	2,427	14,414	
2024	6,111	3,160	460	2,184	5,804	104	2,451	14,470	
2025	6,172	3,207	460	2,108	5,775	105	2,475	14,527	
2026	6,234	3,254	460	2,118	5,832	106	2,500	14,672	
2027	6,297	3,300	460	2,128	5,888	107	2,525	14,817	
2028	6,359	3,347	460	2,138	5,945	108	2,550	14,962	
2029	6,423	3,393	460	2,148	6,001	109	2,576	15,109	
2030	6,487	3,440	460	2,158	6,058	110	2,602	15,257	
2031	6,552	3,487	460	2,168	6,114	111	2,628	15,405	
2032	6,618	3,533	460	2,178	6,171	112	2,654	15,555	
2033	6,684	3,580	460	2,187	6,227	113	2,680	15,705	
2034	6,751	3,626	460	2,197	6,284	114	2,707	15,856	
2035	6,818	3,673	460	2,207	6,340	116	2,734	16,008	
2036	6,886	3,720	460	2,217	6,397	117	2,762	16,161	
2037	6,955	3,767	460	2,227	6,453	118	2,789	16,316	
2038	7,025	3,813	460	2,236	6,510	119	2,817	16,471	
2039	7,095	3,860	460	2,246	6,566	120	2,845	16,627	
2040	7,166	3,907	460	2,256	6,623	122	2,874	16,784	
Average	6,256	3,255	460	2,284	5,999	106	2,509	14,870	

Notes:

¹ River wells, which does not include the City's dedicated NWP recovery well, pump from Model Layer 1.

² Basin wells pump from Model Layer 3 and/or Layer 4.

Assumptions for Agricultural Pumping and Municipal Pumping Reduction for Alternative 1 (2012-2040)

Water Year	Municipal Pumping Estrella Sub-area				Agricultural Pumping									TOTAL REDUCED PUMPING [acre-ft]			
	Estrella Sub-area				Creston Sub-area			San Juan Sub-area									
	Updated Baseline [acre-ft]	Alternative 1 Reduced Pumping Subtotal %	Alternative 1 Pumping Subtotal [acre-ft]	Alternative 1 Pumping Subtotal [acre-ft]	Updated Baseline [acre-ft]	Alternative 1 Reduced Pumping Subtotal %	Alternative 1 Pumping Subtotal [acre-ft]	Updated Baseline [acre-ft]	Alternative 1 Reduced Pumping Subtotal %	Alternative 1 Pumping Subtotal [acre-ft]	Updated Baseline [acre-ft]	Alternative 1 Reduced Pumping Subtotal %	Alternative 1 Pumping Subtotal [acre-ft]				
2012	2,999	65%	1,950	1,050	29,005	65%	18,853	10,152	12,469	25%	3,117	9,352	7,996	40%	3,198	4,797	27,118
2013	2,998	65%	1,949	1,049	28,597	65%	18,588	10,009	12,477	25%	3,119	9,358	7,019	40%	2,807	4,211	26,464
2014	2,996	65%	1,948	1,049	39,701	65%	25,805	13,895	16,239	25%	4,060	12,179	9,186	40%	3,675	5,512	35,487
2015	2,995	65%	1,947	1,048	35,538	65%	23,100	12,438	14,768	25%	3,692	11,076	8,720	40%	3,488	5,232	32,226
2016	3,006	65%	1,954	1,052	31,793	65%	20,665	11,127	14,020	25%	3,505	10,515	7,400	40%	2,960	4,440	29,084
2017	3,016	65%	1,961	1,056	38,646	65%	25,120	13,526	16,254	25%	4,064	12,191	10,060	40%	4,024	6,036	35,168
2018	3,027	65%	1,968	1,059	33,384	65%	21,700	11,685	14,689	25%	3,672	11,017	9,236	40%	3,695	5,542	31,034
2019	3,038	65%	1,975	1,063	39,601	65%	25,740	13,860	16,308	25%	4,077	12,231	10,279	40%	4,112	6,167	35,904
2020	3,049	65%	1,982	1,067	43,042	65%	27,977	15,065	17,126	25%	4,281	12,844	11,203	40%	4,481	6,722	38,721
2021	2,973	65%	1,933	1,041	40,162	65%	26,105	14,057	17,564	25%	4,391	13,173	9,793	40%	3,917	5,876	36,346
2022	2,898	65%	1,884	1,014	37,896	65%	24,633	13,264	16,870	25%	4,217	12,652	9,737	40%	3,895	5,842	34,629
2023	2,823	65%	1,835	988	35,049	65%	22,782	12,267	15,768	25%	3,942	11,826	8,946	40%	3,578	5,368	32,137
2024	2,748	65%	1,786	962	38,481	65%	25,013	13,468	15,817	25%	3,954	11,862	10,056	40%	4,022	6,033	34,775
2025	2,673	65%	1,737	935	32,732	65%	21,276	11,456	14,819	25%	3,705	11,115	8,583	40%	3,433	5,150	30,151
2026	2,684	65%	1,744	939	38,453	65%	24,994	13,458	16,939	25%	4,235	12,704	9,774	40%	3,910	5,864	34,883
2027	2,695	65%	1,752	943	39,154	65%	25,450	13,704	17,787	25%	4,447	13,340	9,402	40%	3,761	5,641	35,409
2028	2,706	65%	1,759	947	33,702	65%	21,906	11,796	14,743	25%	3,686	11,057	8,511	40%	3,404	5,107	30,755
2029	2,717	65%	1,766	951	45,985	65%	29,891	16,095	17,838	25%	4,460	13,379	11,436	40%	4,574	6,861	40,690
2030	2,728	65%	1,773	955	40,725	65%	26,471	14,254	17,722	25%	4,431	13,292	10,370	40%	4,148	6,222	36,823
2031	2,739	65%	1,780	959	41,068	65%	26,694	14,374	17,726	25%	4,432	13,295	9,898	40%	3,959	5,939	36,865
2032	2,750	65%	1,787	962	43,431	65%	28,230	15,201	17,379	25%	4,345	13,034	10,893	40%	4,357	6,536	38,719
2033	2,761	65%	1,794	966	37,325	65%	24,261	13,064	16,078	25%	4,019	12,058	9,989	40%	3,995	5,993	34,070
2034	2,772	65%	1,802	970	44,095	65%	28,662	15,433	17,941	25%	4,485	13,456	11,523	40%	4,609	6,914	39,558
2035	2,783	65%	1,809	974	33,350	65%	21,677	11,672	14,731	25%	3,683	11,048	8,280	40%	3,312	4,968	30,481
2036	2,794	65%	1,816	978	38,548	65%	25,056	13,492	16,557	25%	4,139	12,418	9,989	40%	3,996	5,994	35,007
2037	2,805	65%	1,823	982	50,623	65%	32,905	17,718	20,086	25%	5,021	15,064	12,355	40%	4,942	7,413	44,692
2038	2,816	65%	1,830	985	46,344	65%	30,123	16,220	20,132	25%	5,033	15,099	11,024	40%	4,410	6,615	41,396
2039	2,827	65%	1,837	989	50,446	65%	32,790	17,656	20,213	25%	5,053	15,160	12,564	40%	5,026	7,539	44,706
2040	2,838	65%	1,844	993	38,166	65%	24,808	13,358	16,360	25%	4,090	12,270	9,215	40%	3,686	5,529	34,428

Assumptions for Agricultural Pumping and Municipal Pumping Reduction for Alternative 1 (2012-2040)

Water Year	Municipal Pumping Estrella Sub-area				Agricultural Pumping									TOTAL REDUCED PUMPING			
	Estrella Sub-area				Creston Sub-area			San Juan Sub-area									
	Updated Baseline	Alternative 1 Reduced Pumping Subtotal	Alternative 1 Pumping Subtotal	Alternative 1 Pumping Subtotal	Updated Baseline	Alternative 1 Reduced Pumping Subtotal	Alternative 1 Pumping Subtotal	Updated Baseline	Alternative 1 Reduced Pumping Subtotal	Alternative 1 Pumping Subtotal	Updated Baseline	Alternative 1 Reduced Pumping Subtotal	Alternative 1 Pumping Subtotal				
[acre-ft]	%	[acre-ft]	[acre-ft]	[acre-ft]	%	[acre-ft]	[acre-ft]	[acre-ft]	%	[acre-ft]	[acre-ft]	[acre-ft]	%	[acre-ft]	[acre-ft]	[acre-ft]	
Average	2,850	65%	1,852	997	38,795	65%	25,216	13,578	16,463	25%	4,116	12,347	9,774	40%	3,909	5,864	35,094

Notes:

- [1] Estimated combined total municipal pumping by City of Paso Robles and San Miguel CSD (see Table 3).
- [2] Minimum percent reduction in pumping required for Alternative 1.
- [3] = [1] * ([2]/100)
- [4] = [1] - [3]
- [5] Based on calculated water demands for water years 2012 through 2040 under baseline conditions (see column 8 in Table 11).
- [6] Minimum percent reduction in pumping required for Alternative 1.
- [7] = [5] * ([6]/100)
- [8] = [5] - [7]
- [9] Based on calculated water demands for water years 2012 through 2040 under baseline conditions (see column 8 in Table 11).
- [10] Minimum percent reduction in pumping required for Alternative 1.
- [11] = [9] * ([10]/100)
- [12] = [9] - [11]
- [13] Based on calculated water demands for water years 2012 through 2040 under baseline conditions (see column 8 in Table 11).
- [14] Minimum percent reduction in pumping required for Alternative 1.
- [15] = [13] * ([14]/100)
- [16] = [13] - [15]
- [17] = [3] + [7] + [11] + [15]

Assumptions for Nacimiento Water Project Supplies - Alternatives 2A and 2B

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Water Year	Nacimiento Water Project for Percolation Basin 2A (Alternatives 2A and 2B)			Nacimiento Water Project for Percolation Basin 2B (Alternative 2B)					
	Atascadero MWC			City of Paso Robles*					
	Projected NWP Use	NWP Allocation	NWP Used for Recharge	Treatment at WTP	Discharge to Salinas River	Additional Discharge to Salinas River in Dry Years	Total Projected NWP Use	NWP Allocation	NWP Used for Recharge
	[acre-ft]			[acre-ft]					
2012	1,072	2,000	928	0	0	0	0	4,000	4,000
2013	1,824	2,000	176	0	644	0	644	4,000	3,356
2014	705	2,000	1,295	0	326	2,990	3,316	4,000	684
2015	2,711	2,000	0	1,120	810	2,990	4,920	4,000	0
2016	2,000	3,244	1,244	1,150	810	0	1,960	6,488	4,528
2017	2,000	3,244	1,244	1,180	810	2,990	4,980	6,488	1,508
2018	2,000	3,244	1,244	1,210	810	0	2,020	6,488	4,468
2019	0	3,244	3,244	1,240	810	2,990	5,040	6,488	1,448
2020	0	3,244	3,244	1,270	810	2,990	5,070	6,488	1,418
2021	2,000	3,244	1,244	1,300	810	0	2,110	6,488	4,378
2022	2,000	3,244	1,244	1,330	810	0	2,140	6,488	4,348
2023	2,000	3,244	1,244	1,360	810	0	2,170	6,488	4,318
2024	0	3,244	3,244	1,390	810	2,990	5,190	6,488	1,298
2025	2,000	3,244	1,244	1,420	810	0	2,230	6,488	4,258
2026	0	3,244	3,244	1,450	810	0	2,260	6,488	4,228
2027	0	3,244	3,244	1,480	810	0	2,290	6,488	4,198
2028	0	3,244	3,244	1,510	810	0	2,320	6,488	4,168
2029	0	3,244	3,244	1,540	810	2,990	5,340	6,488	1,148
2030	0	3,244	3,244	1,570	810	0	2,380	6,488	4,108
2031	0	3,244	3,244	1,600	810	0	2,410	6,488	4,078
2032	0	3,244	3,244	1,630	810	2,990	5,430	6,488	1,058
2033	0	3,244	3,244	1,660	810	0	2,470	6,488	4,018
2034	0	3,244	3,244	1,690	810	2,990	5,490	6,488	998
2035	2,000	3,244	1,244	1,720	810	0	2,530	6,488	3,958
2036	0	3,244	3,244	1,750	810	0	2,560	6,488	3,928
2037	0	3,244	3,244	1,780	810	2,990	5,580	6,488	908
2038	0	3,244	3,244	1,810	810	0	2,620	6,488	3,868

Assumptions for Nacimiento Water Project Supplies - Alternatives 2A and 2B

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Water Year	Nacimiento Water Project for Percolation Basin 2A (Alternatives 2A and 2B)			Nacimiento Water Project for Percolation Basin 2B (Alternative 2B)					
	Atascadero MWC			City of Paso Robles*					
	Projected NWP Use	NWP Allocation	NWP Used for Recharge	Treatment at WTP	Discharge to Salinas River	Additional Discharge to Salinas River in Dry Years	Total Projected NWP Use	NWP Allocation	NWP Used for Recharge
	[acre-ft]			[acre-ft]					
2039	2,000	3,244	1,244	1,840	810	2,990	5,640	6,488	848
2040	2,000	3,244	1,244	1,870	810	0	2,680	6,488	3,808
Average	930	3,037	2,190	1,243	749	1,121	3,234	6,073	2,942

Notes:

* The City of Paso Robles utilizes Nacimiento Water Project (NWP) supplies in three ways: 1) Treated at its water treatment plant for direct delivery; 2) Turned into the Salinas River channel and recovered through a specially designed well; and 3) In times of drought, used to augment surface water supplies to maintain productivity of the City's river wells.

[1] Projected use of NWP supplies provided by AMWC.

[2] Current annual NWP allocation for AMWC.

[3] = [2] - [1]. Discharged into existing AMWC 1.7 acre percolation basin (see Figure 33).

[4] For 2012-2040, assumes NWP supplies delivered to City of Paso Robles WTP.

[5] For 2012-2040, assumes NWP supplies discharged into the Salinas River near turnout (T2) and captured by the City of Paso Robles' dedicated NWP recovery well, plus contributes to underflow.

[6] For dry years (see Table 2) in 2012-2040, assumes NWP supplies discharged into Salinas River near turnout (T2).

[7] = [4] + [5] + [6]

[8] Current annual NWP allocation for City of Paso Robles.

[9] = [8] - [7]. Discharged into proposed new 90-acre percolation basin (see Figure 33).

Assumptions for Recycled Water Supplies to Offset Agricultural Pumping - Alternative 3

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]
	City of Paso Robles WWTP			Available Recycled Water to Offset Agricultural Pumping	Agricultural Pumping within Selected Area	Recycled Water Used to Offset Ag Pumping	Recycled Water Offsetting Percentage
	Recycled Water for Direct Use	Discharge to River	TOTAL				
[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	
2012	0	3,725	3,725	3,725	8,758	3,725	43%
2013	0	3,762	3,762	3,762	7,709	3,762	49%
2014	0	3,800	3,800	3,800	11,071	3,800	34%
2015	0	3,838	3,838	3,838	9,940	3,838	39%
2016	0	3,876	3,876	3,876	8,547	3,876	45%
2017	0	3,915	3,915	3,915	10,208	3,915	38%
2018	0	3,954	3,954	3,954	8,632	3,954	46%
2019	0	3,994	3,994	3,994	10,438	3,994	38%
2020	0	4,034	4,034	4,034	11,526	4,034	35%
2021	0	4,074	4,074	4,074	10,612	4,074	38%
2022	0	4,115	4,115	4,115	9,877	4,115	42%
2023	0	4,156	4,156	4,156	8,804	4,156	47%
2024	0	4,197	4,197	4,197	9,902	4,197	42%
2025	430	3,809	4,239	3,809	8,206	3,809	46%
2026	430	3,852	4,282	3,852	9,920	3,852	39%
2027	430	3,895	4,325	3,895	10,060	3,895	39%
2028	430	3,938	4,368	3,938	8,699	3,938	45%
2029	430	3,982	4,412	3,982	12,293	3,982	32%
2030	430	4,026	4,456	4,026	10,769	4,026	37%
2031	430	4,070	4,500	4,070	10,794	4,070	38%
2032	430	4,115	4,545	4,115	11,504	4,115	36%
2033	430	4,161	4,591	4,161	9,847	4,161	42%
2034	430	4,207	4,637	4,207	11,778	4,207	36%
2035	430	4,253	4,683	4,253	8,736	4,253	49%
2036	430	4,300	4,730	4,300	10,246	4,300	42%
2037	430	4,347	4,777	4,347	13,657	4,347	32%
2038	430	4,395	4,825	4,395	12,250	4,395	36%
2039	430	4,443	4,873	4,443	13,518	4,443	33%

Assumptions for Recycled Water Supplies to Offset Agricultural Pumping - Alternative 3

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]
	City of Paso Robles WWTP			Available Recycled Water to Offset Agricultural Pumping	Agricultural Pumping within Selected Area	Recycled Water Used to Offset Ag Pumping	Recycled Water Offsetting Percentage
	Recycled Water for Direct Use	Discharge to River	TOTAL				
[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	
2040	430	4,492	4,922	4,492	10,097	4,492	44%
Average	237	4,059	4,297	4,059	10,290	4,059	39%
Maximum Recycled Water Offsetting Percentage					/	/	49%
Minimum Recycled Water Offsetting Percentage							32%

Notes:

[1] For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).

[2] Treated wastewater is released from the City of Paso Robles WWTP via a series of percolation ponds into the Salinas River system.

[3] = [1] + [2]

[4] = [3] - [1]

[5] The selected area to offset agricultural pumping is provided on Figure 34.

[6] = [4]

[7] = [6]/[5]

Assumptions for Recycled Water Supplies and Nacimiento Water Project Supplies - Alternatives 4A and 4B

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
	Recycled Water to Offset Agricultural Pumping (Alternatives 4A and 4B)							Nacimiento Project Water for Percolation Basin 4A (Alternatives 4A and 4B)			Nacimiento Project Water for Percolation Basin 4B (Alternative 4B)		
	City of Paso Robles WWTP			Available Recycled Water to Offset Agricultural Pumping	Agricultural Pumping within Selected Area	Recycled Water Used to Offset Ag Pumping	Recycled Water Offsetting Percentage	New Percolation Basin Area	New Percolation Basin Infiltration Rate	Nacimiento Project Water Used for Percolation	New Percolation Basin Area	New Percolation Basin Infiltration Rate	Nacimiento Project Water Used for Percolation
	Recycled Water for Direct Use	Discharge to River	TOTAL										
[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre]	[ft/day]	[acre-ft]	[acre]	[ft/day]	[acre-ft]		
2012	0	3,725	3,725	3,725	8,758	3,725	43%	90	0.5	16,436	30	0.5	5,479
2013	0	3,762	3,762	3,762	7,709	3,762	49%	90	0.5	16,436	30	0.5	5,479
2014	0	3,800	3,800	3,800	11,071	3,800	34%	90	0.5	16,436	30	0.5	5,479
2015	0	3,838	3,838	3,838	9,940	3,838	39%	90	0.5	16,436	30	0.5	5,479
2016	0	3,876	3,876	3,876	8,547	3,876	45%	90	0.5	16,436	30	0.5	5,479
2017	0	3,915	3,915	3,915	10,208	3,915	38%	90	0.5	16,436	30	0.5	5,479
2018	0	3,954	3,954	3,954	8,632	3,954	46%	90	0.5	16,436	30	0.5	5,479
2019	0	3,994	3,994	3,994	10,438	3,994	38%	90	0.5	16,436	30	0.5	5,479
2020	0	4,034	4,034	4,034	11,526	4,034	35%	90	0.5	16,436	30	0.5	5,479
2021	0	4,074	4,074	4,074	10,612	4,074	38%	90	0.5	16,436	30	0.5	5,479
2022	0	4,115	4,115	4,115	9,877	4,115	42%	90	0.5	16,436	30	0.5	5,479
2023	0	4,156	4,156	4,156	8,804	4,156	47%	90	0.5	16,436	30	0.5	5,479
2024	0	4,197	4,197	4,197	9,902	4,197	42%	90	0.5	16,436	30	0.5	5,479
2025	430	3,809	4,239	3,809	8,206	3,809	46%	90	0.5	16,436	30	0.5	5,479
2026	430	3,852	4,282	3,852	9,920	3,852	39%	90	0.5	16,436	30	0.5	5,479
2027	430	3,895	4,325	3,895	10,060	3,895	39%	90	0.5	16,436	30	0.5	5,479
2028	430	3,938	4,368	3,938	8,699	3,938	45%	90	0.5	16,436	30	0.5	5,479
2029	430	3,982	4,412	3,982	12,293	3,982	32%	90	0.5	16,436	30	0.5	5,479
2030	430	4,026	4,456	4,026	10,769	4,026	37%	90	0.5	16,436	30	0.5	5,479
2031	430	4,070	4,500	4,070	10,794	4,070	38%	90	0.5	16,436	30	0.5	5,479
2032	430	4,115	4,545	4,115	11,504	4,115	36%	90	0.5	16,436	30	0.5	5,479
2033	430	4,161	4,591	4,161	9,847	4,161	42%	90	0.5	16,436	30	0.5	5,479
2034	430	4,207	4,637	4,207	11,778	4,207	36%	90	0.5	16,436	30	0.5	5,479
2035	430	4,253	4,683	4,253	8,736	4,253	49%	90	0.5	16,436	30	0.5	5,479
2036	430	4,300	4,730	4,300	10,246	4,300	42%	90	0.5	16,436	30	0.5	5,479
2037	430	4,347	4,777	4,347	13,657	4,347	32%	90	0.5	16,436	30	0.5	5,479
2038	430	4,395	4,825	4,395	12,250	4,395	36%	90	0.5	16,436	30	0.5	5,479
2039	430	4,443	4,873	4,443	13,518	4,443	33%	90	0.5	16,436	30	0.5	5,479
2040	430	4,492	4,922	4,492	10,097	4,492	44%	90	0.5	16,436	30	0.5	5,479

Assumptions for Recycled Water Supplies and Nacimiento Water Project Supplies - Alternatives 4A and 4B

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
	Recycled Water to Offset Agricultural Pumping (Alternatives 4A and 4B)							Nacimiento Project Water for Percolation Basin 4A (Alternatives 4A and 4B)			Nacimiento Project Water for Percolation Basin 4B (Alternative 4B)		
	City of Paso Robles WWTP			Available Recycled Water to Offset Agricultural Pumping	Agricultural Pumping within Selected Area	Recycled Water Used to Offset Ag Pumping	Recycled Water Offsetting Percentage	New Percolation Basin Area	New Percolation Basin Infiltration Rate	Nacimiento Project Water Used for Percolation	New Percolation Basin Area	New Percolation Basin Infiltration Rate	Nacimiento Project Water Used for Percolation
	Recycled Water for Direct Use	Discharge to River	TOTAL										
[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre]	[ft/day]	[acre-ft]	[acre]	[ft/day]	[acre-ft]	
Average	237	4,059	4,297	4,059	10,290	4,059	39%	90	0.5	16,436	30	0.5	5,479

Notes:

- [1] For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
- [2] Treated wastewater is released from the City of Paso Robles WWTP via a series of percolation ponds into the Salinas River system.
- [3] = [1] + [2]
- [4] = [3] - [1]
- [5] The selected area to offset agricultural pumping is provided on Figure 35.
- [6] = [4]
- [7] = [6]/[5]
- [8] Size of proposed percolation basin for Alternative 4A (see Figure 36).
- [9] Assumed infiltration rate, which is a conservative estimation for expected long-term performance of proposed percolation basin.
- [10] = [8] x [9] x 365.25 (i.e., 1 year)
- [11] Size of proposed percolation basin for Alternative 4B (see Figure 36).
- [12] Assumed infiltration rate, which is a conservative estimation for expected long-term performance of proposed percolation basin.
- [13] = [11] x [12] x 365.25 (i.e., 1 year)

Assumptions for Recycled Water, Nacimiento Water Project and State Water Project Supplies - Alternatives 5A1, 5A2, 5B1 and 5B2

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	Percolation Basin 5A1 (Alternatives 5A1, 5A2, 5B1 and 5B2)									Percolation Basins 5A2 (Alternatives 5A2 ad 5B2)				Percolation Basin 5B1 (Alternatives 5B1 and 5B2)			
	City of Paso Robles WWTP			Available Recycled Water for Percolation	Nacimiento Water Project Used for Percolation	New Percolation Basin Area	New Percolation Basin Infiltration Rate	Recharge Schedule	Combined Recycled and NWP Used for Percolation	New Percolation Basin Area ¹	New Percolation Basin Infiltration Rate	Recharge Schedule	Nacimiento Water Project Used for Percolation	New Percolation Basin Area	New Percolation Basin Infiltration Rate	Recharge Schedule	SWP Water Used for Percolation
	Recycled Water for Direct Use	Discharge to River	Total														
[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre]	[ft/day]	[acre-ft]	[acre]	[ft/day]		[acre-ft]	[acre]	[ft/day]		[acre-ft]		
2012	0	3,725	3,725	3,725	12,711	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2013	0	3,762	3,762	3,762	12,674	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2014	0	3,800	3,800	3,800	12,636	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2015	0	3,838	3,838	3,838	12,598	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2016	0	3,876	3,876	3,876	12,560	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2017	0	3,915	3,915	3,915	12,521	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2018	0	3,954	3,954	3,954	12,482	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2019	0	3,994	3,994	3,994	12,443	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2020	0	4,034	4,034	4,034	12,403	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2021	0	4,074	4,074	4,074	12,362	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2022	0	4,115	4,115	4,115	12,322	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2023	0	4,156	4,156	4,156	12,280	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2024	0	4,197	4,197	4,197	12,239	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2025	430	3,809	4,239	3,809	12,627	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2026	430	3,852	4,282	3,852	12,584	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2027	430	3,895	4,325	3,895	12,542	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2028	430	3,938	4,368	3,938	12,498	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2029	430	3,982	4,412	3,982	12,455	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2030	430	4,026	4,456	4,026	12,411	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2031	430	4,070	4,500	4,070	12,366	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2032	430	4,115	4,545	4,115	12,321	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2033	430	4,161	4,591	4,161	12,276	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2034	430	4,207	4,637	4,207	12,230	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2035	430	4,253	4,683	4,253	12,183	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2036	430	4,300	4,730	4,300	12,137	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2037	430	4,347	4,777	4,347	12,089	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2038	430	4,395	4,825	4,395	12,041	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2039	430	4,443	4,873	4,443	11,993	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203
2040	430	4,492	4,922	4,492	11,944	90	0.5	Oct - Sep	16,436	60	0.5	Oct - Sep	10,958	35	0.5	Apr - Sep	3,203

Assumptions for Recycled Water, Nacimiento Water Project and State Water Project Supplies - Alternatives 5A1, 5A2, 5B1 and 5B2

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	Percolation Basin 5A1 (Alternatives 5A1, 5A2, 5B1 and 5B2)									Percolation Basins 5A2 (Alternatives 5A2 ad 5B2)				Percolation Basin 5B1 (Alternatives 5B1 and 5B2)			
	City of Paso Robles WWTP			Available Recycled Water for Percolation	Nacimiento Water Project Used for Percolation	New Percolation Basin Area	New Percolation Basin Infiltration Rate	Recharge Schedule	Combined Recycled and NWP Used for Percolation	New Percolation Basin Area ¹	New Percolation Basin Infiltration Rate	Recharge Schedule	Nacimiento Water Project Used for Percolation	New Percolation Basin Area	New Percolation Basin Infiltration Rate	Recharge Schedule	SWP Water Used for Percolation
	Recycled Water for Direct Use	Discharge to River	Total														
[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre]	[ft/day]		[acre-ft]	[acre]	[ft/day]		[acre-ft]	[acre]	[ft/day]		[acre-ft]	
Average	237	4,059	4,297	4,059	12,377	90	0.5		16,436	60	0.5		10,958	35	0.5		3,203

Notes:

¹ Simulates recharge using a 20-acre and 40-acre percolation basins located in the Estrella Sub-Area (see Figure 37).

[1] For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).

[2] Treated wastewater is released from the City of Paso Robles WWTP via a series of percolation ponds into the Salinas River system.

[3] = [1] + [2]

[4] = [3] - [1]

[5] = [9] - [4]

[6] Size of proposed percolation basin for Alternative 5A1 (see Figure 37).

[7] Assumed infiltration rate, which is a conservative estimation for expected long-term performance of proposed percolation basin.

[8] Annual schedule for recharge at Alternative 5A1 percolation basin.

[9] = [6] x [7] x 365.25 (i.e., 1 year)

[10] Total combined size of proposed percolation basins for Alternative 5A2 (see Figure 37).

[11] Assumed infiltration rate, which is a conservative estimation for expected long-term performance of proposed percolation basin.

[12] Annual schedule for recharge at Alternative 5A2 percolation basins.

[13] = [10] x [11] x 365.25 (i.e., 1 year)

[14] Size of proposed percolation basin for Alternative 5B1 (see Figure 37).

[15] Assumed infiltration rate, which is a conservative estimation for expected long-term performance of proposed percolation basin.

[16] Annual schedule for recharge at Alternative 5B1 percolation basin.

[17] = [14] x [15] x 183 (i.e., 6 months)

Assumptions for Recycled Water, Nacimiento Water Project and State Water Project Supplies - Alternatives 6A, 6B and 6C

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	Percolation Basins 6A (Alternatives 6A, 6B and 6C)									Percolation Basin 6B (Alternative 6B)				Percolation Basin 6C (Alternative 6C)			
	City of Paso Robles WWTP			Available Recycled Water for Percolation	Nacimiento Water Project Used for Percolation	New Percolation Basins Total Area ¹	New Percolation Basins Infiltration Rate	Recharge Schedule	Combined Recycled and NWP Used for Percolation	New Percolation Basin Area	New Percolation Basin Infiltration Rate	Recharge Schedule	SWP Water Used for Percolation	Total Area for New Percolation Basins ²	New Percolation Basin Infiltration Rate	Recharge Schedule	Nacimiento Water Project Used for Percolation
	Recycled Water for Direct Use	Discharge to River	Total														
[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre]	[ft/day]		[acre-ft]	[acre]	[ft/day]		[acre-ft/yr]	[acre]	[ft/day]		[acre-ft/yr]	
2012	0	3,725	3,725	3,725	12,711	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2013	0	3,762	3,762	3,762	12,674	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2014	0	3,800	3,800	3,800	12,636	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2015	0	3,838	3,838	3,838	12,598	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2016	0	3,876	3,876	3,876	12,560	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2017	0	3,915	3,915	3,915	12,521	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2018	0	3,954	3,954	3,954	12,482	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2019	0	3,994	3,994	3,994	12,443	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2020	0	4,034	4,034	4,034	12,403	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2021	0	4,074	4,074	4,074	12,362	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2022	0	4,115	4,115	4,115	12,322	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2023	0	4,156	4,156	4,156	12,280	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2024	0	4,197	4,197	4,197	12,239	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2025	430	3,809	4,239	3,809	12,627	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2026	430	3,852	4,282	3,852	12,584	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2027	430	3,895	4,325	3,895	12,542	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2028	430	3,938	4,368	3,938	12,498	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2029	430	3,982	4,412	3,982	12,455	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2030	430	4,026	4,456	4,026	12,411	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2031	430	4,070	4,500	4,070	12,366	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2032	430	4,115	4,545	4,115	12,321	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2033	430	4,161	4,591	4,161	12,276	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2034	430	4,207	4,637	4,207	12,230	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2035	430	4,253	4,683	4,253	12,183	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2036	430	4,300	4,730	4,300	12,137	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2037	430	4,347	4,777	4,347	12,089	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2038	430	4,395	4,825	4,395	12,041	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2039	430	4,443	4,873	4,443	11,993	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873
2040	430	4,492	4,922	4,492	11,944	90	0.5	Oct - Sep	16,436	90	0.5	Oct - Sep	16,436	180	0.5	Oct - Sep	32,873

Assumptions for Recycled Water, Nacimiento Water Project and State Water Project Supplies - Alternatives 6A, 6B and 6C

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	Percolation Basins 6A (Alternatives 6A, 6B and 6C)									Percolation Basin 6B (Alternative 6B)				Percolation Basin 6C (Alternative 6C)			
	City of Paso Robles WWTP			Available Recycled Water for Percolation	Nacimiento Water Project Used for Percolation	New Percolation Basins Total Area ¹	New Percolation Basins Infiltration Rate	Recharge Schedule	Combined Recycled and NWP Used for Percolation	New Percolation Basin Area	New Percolation Basin Infiltration Rate	Recharge Schedule	SWP Water Used for Percolation	Total Area for New Percolation Basins ²	New Percolation Basin Infiltration Rate	Recharge Schedule	Nacimiento Water Project Used for Percolation
	Recycled Water for Direct Use	Discharge to River	Total														
[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre-ft]	[acre]	[ft/day]	[acre-ft]	[acre]	[ft/day]	[acre-ft/yr]	[acre]	[ft/day]	[acre-ft/yr]				
Average	237	4,059	4,297	4,059	12,377	90	0.5		16,436	90	0.5		16,436	180	0.5		32,873

Notes:

¹ Simulates recharge using 3, 30-acre percolation basins located in the Estrella Sub-Area (see Figure 38).

² Simulates recharge using a 60-acre and 120-acre percolation basins located in the Estrella Sub-Area (see Figure 38).

[1] For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).

[2] Treated wastewater is released from the City of Paso Robles WWTP via a series of percolation ponds into the Salinas River system.

[3] = [1] + [2]

[4] = [3] - [1]

[5] = [9] - [4]

[6] Total combined size of proposed percolation basins for Alternative 6A (see Figure 38).

[7] Assumed infiltration rate, which is a conservative estimation for expected long-term performance of proposed percolation basin.

[8] Annual schedule for recharge at Alternative 6A percolation basins.

[9] = [6] x [7] x 365.25 (i.e., 1 year)

[10] Size of proposed percolation basin for Alternative 6B (see Figure 38).

[11] Assumed infiltration rate, which is a conservative estimation for expected long-term performance of proposed percolation basin.

[12] Annual schedule for recharge at Alternative 6B percolation basins.

[13] = [10] x [11] x 365.25 (i.e., 1 year)

[14] Total combined size of proposed percolation basins for Alternative 6C (see Figure 38).

[15] Assumed infiltration rate, which is a conservative estimation for expected long-term performance of proposed percolation basin.

[16] Annual schedule for recharge at Alternative 6C percolation basins.

[17] = [14] x [15] x 365.25 (i.e., 1 year)

Assumptions for Nacimiento Water Project and State Water Project Supplies - Alternatives 7A and 7B

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
	Nacimiento Water Project to Offset Agricultural Pumping (Alternatives 7A and 7B)			State Water Project to Offset Agricultural Pumping (Alternative 7B)			SWP Water for Percolation (Alternative 7B)		
	Agricultural Pumping within Selected Area	NWP Offsetting Percentage	NWP Used to Offset Ag Pumping	Agricultural Pumping within Selected Area	SWP Water Offsetting Percentage	SWP Water Used to Offset Ag Pumping	New Percolation Basin Area	New Percolation Basin Infiltration Rate	SWP Water Used for Percolation
[acre-ft]		[acre-ft]	[acre-ft]		[acre-ft]	[acre]	[ft/day]	[acre-ft/yr]	
2012	1,517	50%	758	4,372	20%	874	10	0.5	1,826
2013	2,137	50%	1,069	4,155	20%	831	10	0.5	1,826
2014	3,055	50%	1,527	5,143	20%	1,029	10	0.5	1,826
2015	2,555	50%	1,278	4,891	20%	978	10	0.5	1,826
2016	2,559	50%	1,279	4,584	20%	917	10	0.5	1,826
2017	2,957	50%	1,479	5,099	20%	1,020	10	0.5	1,826
2018	2,617	50%	1,308	4,696	20%	939	10	0.5	1,826
2019	2,954	50%	1,477	5,078	20%	1,016	10	0.5	1,826
2020	3,262	50%	1,631	5,129	20%	1,026	10	0.5	1,826
2021	3,370	50%	1,685	5,329	20%	1,066	10	0.5	1,826
2022	3,134	50%	1,567	5,237	20%	1,047	10	0.5	1,826
2023	2,895	50%	1,447	4,944	20%	989	10	0.5	1,826
2024	2,935	50%	1,468	4,889	20%	978	10	0.5	1,826
2025	2,670	50%	1,335	4,699	20%	940	10	0.5	1,826
2026	3,207	50%	1,603	5,205	20%	1,041	10	0.5	1,826
2027	3,310	50%	1,655	5,524	20%	1,105	10	0.5	1,826
2028	2,749	50%	1,375	4,591	20%	918	10	0.5	1,826
2029	3,480	50%	1,740	5,267	20%	1,053	10	0.5	1,826
2030	3,417	50%	1,709	5,376	20%	1,075	10	0.5	1,826
2031	3,388	50%	1,694	5,400	20%	1,080	10	0.5	1,826
2032	3,257	50%	1,629	5,284	20%	1,057	10	0.5	1,826
2033	3,039	50%	1,519	4,970	20%	994	10	0.5	1,826
2034	3,380	50%	1,690	5,484	20%	1,097	10	0.5	1,826
2035	2,802	50%	1,401	4,541	20%	908	10	0.5	1,826
2036	3,235	50%	1,618	4,990	20%	998	10	0.5	1,826
2037	3,966	50%	1,983	5,915	20%	1,183	10	0.5	1,826
2038	3,902	50%	1,951	6,079	20%	1,216	10	0.5	1,826
2039	3,874	50%	1,937	6,068	20%	1,214	10	0.5	1,826
2040	3,174	50%	1,587	4,959	20%	992	10	0.5	1,826

Assumptions for Nacimiento Water Project and State Water Project Supplies - Alternatives 7A and 7B

Water Year	[1] [2] [3] Nacimiento Water Project to Offset Agricultural Pumping (Alternatives 7A and 7B)			[4] [5] [6] State Water Project to Offset Agricultural Pumping (Alternative 7B)			[7] [8] [9] SWP Water for Percolation (Alternative 7B)		
	Agricultural Pumping within Selected Area	NWP Offsetting Percentage	NWP Used to Offset Ag Pumping	Agricultural Pumping within Selected Area	SWP Water Offsetting Percentage	SWP Water Used to Offset Ag Pumping	New Percolation Basin Area	New Percolation Basin Infiltration Rate	SWP Water Used for Percolation
	[acre-ft]		[acre-ft]	[acre-ft]		[acre-ft]			
Average	3,062	50%	1,531	5,100	20%	1,020	10	0.5	1,826

Notes:

- [1] The selected area to offset agricultural pumping is provided on Figure 39.
- [2] Assumed maximum offsetting percentage.
- [3] = [1] * [2]
- [4] The selected area to offset agricultural pumping is provided on Figure 39.
- [5] Assumed maximum offsetting percentage.
- [6] = [4] * [5]
- [7] Size of proposed percolation basin for Alternative 7B (see Figure 39).
- [8] Assumed infiltration rate, which is a conservative estimation for expected long-term performance of proposed percolation basin.
- [9] = [7] x [8] x 365.25 (i.e., 1 year)

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Updated Baseline Run (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	32,890	20,692	7,003	265	1,305	74,882	71,551	13,229	3,802	2,125	3,453	16,242	1,689	112,091	-37,210
2013	46,817	131,429	33,827	7,073	267	1,962	221,375	68,021	13,340	3,840	2,147	3,453	21,024	1,868	113,692	107,684
2014	7,735	13,151	4,194	7,144	269	888	33,380	90,417	13,451	3,879	2,168	3,453	18,386	1,772	133,526	-100,146
2015	7,245	10,464	3,282	7,216	271	2,937	31,415	83,987	13,564	3,918	2,190	3,453	14,654	1,687	123,451	-92,036
2016	26,507	70,774	33,872	7,288	274	2,250	140,965	75,604	13,699	3,957	2,212	3,453	16,410	1,736	117,071	23,894
2017	5,687	8,799	2,028	7,361	277	2,260	26,412	91,276	13,836	3,996	2,234	3,453	14,157	1,670	130,622	-104,210
2018	10,215	14,965	8,450	7,434	279	2,271	43,613	81,603	13,973	4,036	2,256	3,453	12,339	1,653	119,312	-75,698
2019	10,783	13,659	8,552	7,508	282	281	41,065	92,300	14,111	4,077	2,279	3,453	11,370	1,640	129,228	-88,163
2020	9,473	7,461	2,379	7,584	285	292	27,473	99,499	14,250	4,117	2,302	3,453	9,623	1,623	134,865	-107,392
2021	21,833	25,709	22,367	7,659	286	2,302	80,157	94,015	14,304	4,159	2,325	3,453	9,023	1,618	128,895	-48,738
2022	19,734	20,761	23,066	7,736	287	2,312	73,897	90,085	14,358	4,200	2,348	3,453	9,443	1,624	125,511	-51,614
2023	65,415	158,274	33,287	7,813	288	2,323	267,400	83,779	14,414	4,242	2,371	3,453	13,460	1,795	123,513	143,887
2024	10,216	7,532	2,266	7,892	289	333	28,528	89,948	14,470	4,285	2,395	3,453	13,292	1,724	129,566	-101,038
2025	66,292	196,103	32,908	7,540	291	2,344	305,478	78,599	14,527	4,327	2,419	3,453	18,142	1,850	123,317	182,161
2026	20,949	26,002	26,879	7,620	293	354	82,097	91,543	14,672	4,371	2,443	3,453	18,957	1,813	137,251	-55,154
2027	38,678	88,653	31,975	7,701	296	364	167,667	92,106	14,817	4,414	2,468	3,453	19,627	1,856	138,740	28,926
2028	61,239	144,409	30,449	7,782	299	375	244,554	79,513	14,962	4,459	2,492	3,453	24,073	1,927	130,879	113,675
2029	11,219	7,642	1,968	7,864	302	385	29,379	104,809	15,109	4,503	2,517	3,453	20,542	1,782	152,715	-123,336
2030	18,467	20,606	19,386	7,947	305	406	67,117	95,843	15,257	4,548	2,542	3,453	16,491	1,722	139,856	-72,739
2031	22,332	23,107	25,657	8,031	308	406	79,840	95,907	15,405	4,594	2,568	3,453	14,476	1,685	138,087	-58,247
2032	10,370	7,528	2,170	8,115	311	406	28,900	100,456	15,555	4,640	2,593	3,453	12,049	1,663	140,408	-111,507
2033	15,647	12,598	12,112	8,201	314	406	49,278	88,507	15,705	4,686	2,619	3,453	10,653	1,646	127,269	-77,991
2034	10,491	7,124	2,480	8,287	317	406	29,106	103,104	15,856	4,733	2,646	3,453	9,350	1,633	140,774	-111,668
2035	79,269	203,012	31,526	8,374	320	2,406	324,907	78,152	16,008	4,780	2,672	3,453	14,751	1,807	121,624	203,283
2036	26,896	26,354	20,964	8,462	323	406	83,405	89,218	16,161	4,828	2,699	3,453	15,969	1,739	134,067	-50,662
2037	10,279	7,174	1,542	8,551	326	406	28,279	115,201	16,316	4,876	2,726	3,453	12,887	1,670	157,128	-128,849
2038	25,569	28,353	33,202	8,641	329	406	96,500	106,670	16,471	4,925	2,753	3,453	11,783	1,664	147,719	-51,219
2039	12,190	7,576	3,225	8,732	333	2,406	34,461	115,117	16,627	4,974	2,781	3,453	10,033	1,634	154,619	-120,158
2040	38,297	65,351	25,902	8,823	336	2,406	141,114	88,974	16,784	5,024	2,808	3,453	10,604	1,688	129,335	11,779

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Updated Baseline Run (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average (2016 Baseline) ^a	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Average (2014 Scenario 2) ^b	24,916	27,537	37,590	7,909	464	5,451	103,867	91,072	15,284	4,386	2,452	3,453	11,937	1,444	130,027	-26,159
Difference ^c	0	20,306	-20,328	-68	-167	-4,210	-4,465	-182	-414	0	0	0	2,539	276	2,219	-6,685

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model input: Calculated based on the results from the groundwater model Baseline Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
- [7] = [1] + [2] + [3] + [4] + [5] + [6]
- [8] Groundwater predictive model results: Based on calculated water demands for water years 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
- [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
- [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [13] Calculated based on the results from the groundwater model Baseline Run.
- [14] Calculated based on the results from the groundwater model Baseline Run.
- [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
- [16] = [7] - [15]
- ^a Represents 2016 Updated Baseline with Growth Run.
- ^b Represents 2014 Baseline with Growth Run (Scenario 2) from GEOSCIENCE and Todd Groundwater, 2014.
- ^c Equals difference between 2016 Updated Baseline Run and 2014 Baseline Run (Scenario 2).

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 1 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	32,871	20,692	7,003	265	1,305	74,862	46,383	11,280	3,802	2,125	3,453	16,281	1,689	85,013	-10,150
2013	46,817	131,001	33,827	7,073	267	1,962	220,948	43,506	11,391	3,840	2,147	3,453	21,299	1,868	87,503	133,444
2014	7,735	13,087	4,194	7,144	269	888	33,317	56,877	11,504	3,879	2,168	3,453	18,837	1,772	98,489	-65,172
2015	7,245	10,746	3,282	7,216	271	2,937	31,697	53,707	11,617	3,918	2,190	3,453	15,417	1,687	91,988	-60,292
2016	26,507	70,138	33,872	7,288	274	2,250	140,328	48,474	11,746	3,957	2,212	3,453	17,429	1,736	89,006	51,323
2017	5,687	8,730	2,028	7,361	277	2,260	26,342	58,069	11,875	3,996	2,234	3,453	15,324	1,670	96,621	-70,279
2018	10,215	14,759	8,450	7,434	279	2,271	43,408	52,536	12,005	4,036	2,256	3,453	13,694	1,653	89,634	-46,226
2019	10,783	13,396	8,552	7,508	282	281	40,802	58,371	12,136	4,077	2,279	3,453	12,890	1,640	94,845	-54,043
2020	9,473	7,446	2,379	7,584	285	292	27,459	62,759	12,268	4,117	2,302	3,453	11,370	1,623	97,891	-70,432
2021	21,833	25,113	22,367	7,659	286	2,302	79,561	59,602	12,371	4,159	2,325	3,453	10,949	1,618	94,474	-14,914
2022	19,734	20,259	23,066	7,736	287	2,312	73,394	57,341	12,474	4,200	2,348	3,453	11,672	1,624	93,111	-19,717
2023	65,415	155,008	33,287	7,813	288	2,323	264,134	53,476	12,579	4,242	2,371	3,453	16,315	1,795	94,230	169,904
2024	10,216	7,398	2,266	7,892	289	333	28,393	56,959	12,684	4,285	2,395	3,453	16,277	1,724	97,776	-69,383
2025	66,292	191,440	32,908	7,540	291	2,344	300,815	50,185	12,790	4,327	2,419	3,453	21,880	1,850	96,905	203,911
2026	20,949	25,891	26,879	7,620	293	354	81,986	58,405	12,927	4,371	2,443	3,453	23,019	1,813	106,430	-24,444
2027	38,678	85,755	31,975	7,701	296	364	164,768	58,449	13,065	4,414	2,468	3,453	24,091	1,856	107,796	56,972
2028	61,239	139,718	30,449	7,782	299	375	239,863	50,516	13,204	4,459	2,492	3,453	29,287	1,927	105,337	134,526
2029	11,219	7,407	1,968	7,864	302	385	29,145	65,884	13,343	4,503	2,517	3,453	25,579	1,782	117,062	-87,917
2030	18,467	19,853	19,386	7,947	305	406	66,364	60,793	13,484	4,548	2,542	3,453	21,661	1,722	108,203	-41,839
2031	22,332	22,230	25,657	8,031	308	406	78,964	60,822	13,625	4,594	2,568	3,453	19,671	1,685	106,417	-27,453
2032	10,370	7,237	2,170	8,115	311	406	28,609	63,524	13,767	4,640	2,593	3,453	17,148	1,663	106,788	-78,179
2033	15,647	12,030	12,112	8,201	314	406	48,710	56,230	13,910	4,686	2,619	3,453	15,799	1,646	98,343	-49,633
2034	10,491	6,923	2,480	8,287	317	406	28,905	65,348	14,054	4,733	2,646	3,453	14,402	1,633	106,268	-77,363
2035	79,269	195,384	31,526	8,374	320	2,406	317,280	49,481	14,199	4,780	2,672	3,453	21,210	1,807	97,602	219,678
2036	26,896	25,212	20,964	8,462	323	406	82,264	56,027	14,346	4,828	2,699	3,453	22,839	1,739	105,930	-23,666
2037	10,279	6,865	1,542	8,551	326	406	27,970	72,332	14,493	4,876	2,726	3,453	19,319	1,670	118,868	-90,899
2038	25,569	26,772	33,202	8,641	329	406	94,919	67,103	14,641	4,925	2,753	3,453	18,275	1,664	112,814	-17,895
2039	12,190	7,231	3,225	8,732	333	2,406	34,116	72,248	14,790	4,974	2,781	3,453	16,219	1,634	116,098	-81,981
2040	38,297	62,128	25,902	8,823	336	2,406	137,892	56,390	14,940	5,024	2,808	3,453	17,204	1,688	101,507	36,385

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 1 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	TOTAL OUTFLOW	
[acre-ft]							[acre-ft]								[acre-ft]	
Average (Alternative 1)	24,916	46,622	17,262	7,841	297	1,241	98,180	57,648	13,018	4,386	2,452	3,453	18,116	1,720	100,791	-2,612
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	-1,222	0	0	0	0	-1,222	-33,242	-1,852	0	0	0	3,640	0	-31,455	30,233

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model output: Calculated based on calibrated streambed conductance, model-generated surface flows and groundwater elevations for Alternative 1 Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
- [7] = [1] + [2] + [3] + [4] + [5] + [6]
- [8] Groundwater predictive model results: Based on calculated water demands for water years 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
Alternative 1 assumes that agricultural pumping will be reduced by an average of 33,242 acre-ft/yr (see Table 4).
- [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
Alternative 1 assumes that municipal pumping will be reduced by an average of 1,852 acre-ft/yr (see Table 4).
- [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [13] Calculated based on the results from the ground water model Alternative 1 Run.
- [14] Calculated based on the results from the ground water model Alternative 1 Run.
- [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
- [16] = [7] - [15]

^a Equals the difference between Alternative 1 and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 2A (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	32,890	20,692	7,003	265	2,233	75,809	71,551	13,229	3,802	2,125	3,453	16,242	1,689	112,091	-36,282
2013	46,817	131,394	33,827	7,073	267	2,138	221,516	68,021	13,340	3,840	2,147	3,453	21,114	1,868	113,782	107,734
2014	7,735	13,150	4,194	7,144	269	2,183	34,675	90,417	13,451	3,879	2,168	3,453	18,470	1,772	133,610	-98,935
2015	7,245	10,541	3,282	7,216	271	2,937	31,492	83,987	13,564	3,918	2,190	3,453	14,802	1,687	123,600	-92,108
2016	26,507	70,585	33,872	7,288	274	3,494	142,020	75,604	13,699	3,957	2,212	3,453	16,902	1,736	117,563	24,457
2017	5,687	8,849	2,028	7,361	277	3,504	27,706	91,276	13,836	3,996	2,234	3,453	14,707	1,670	131,172	-103,466
2018	10,215	15,010	8,450	7,434	279	3,515	44,903	81,603	13,973	4,036	2,256	3,453	12,840	1,653	119,814	-74,911
2019	10,783	13,676	8,552	7,508	282	3,525	44,326	92,300	14,111	4,077	2,279	3,453	11,870	1,640	129,728	-85,401
2020	9,473	7,509	2,379	7,584	285	3,536	30,766	99,499	14,250	4,117	2,302	3,453	10,067	1,623	135,309	-104,543
2021	21,833	25,624	22,367	7,659	286	3,546	81,316	94,015	14,304	4,159	2,325	3,453	9,401	1,618	129,273	-47,957
2022	19,734	20,695	23,066	7,736	287	3,556	75,074	90,085	14,358	4,200	2,348	3,453	9,923	1,624	125,991	-50,917
2023	65,415	157,640	33,287	7,813	288	3,567	268,010	83,779	14,414	4,242	2,371	3,453	14,809	1,795	124,863	143,147
2024	10,216	7,624	2,266	7,892	289	3,577	31,864	89,948	14,470	4,285	2,395	3,453	14,439	1,724	130,714	-98,850
2025	66,292	194,272	32,908	7,540	291	3,588	304,891	78,599	14,527	4,327	2,419	3,453	20,252	1,851	125,428	179,463
2026	20,949	25,739	26,879	7,620	293	3,598	85,078	91,543	14,672	4,371	2,443	3,453	21,251	1,813	139,545	-54,467
2027	38,678	87,528	31,975	7,701	296	3,608	169,785	92,106	14,817	4,414	2,468	3,453	22,204	1,857	141,319	28,467
2028	61,239	142,601	30,449	7,782	299	3,619	245,989	79,513	14,962	4,459	2,492	3,453	26,797	1,928	133,604	112,385
2029	11,219	7,835	1,968	7,864	302	3,629	32,817	104,809	15,109	4,503	2,517	3,453	22,711	1,783	154,885	-122,068
2030	18,467	20,750	19,386	7,947	305	3,650	70,505	95,843	15,257	4,548	2,542	3,453	18,473	1,722	141,838	-71,333
2031	22,332	23,320	25,657	8,031	308	3,650	83,297	95,907	15,405	4,594	2,568	3,453	16,266	1,690	139,882	-56,584
2032	10,370	7,646	2,170	8,115	311	3,650	32,262	100,456	15,555	4,640	2,593	3,453	13,430	1,668	141,794	-109,532
2033	15,647	12,716	12,112	8,201	314	3,650	52,639	88,507	15,705	4,686	2,619	3,453	11,954	1,647	128,571	-75,932
2034	10,491	7,182	2,480	8,287	317	3,650	32,408	103,104	15,856	4,733	2,646	3,453	10,357	1,634	141,783	-109,375
2035	79,269	201,215	31,526	8,374	320	3,650	324,355	78,152	16,008	4,780	2,672	3,453	16,902	1,808	123,776	200,579
2036	26,896	26,636	20,964	8,462	323	3,650	86,932	89,218	16,161	4,828	2,699	3,453	18,160	1,740	136,259	-49,327
2037	10,279	7,272	1,542	8,551	326	3,650	31,621	115,201	16,316	4,876	2,726	3,453	14,390	1,670	158,632	-127,011
2038	25,569	28,184	33,202	8,641	329	3,650	99,575	106,670	16,471	4,925	2,753	3,453	13,144	1,665	149,080	-49,505
2039	12,190	7,612	3,225	8,732	333	3,650	35,742	115,117	16,627	4,974	2,781	3,453	11,044	1,635	155,631	-119,889
2040	38,297	64,667	25,902	8,823	336	3,650	141,674	88,974	16,784	5,024	2,808	3,453	11,821	1,688	130,553	11,122

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 2A (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average (Alternative 2A)	24,916	47,599	17,262	7,841	297	3,431	101,346	90,890	14,870	4,386	2,452	3,453	15,681	1,720	133,451	-32,105
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	-245	0	0	0	2,190	1,945	0	0	0	0	0	1,205	0	1,205	740

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
 - [2] Groundwater predictive model input: Calculated based on the results from the ground water model Alternative 2A Run.
 - [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
 - [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
 - [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
 - [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
Additional Nacimiento water for Alternative 2A is calculated as the difference between projected use and full allocation for Atascadero MWC (see Table 5).
 - [7] = [1] + [2] + [3] + [4] + [5] + [6]
 - [8] Groundwater predictive model results: Based on calculated water demands for water years 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
 - [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
 - [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
 - [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
 - [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
 - [13] Calculated based on the results from the ground water model Alternative 2A Run.
 - [14] Calculated based on the results from the ground water model Alternative 2A Run.
 - [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
 - [16] = [7] - [15]
- ^a Equals the difference between Alternative 2A and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 2B (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	32,855	20,692	7,003	265	6,233	79,774	71,551	13,229	3,802	2,125	3,453	16,269	1,689	112,119	-32,345
2013	46,817	130,964	33,827	7,073	267	5,494	224,443	68,021	13,340	3,840	2,147	3,453	21,477	1,868	114,146	110,297
2014	7,735	13,021	4,194	7,144	269	2,867	35,230	90,417	13,451	3,879	2,168	3,453	18,823	1,772	133,963	-98,733
2015	7,245	10,686	3,282	7,216	271	2,937	31,637	83,987	13,564	3,918	2,190	3,453	15,132	1,687	123,930	-92,293
2016	26,507	70,203	33,872	7,288	274	8,022	146,166	75,604	13,699	3,957	2,212	3,453	17,394	1,736	118,055	28,111
2017	5,687	8,688	2,028	7,361	277	5,012	29,053	91,276	13,836	3,996	2,234	3,453	15,195	1,671	131,660	-102,607
2018	10,215	14,725	8,450	7,434	279	7,983	49,085	81,603	13,973	4,036	2,256	3,453	13,457	1,653	120,430	-71,345
2019	10,783	13,329	8,552	7,508	282	4,973	45,427	92,300	14,111	4,077	2,279	3,453	12,488	1,640	130,346	-84,919
2020	9,473	7,392	2,379	7,584	285	4,954	32,066	99,499	14,250	4,117	2,302	3,453	10,619	1,623	135,861	-103,795
2021	21,833	25,304	22,367	7,659	286	7,924	85,374	94,015	14,304	4,159	2,325	3,453	9,990	1,618	129,862	-44,488
2022	19,734	20,145	23,066	7,736	287	7,904	78,872	90,085	14,358	4,200	2,348	3,453	10,760	1,624	126,828	-47,956
2023	65,415	156,346	33,287	7,813	288	7,885	271,034	83,779	14,414	4,242	2,371	3,453	16,263	1,795	126,317	144,717
2024	10,216	7,322	2,266	7,892	289	4,875	32,860	89,948	14,470	4,285	2,395	3,453	15,515	1,724	131,790	-98,930
2025	66,292	192,390	32,908	7,540	291	7,846	307,267	78,599	14,527	4,327	2,419	3,453	21,879	1,851	127,055	180,212
2026	20,949	25,391	26,879	7,620	293	7,826	88,958	91,543	14,672	4,371	2,443	3,453	23,139	1,814	141,435	-52,477
2027	38,678	85,634	31,975	7,701	296	7,806	172,090	92,106	14,817	4,414	2,468	3,453	24,540	1,858	143,655	28,435
2028	61,239	140,140	30,449	7,782	299	7,787	247,696	79,513	14,962	4,459	2,492	3,453	29,476	1,929	136,284	111,412
2029	11,219	7,251	1,968	7,864	302	4,777	33,381	104,809	15,109	4,503	2,517	3,453	24,475	1,784	156,650	-123,269
2030	18,467	19,810	19,386	7,947	305	7,758	73,673	95,843	15,257	4,548	2,542	3,453	20,017	1,723	143,383	-69,710
2031	22,332	22,531	25,657	8,031	308	7,728	86,587	95,907	15,405	4,594	2,568	3,453	17,866	1,690	141,482	-54,895
2032	10,370	7,204	2,170	8,115	311	4,708	32,879	100,456	15,555	4,640	2,593	3,453	14,603	1,669	142,968	-110,090
2033	15,647	12,206	12,112	8,201	314	7,668	56,148	88,507	15,705	4,686	2,619	3,453	13,016	1,648	129,634	-73,486
2034	10,491	6,875	2,480	8,287	317	4,648	33,099	103,104	15,856	4,733	2,646	3,453	11,227	1,634	142,652	-109,554
2035	79,269	199,554	31,526	8,374	320	7,608	326,652	78,152	16,008	4,780	2,672	3,453	18,236	1,809	125,111	201,541
2036	26,896	25,950	20,964	8,462	323	7,578	90,174	89,218	16,161	4,828	2,699	3,453	19,568	1,741	137,667	-47,493
2037	10,279	6,995	1,542	8,551	326	4,558	32,252	115,201	16,316	4,876	2,726	3,453	15,428	1,671	159,670	-127,419
2038	25,569	27,559	33,202	8,641	329	7,518	102,818	106,670	16,471	4,925	2,753	3,453	14,124	1,665	150,060	-47,242
2039	12,190	7,272	3,225	8,732	333	4,498	36,250	115,117	16,627	4,974	2,781	3,453	11,852	1,635	156,439	-120,189
2040	38,297	63,885	25,902	8,823	336	7,458	144,700	88,977	16,784	5,024	2,808	3,453	12,680	1,689	131,415	13,286

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 2B (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average (Alternative 2B)	24,916	46,953	17,262	7,841	297	6,374	103,643	90,890	14,870	4,386	2,452	3,453	16,742	1,720	134,513	-30,870
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	-891	0	0	0	5,133	4,241	0	0	0	0	0	2,266	0	2,267	1,975

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
 - [2] Groundwater predictive model input: Calculated based on the results from the ground water model Alternative 2B Run.
 - [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
 - [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
 - [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
 - [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
Additional Nacimiento water for Alternative 2A is calculated as the difference between projected use and full allocation for Atascadero MWC (see Table 5).
Additional Nacimiento water for Alternative 2B is calculated as the difference between projected use and full allocation for City of Paso Robles (see Table 5).
 - [7] = [1] + [2] + [3] + [4] + [5] + [6]
 - [8] Groundwater predictive model results: Based on calculated water demands for water years 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
 - [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
 - [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
 - [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
 - [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
 - [13] Calculated based on the results from the ground water model Alternative 2B Run.
 - [14] Calculated based on the results from the ground water model Alternative 2B Run.
 - [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
 - [16] = [7] - [15]
- ^a Equals the difference between Alternative 2B and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 3 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	33,253	20,692	3,278	265	1,305	71,519	67,826	13,229	3,802	2,125	3,453	15,513	1,689	107,638	-36,118
2013	46,817	132,388	33,827	3,311	267	1,962	218,572	64,259	13,340	3,840	2,147	3,453	19,696	1,868	108,602	109,971
2014	7,735	13,446	4,194	3,344	269	888	29,875	86,617	13,451	3,879	2,168	3,453	17,101	1,772	128,441	-98,566
2015	7,245	10,270	3,282	3,378	271	2,937	27,383	80,149	13,564	3,918	2,190	3,453	13,191	1,687	118,151	-90,767
2016	26,507	71,820	33,872	3,411	274	2,250	138,135	71,729	13,699	3,957	2,212	3,453	14,745	1,736	111,529	26,605
2017	5,687	9,110	2,028	3,446	277	2,260	22,808	87,361	13,836	3,996	2,234	3,453	12,711	1,670	125,260	-102,453
2018	10,215	15,521	8,450	3,480	279	2,271	40,216	77,649	13,973	4,036	2,256	3,453	10,996	1,652	114,016	-73,800
2019	10,783	14,287	8,552	3,515	282	281	37,699	88,306	14,111	4,077	2,279	3,453	10,070	1,639	123,935	-86,235
2020	9,473	7,795	2,379	3,550	285	292	23,774	95,524	14,250	4,117	2,302	3,453	8,525	1,622	129,792	-106,018
2021	21,833	26,261	22,367	3,585	286	2,302	76,634	90,055	14,304	4,159	2,325	3,453	7,900	1,618	123,812	-47,178
2022	19,734	21,473	23,066	3,621	287	2,312	70,494	86,053	14,358	4,200	2,348	3,453	8,274	1,624	120,310	-49,816
2023	65,415	159,802	33,287	3,658	288	2,323	264,772	79,729	14,414	4,242	2,371	3,453	11,858	1,794	117,861	146,911
2024	10,216	7,989	2,266	3,694	289	333	24,787	85,859	14,470	4,285	2,395	3,453	11,978	1,723	124,164	-99,377
2025	66,292	198,051	32,908	3,731	291	2,344	303,616	74,907	14,527	4,327	2,419	3,453	16,336	1,849	117,819	185,797
2026	20,949	27,001	26,879	3,768	293	354	79,244	87,811	14,672	4,371	2,443	3,453	17,331	1,812	131,892	-52,648
2027	38,678	89,839	31,975	3,806	296	364	164,958	88,286	14,817	4,414	2,468	3,453	17,924	1,855	133,216	31,742
2028	61,239	145,629	30,449	3,844	299	375	241,836	75,651	14,962	4,459	2,492	3,453	22,162	1,927	125,106	116,730
2029	11,219	8,063	1,968	3,883	302	385	25,819	100,900	15,109	4,503	2,517	3,453	18,995	1,782	147,259	-121,440
2030	18,467	21,504	19,386	3,921	305	406	63,989	91,817	15,257	4,548	2,542	3,453	14,987	1,722	134,326	-70,336
2031	22,332	23,893	25,657	3,961	308	406	76,557	91,841	15,405	4,594	2,568	3,453	13,097	1,685	132,642	-56,086
2032	10,370	8,045	2,170	4,000	311	406	25,302	96,351	15,555	4,640	2,593	3,453	10,912	1,662	135,165	-109,863
2033	15,647	13,160	12,112	4,040	314	406	45,679	84,347	15,705	4,686	2,619	3,453	9,560	1,645	122,015	-76,336
2034	10,491	7,465	2,480	4,081	317	406	25,240	98,901	15,856	4,733	2,646	3,453	8,452	1,633	135,673	-110,432
2035	79,269	204,742	31,526	4,121	320	2,406	322,385	73,903	16,008	4,780	2,672	3,453	13,236	1,807	115,859	206,526
2036	26,896	27,203	20,964	4,163	323	406	79,955	84,920	16,161	4,828	2,699	3,453	14,592	1,739	128,392	-48,436
2037	10,279	7,567	1,542	4,204	326	406	24,325	110,858	16,316	4,876	2,726	3,453	11,844	1,669	151,741	-127,416
2038	25,569	29,027	33,202	4,246	329	406	92,779	102,276	16,471	4,925	2,753	3,453	10,702	1,664	142,243	-49,464
2039	12,190	7,885	3,225	4,289	333	2,406	30,328	110,526	16,627	4,974	2,781	3,453	9,150	1,634	149,145	-118,817
2040	38,297	66,057	25,902	4,332	336	2,406	137,329	84,160	16,784	5,024	2,808	3,453	9,558	1,687	123,475	13,854

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 3 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average (Alternative 3)	24,916	48,571	17,262	3,781	297	1,241	96,069	86,847	14,870	4,386	2,452	3,453	13,152	1,720	126,879	-30,809
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	727	0	-4,059	0	0	-3,332	-4,042	0	0	0	0	-1,325	0	-5,367	2,035

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
 - [2] Groundwater predictive model input: Calculated based on the results from the ground water model Alternative 3 Run.
 - [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
 - [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
 For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
 Alternative 3 assumes average of 4,059 acre-ft/yr of treated wastewater effluent used by City of Paso Robles to offset agricultural pumping (see Figure 34 and Table 6). This portion of treated wastewater is not included in this column.
 - [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
 - [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
 Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
 - [7] = [1] + [2] + [3] + [4] + [5] + [6]
 - [8] Groundwater predictive model results: Based on calculated water demands for water years 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
 Alternative 3 assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being recycled and used to offset agricultural pumping (see Figure 34 and Table 6).
 - [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
 - [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
 - [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
 - [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ET zone.
 Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
 - [13] Calculated based on the results from the ground water model Alternative 3 Run.
 - [14] Calculated based on the results from the ground water model Alternative 3 Run.
 - [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
 - [16] = [7] - [15]
- ^a Equals the difference between Alternative 3 and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 4A (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	33,258	20,692	3,278	265	17,741	87,960	67,826	13,229	3,802	2,125	3,453	15,494	1,689	107,619	-19,659
2013	46,817	132,476	33,827	3,311	267	18,398	235,096	64,259	13,340	3,840	2,147	3,453	19,718	1,868	108,624	126,472
2014	7,735	13,450	4,194	3,344	269	17,324	46,316	86,617	13,451	3,879	2,168	3,453	17,116	1,772	128,456	-82,140
2015	7,245	10,272	3,282	3,378	271	19,373	43,822	80,149	13,564	3,918	2,190	3,453	13,205	1,687	118,165	-74,343
2016	26,507	71,543	33,872	3,411	274	18,686	154,293	71,729	13,699	3,957	2,212	3,453	14,772	1,736	111,557	42,736
2017	5,687	9,152	2,028	3,446	277	18,696	39,285	87,361	13,836	3,996	2,234	3,453	12,809	1,670	125,359	-86,074
2018	10,215	15,576	8,450	3,480	279	18,707	56,707	77,649	13,973	4,036	2,256	3,453	11,156	1,652	114,176	-57,469
2019	10,783	14,385	8,552	3,515	282	16,717	54,234	88,306	14,111	4,077	2,279	3,453	10,313	1,639	124,177	-69,944
2020	9,473	8,042	2,379	3,550	285	16,728	40,457	95,465	14,250	4,117	2,302	3,453	8,820	1,622	130,028	-89,572
2021	21,833	26,267	22,367	3,585	286	18,738	93,077	89,941	14,304	4,159	2,325	3,453	8,235	1,618	124,033	-30,956
2022	19,734	21,462	23,066	3,621	287	18,748	86,919	85,970	14,358	4,200	2,348	3,453	8,685	1,624	120,638	-33,719
2023	65,415	156,907	33,287	3,658	288	18,759	278,313	79,623	14,414	4,242	2,371	3,453	12,511	1,794	118,408	159,905
2024	10,216	8,400	2,266	3,694	289	16,769	41,635	85,751	14,470	4,285	2,395	3,453	12,619	1,724	124,696	-83,061
2025	66,292	194,158	32,908	3,731	291	18,780	316,160	74,789	14,527	4,327	2,419	3,453	17,258	1,850	118,623	197,537
2026	20,949	26,250	26,879	3,768	293	16,790	94,929	87,691	14,672	4,371	2,443	3,453	18,218	1,813	132,659	-37,730
2027	38,678	87,517	31,975	3,806	296	16,800	179,072	88,212	14,817	4,414	2,468	3,453	19,006	1,856	134,226	44,846
2028	61,239	141,998	30,449	3,844	299	16,811	254,641	75,575	14,962	4,459	2,492	3,453	23,435	1,927	126,303	128,338
2029	11,219	8,596	1,968	3,883	302	16,821	42,788	100,828	15,109	4,503	2,517	3,453	20,257	1,782	148,449	-105,661
2030	18,467	20,885	19,386	3,921	305	16,842	79,807	91,817	15,257	4,548	2,542	3,453	16,147	1,722	135,486	-55,679
2031	22,332	22,958	25,657	3,961	308	16,842	92,057	91,837	15,405	4,594	2,568	3,453	14,273	1,689	133,818	-41,761
2032	10,370	8,569	2,170	4,000	311	16,842	42,262	96,340	15,555	4,640	2,593	3,453	12,042	1,668	136,290	-94,028
2033	15,647	13,348	12,112	4,040	314	16,842	62,304	84,346	15,705	4,686	2,619	3,453	10,659	1,647	123,115	-60,811
2034	10,491	8,093	2,480	4,081	317	16,842	42,305	98,896	15,856	4,733	2,646	3,453	9,467	1,634	136,684	-94,379
2035	79,269	198,809	31,526	4,121	320	18,842	332,887	73,901	16,008	4,780	2,672	3,453	15,058	1,808	117,680	215,208
2036	26,896	26,186	20,964	4,163	323	16,842	95,374	84,918	16,161	4,828	2,699	3,453	16,554	1,740	130,353	-34,979
2037	10,279	8,146	1,542	4,204	326	16,842	41,339	110,853	16,316	4,876	2,726	3,453	13,654	1,670	153,548	-112,209
2038	25,569	28,668	33,202	4,246	329	16,842	108,856	102,276	16,471	4,925	2,753	3,453	12,316	1,664	143,857	-35,001
2039	12,190	8,506	3,225	4,289	333	18,842	47,384	110,673	16,627	4,974	2,781	3,453	10,580	1,635	150,722	-103,338
2040	38,297	64,261	25,902	4,332	336	18,842	151,969	84,484	16,784	5,024	2,808	3,453	11,048	1,688	125,289	26,679

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 4A (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average (Alternative 4A)	24,916	47,867	17,262	3,781	297	17,678	111,802	86,830	14,870	4,386	2,452	3,453	13,980	1,720	127,691	-15,889
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	24	0	-4,059	0	16,437	12,400	-4,059	0	0	0	0	-496	0	-4,555	16,955

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model input: Calculated based on the results from the ground water model Alternative 4A Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
 For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
 Alternative 4A assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being recycled and used to offset agricultural pumping (see Figure 35 and Table 7). This portion of wastewater is not included in this column.
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
 Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
 Alternative 4A assumes average of 16,436 acre-ft/yr of NWP supplies recharged to a new percolation basin (see Figure 36 and Table 7).
- [7] = [1] + [2] + [3] + [4] + [5] + [6]
- [8] Groundwater predictive model results: Based on calculated water demands for water years 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
 Alternative 4A assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being recycled and used to offset agricultural pumping (see Figure 35 and Table 7).
- [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
- [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
 Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [13] Calculated based on the results from the ground water model Alternative 4A Run.
- [14] Calculated based on the results from the ground water model Alternative 4A Run.
- [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
- [16] = [7] - [15]

^a Equals the difference between Alternative 4A and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 4B (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	33,261	20,692	3,278	265	23,220	93,442	67,826	13,229	3,802	2,125	3,453	15,452	1,689	107,576	-14,133
2013	46,817	132,139	33,827	3,311	267	23,877	240,238	64,258	13,340	3,840	2,147	3,453	19,747	1,867	108,652	131,586
2014	7,735	13,473	4,194	3,344	269	22,803	51,818	86,617	13,451	3,879	2,168	3,453	17,334	1,772	128,673	-76,856
2015	7,245	10,600	3,282	3,378	271	24,852	49,628	80,148	13,564	3,918	2,190	3,453	13,669	1,687	118,628	-69,000
2016	26,507	71,459	33,872	3,411	274	24,165	159,689	71,728	13,699	3,957	2,212	3,453	15,373	1,736	112,157	47,531
2017	5,687	9,197	2,028	3,446	277	24,175	44,810	87,361	13,836	3,996	2,234	3,453	13,472	1,670	126,021	-81,212
2018	10,215	15,563	8,450	3,480	279	24,186	62,173	77,648	13,973	4,036	2,256	3,453	11,842	1,653	114,861	-52,688
2019	10,783	14,389	8,552	3,515	282	22,196	59,716	88,306	14,111	4,077	2,279	3,453	11,057	1,640	124,921	-65,205
2020	9,473	8,083	2,379	3,550	285	22,207	45,976	95,464	14,250	4,117	2,302	3,453	9,626	1,623	130,834	-84,857
2021	21,833	26,263	22,367	3,585	286	24,217	98,551	89,940	14,304	4,159	2,325	3,453	9,066	1,618	124,863	-26,311
2022	19,734	21,343	23,066	3,621	287	24,227	92,278	85,970	14,358	4,200	2,348	3,453	9,582	1,625	121,535	-29,257
2023	65,415	156,099	33,287	3,658	288	24,238	282,984	79,622	14,414	4,242	2,371	3,453	13,528	1,795	119,425	163,559
2024	10,216	8,370	2,266	3,694	289	22,248	47,083	85,750	14,470	4,285	2,395	3,453	13,677	1,724	125,754	-78,671
2025	66,292	193,078	32,908	3,731	291	24,259	320,558	74,789	14,527	4,327	2,419	3,453	18,482	1,851	119,848	200,711
2026	20,949	26,175	26,879	3,768	293	22,269	100,333	87,691	14,672	4,371	2,443	3,453	19,592	1,814	134,035	-33,702
2027	38,678	86,785	31,975	3,806	296	22,279	183,819	88,211	14,817	4,414	2,468	3,453	20,466	1,857	135,686	48,133
2028	61,239	141,007	30,449	3,844	299	22,290	259,129	75,574	14,962	4,459	2,492	3,453	25,028	1,928	127,896	131,233
2029	11,219	8,581	1,968	3,883	302	22,300	48,252	100,827	15,109	4,503	2,517	3,453	21,867	1,783	150,059	-101,807
2030	18,467	20,420	19,386	3,921	305	22,321	84,820	91,817	15,257	4,548	2,542	3,453	17,757	1,723	137,097	-52,277
2031	22,332	22,472	25,657	3,961	308	22,321	97,051	91,836	15,405	4,594	2,568	3,453	15,952	1,690	135,498	-38,447
2032	10,370	8,538	2,170	4,000	311	22,321	47,710	96,339	15,555	4,640	2,593	3,453	13,691	1,669	137,939	-90,230
2033	15,647	13,046	12,112	4,040	314	22,321	67,480	84,346	15,705	4,686	2,619	3,453	12,247	1,648	124,704	-57,223
2034	10,491	8,057	2,480	4,081	317	22,321	47,747	98,896	15,856	4,733	2,646	3,453	11,040	1,634	138,258	-90,511
2035	79,269	196,885	31,526	4,121	320	24,321	336,442	73,899	16,008	4,780	2,672	3,453	17,124	1,809	119,745	216,698
2036	26,896	25,665	20,964	4,163	323	22,321	100,332	84,916	16,161	4,828	2,699	3,453	19,002	1,741	132,800	-32,467
2037	10,279	8,126	1,542	4,204	326	22,321	46,799	110,853	16,316	4,876	2,726	3,453	15,993	1,671	155,887	-109,089
2038	25,569	28,120	33,202	4,246	329	22,321	113,787	102,273	16,471	4,925	2,753	3,453	14,521	1,665	146,061	-32,274
2039	12,190	8,437	3,225	4,289	333	24,321	52,794	110,675	16,627	4,974	2,781	3,453	12,668	1,635	152,813	-100,019
2040	38,297	63,265	25,902	4,332	336	24,321	156,451	84,482	16,784	5,024	2,808	3,453	13,129	1,689	127,370	29,082

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 4B (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average (Alternative 4B)	24,916	47,548	17,262	3,781	297	23,156	116,962	86,830	14,870	4,386	2,452	3,453	15,241	1,720	128,952	-11,990
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	-295	0	-4,059	0	21,915	17,560	-4,060	0	0	0	0	765	0	-3,294	20,855

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
 - [2] Groundwater predictive model input: Calculated based on the results from the ground water model Alternative 4B Run.
 - [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
 - [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
 For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
 Alternative 4A assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being recycled and used to offset agricultural pumping (see Figure 35 and Table 7). This portion of wastewater is not included in this column.
 - [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
 - [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
 Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
 Alternative 4A assumes average of 16,436 acre-ft/yr of Nacimiento Project water being recharged to a new 90-acre percolation basin (see Figure 36 and Table 7).
 Alternative 4B assumes average of 5,479 acre-ft/yr of Nacimiento Project water being recharged to a new 30-acre percolation basin (see Figure 36 and Table 7).
 - [7] = [1] + [2] + [3] + [4] + [5] + [6]
 - [8] Groundwater predictive model results: Based on calculated water demands for water years 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
 Alternative 4A assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being recycled and used to offset agricultural pumping (see Figure 35 and Table 7).
 - [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
 - [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
 - [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
 - [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
 Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
 - [13] Calculated based on the results from the ground water model Alternative 4B Run.
 - [14] Calculated based on the results from the ground water model Alternative 4B Run.
 - [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
 - [16] = [7] - [15]
- ^a Equals the difference between Alternative 4B and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 5A1 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	33,342	20,692	7,003	265	14,016	88,045	71,551	13,229	3,802	2,125	3,453	17,780	1,689	113,630	-25,585
2013	46,817	131,020	33,827	7,073	267	14,636	233,640	68,021	13,340	3,840	2,147	3,453	24,169	1,869	116,839	116,802
2014	7,735	14,438	4,194	7,144	269	13,524	47,304	90,417	13,451	3,879	2,168	3,453	21,947	1,773	137,088	-89,784
2015	7,245	12,148	3,282	7,216	271	15,535	45,698	83,987	13,564	3,918	2,190	3,453	18,501	1,688	127,300	-81,602
2016	26,507	71,056	33,872	7,288	274	14,810	153,807	75,605	13,699	3,957	2,212	3,453	20,248	1,737	120,910	32,897
2017	5,687	10,061	2,028	7,361	277	14,781	40,194	91,276	13,836	3,996	2,234	3,453	18,218	1,671	134,683	-94,489
2018	10,215	15,988	8,450	7,434	279	14,753	57,119	81,603	13,973	4,036	2,256	3,453	16,522	1,653	123,496	-66,377
2019	10,783	14,935	8,552	7,508	282	12,724	54,784	92,300	14,111	4,077	2,279	3,453	15,652	1,640	133,511	-78,726
2020	9,473	9,022	2,379	7,584	285	12,695	41,437	99,557	14,250	4,117	2,302	3,453	14,131	1,623	139,432	-97,995
2021	21,833	26,003	22,367	7,659	286	14,664	92,813	94,098	14,304	4,159	2,325	3,453	13,538	1,618	133,494	-40,681
2022	19,734	20,914	23,066	7,736	287	14,634	86,371	90,148	14,358	4,200	2,348	3,453	14,004	1,624	130,135	-43,764
2023	65,415	155,375	33,287	7,813	288	14,603	276,781	83,879	14,414	4,242	2,371	3,453	17,977	1,796	128,131	148,650
2024	10,216	8,969	2,266	7,892	289	12,572	42,203	90,047	14,470	4,285	2,395	3,453	17,936	1,725	134,310	-92,106
2025	66,292	192,795	32,908	7,540	291	14,971	314,797	78,706	14,527	4,327	2,419	3,453	22,830	1,852	128,114	186,683
2026	20,949	26,650	26,879	7,620	293	12,938	95,330	91,664	14,672	4,371	2,443	3,453	23,840	1,814	142,256	-46,926
2027	38,678	86,848	31,975	7,701	296	12,906	178,403	92,180	14,817	4,414	2,468	3,453	24,758	1,858	143,947	34,456
2028	61,239	141,485	30,449	7,782	299	12,873	254,128	79,599	14,962	4,459	2,492	3,453	29,078	1,929	135,972	118,156
2029	11,219	9,161	1,968	7,864	302	12,840	43,354	104,896	15,109	4,503	2,517	3,453	25,642	1,784	157,904	-114,550
2030	18,467	20,540	19,386	7,947	305	12,817	79,462	95,843	15,257	4,548	2,542	3,453	21,481	1,723	144,847	-65,385
2031	22,332	22,787	25,657	8,031	308	12,772	91,887	95,910	15,405	4,594	2,568	3,453	19,561	1,690	143,181	-51,293
2032	10,370	9,152	2,170	8,115	311	12,727	42,845	100,467	15,555	4,640	2,593	3,453	17,168	1,669	145,544	-102,699
2033	15,647	13,611	12,112	8,201	314	12,682	62,567	88,509	15,705	4,686	2,619	3,453	15,728	1,648	132,348	-69,781
2034	10,491	8,612	2,480	8,287	317	12,636	42,823	103,107	15,856	4,733	2,646	3,453	14,463	1,635	145,892	-103,068
2035	79,269	198,531	31,526	8,374	320	14,589	332,610	78,157	16,008	4,780	2,672	3,453	19,924	1,809	126,803	205,807
2036	26,896	26,186	20,964	8,462	323	12,543	95,374	89,220	16,161	4,828	2,699	3,453	21,185	1,741	139,286	-43,912
2037	10,279	8,756	1,542	8,551	326	12,495	41,950	115,206	16,316	4,876	2,726	3,453	18,153	1,671	162,400	-120,451
2038	25,569	28,795	33,202	8,641	329	12,447	108,984	106,672	16,471	4,925	2,753	3,453	16,890	1,665	152,829	-43,845
2039	12,190	9,071	3,225	8,732	333	14,399	47,950	115,124	16,627	4,974	2,781	3,453	15,167	1,635	159,761	-111,812
2040	38,297	64,445	25,902	8,823	336	14,350	152,153	88,984	16,784	5,024	2,808	3,453	15,672	1,689	134,414	17,739

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 5A1 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average (Alternative 5A1)	24,916	47,955	17,262	7,841	297	13,618	111,890	90,922	14,870	4,386	2,452	3,453	19,040	1,720	136,843	-24,953
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	112	0	0	0	12,377	12,488	32	0	0	0	0	4,564	0	4,597	7,891

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model output: Calculated based on calibrated streambed conductance, model-generated surface flows and groundwater elevations for Alternative 5A1 Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
 For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
 Updated Baseline Run assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being discharged to Salinas River. Alternative 5A1 assumes this amount of water is recharged at a new 90-acre percolation basin (see Figure 37 and Table 8).
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
 Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
 Alternative 5A1 assumes average of 12,377 acre-ft/yr of Nacimiento Project water being recharged to a new 90-acre percolation basin (see Figure 37 and Table 8).
- [7] = [1] + [2] + [3] + [4] + [5] + [6]
- [8] Groundwater predictive model results: Based on calculated water demands for water year 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
- [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
- [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ET zone.
 Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [13] Calculated based on the results from the groundwater model Alternative 5A1 Run.
- [14] Calculated based on the results from the groundwater model Alternative 5A1 Run.
- [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
- [16] = [7] - [15]

^a Equals the difference between Alternative 5A1 and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 5A2 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	33,097	20,692	7,003	265	24,974	98,757	71,551	13,229	3,802	2,125	3,453	18,667	1,689	114,517	-15,760
2013	46,817	130,318	33,827	7,073	267	25,594	243,896	68,020	13,340	3,840	2,147	3,453	25,514	1,870	118,183	125,713
2014	7,735	14,115	4,194	7,144	269	24,482	57,938	90,416	13,451	3,879	2,168	3,453	23,345	1,773	138,486	-80,548
2015	7,245	11,764	3,282	7,216	271	26,493	56,271	83,986	13,564	3,918	2,190	3,453	20,001	1,688	128,799	-72,527
2016	26,507	70,202	33,872	7,288	274	25,768	163,910	75,604	13,699	3,957	2,212	3,453	21,842	1,737	122,504	41,406
2017	5,687	9,554	2,028	7,361	277	25,739	50,645	91,275	13,836	3,996	2,234	3,453	19,855	1,671	136,320	-85,674
2018	10,215	15,317	8,450	7,434	279	25,711	67,406	81,603	13,973	4,036	2,256	3,453	18,206	1,653	125,180	-57,774
2019	10,783	14,273	8,552	7,508	282	23,681	65,080	92,299	14,111	4,077	2,279	3,453	17,376	1,640	135,234	-70,154
2020	9,473	8,421	2,379	7,584	285	23,652	51,794	99,556	14,250	4,117	2,302	3,453	15,871	1,623	141,171	-89,377
2021	21,833	25,224	22,367	7,659	286	25,622	102,991	94,129	14,304	4,159	2,325	3,453	15,306	1,622	135,296	-32,304
2022	19,734	20,039	23,066	7,736	287	25,591	96,454	90,176	14,358	4,200	2,348	3,453	15,867	1,630	132,032	-35,578
2023	65,415	154,128	33,287	7,813	288	25,561	286,492	83,899	14,414	4,242	2,371	3,453	20,053	1,798	130,230	156,262
2024	10,216	8,321	2,266	7,892	289	23,529	52,513	90,070	14,470	4,285	2,395	3,453	20,042	1,726	136,441	-83,927
2025	66,292	191,369	32,908	7,540	291	25,928	324,328	78,732	14,527	4,327	2,419	3,453	25,119	1,853	130,431	193,897
2026	20,949	25,906	26,879	7,620	293	23,896	105,543	91,681	14,672	4,371	2,443	3,453	26,181	1,815	144,615	-39,072
2027	38,678	85,788	31,975	7,701	296	23,863	188,301	92,218	14,817	4,414	2,468	3,453	27,185	1,859	146,413	41,887
2028	61,239	140,105	30,449	7,782	299	23,831	263,706	79,608	14,962	4,459	2,492	3,453	31,671	1,930	138,575	125,130
2029	11,219	8,496	1,968	7,864	302	23,797	53,646	104,946	15,109	4,503	2,517	3,453	28,148	1,784	160,460	-106,814
2030	18,467	19,604	19,386	7,947	305	23,774	89,483	95,910	15,257	4,548	2,542	3,453	24,027	1,727	147,463	-57,980
2031	22,332	21,846	25,657	8,031	308	23,730	101,903	95,926	15,405	4,594	2,568	3,453	22,136	1,700	145,782	-43,879
2032	10,370	8,421	2,170	8,115	311	23,685	53,072	100,468	15,555	4,640	2,593	3,453	19,708	1,671	148,088	-95,016
2033	15,647	12,778	12,112	8,201	314	23,639	72,691	88,516	15,705	4,686	2,619	3,453	18,292	1,649	134,921	-62,229
2034	10,491	7,848	2,480	8,287	317	23,593	53,017	103,109	15,856	4,733	2,646	3,453	16,993	1,635	148,425	-95,407
2035	79,269	196,525	31,526	8,374	320	25,547	341,562	78,157	16,008	4,780	2,672	3,453	22,824	1,811	129,704	211,858
2036	26,896	25,215	20,964	8,462	323	23,500	105,361	89,220	16,161	4,828	2,699	3,453	24,148	1,743	142,251	-36,890
2037	10,279	8,002	1,542	8,551	326	23,453	52,153	115,206	16,316	4,876	2,726	3,453	20,944	1,672	165,191	-113,038
2038	25,569	27,629	33,202	8,641	329	23,405	118,775	106,670	16,471	4,925	2,753	3,453	19,682	1,666	155,619	-36,844
2039	12,190	8,314	3,225	8,732	333	25,357	58,151	115,124	16,627	4,974	2,781	3,453	17,897	1,636	162,492	-104,341
2040	38,297	62,864	25,902	8,823	336	25,308	161,530	88,984	16,784	5,024	2,808	3,453	18,531	1,690	137,274	24,256

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 5A2 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average (Alternative 5A2)	24,916	47,086	17,262	7,841	297	24,576	121,978	90,933	14,870	4,386	2,452	3,453	21,222	1,723	139,038	-17,059
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	-758	0	0	0	23,335	22,577	43	0	0	0	0	6,746	3	6,792	15,785

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model output: Calculated based on calibrated streambed conductance, model-generated surface flows and groundwater elevations for Alternative 5A2 Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
 For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
 Updated Baseline Run assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being discharged to Salinas River. For Alternative 5A2, this amount of water is recharged to a new 90-acre percolation basin under Alternative 5A1 (see Figure 37 and Table 8).
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
 Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
 Alternative 5A1 assumes average of 12,377 acre-ft/yr of Nacimiento Project water being recharged to a new 90-acre percolation basin (see Figure 37 and Table 8).
 Alternative 5A2 assumes average of 3,653 acre-ft/yr of Nacimiento Project water being recharged to a new 20-acre percolation basin and 7,305 acre-ft/yr to a second new 40-acre percolation basin (see Figure 37 and Table 8).
- [7] = [1] + [2] + [3] + [4] + [5] + [6]
- [8] Groundwater predictive model results: Based on calculated water demands for water years 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
- [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
- [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ET zone.
 Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [13] Calculated based on the results from the groundwater model Alternative 5A2 Run.
- [14] Calculated based on the results from the groundwater model Alternative 5A2 Run.
- [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
- [16] = [7] - [15]

^a Equals the difference between Alternative 5A2 and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 5B1 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	INFLOW								OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	SWP Water Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	TOTAL OUTFLOW	
	[acre-ft]								[acre-ft]								
2012	12,726	33,342	20,692	7,003	265	14,016	3,203	91,247	71,551	13,229	3,802	2,125	3,453	17,780	1,689	113,630	-22,383
2013	46,817	130,824	33,827	7,073	267	14,636	3,203	236,647	68,021	13,340	3,840	2,147	3,453	24,195	1,869	116,865	119,782
2014	7,735	14,438	4,194	7,144	269	13,524	3,203	50,506	90,417	13,451	3,879	2,168	3,453	21,947	1,773	137,088	-86,582
2015	7,245	12,148	3,282	7,216	271	15,535	3,203	48,900	83,987	13,564	3,918	2,190	3,453	18,502	1,688	127,300	-78,400
2016	26,507	70,792	33,872	7,288	274	14,810	3,203	156,745	75,605	13,699	3,957	2,212	3,453	20,263	1,737	120,925	35,821
2017	5,687	10,061	2,028	7,361	277	14,781	3,203	43,397	91,276	13,836	3,996	2,234	3,453	18,220	1,671	134,685	-91,288
2018	10,215	15,987	8,450	7,434	279	14,753	3,203	60,321	81,603	13,973	4,036	2,256	3,453	16,523	1,653	123,497	-63,176
2019	10,783	14,935	8,552	7,508	282	12,724	3,203	57,987	92,300	14,111	4,077	2,279	3,453	15,653	1,640	133,511	-75,524
2020	9,473	9,022	2,379	7,584	285	12,695	3,203	44,639	99,557	14,250	4,117	2,302	3,453	14,132	1,623	139,433	-94,794
2021	21,833	26,003	22,367	7,659	286	14,664	3,203	96,016	94,098	14,304	4,159	2,325	3,453	13,539	1,618	133,494	-37,478
2022	19,734	20,914	23,066	7,736	287	14,634	3,203	89,573	90,148	14,358	4,200	2,348	3,453	14,005	1,624	130,136	-40,562
2023	65,415	155,367	33,287	7,813	288	14,603	3,203	279,976	83,879	14,414	4,242	2,371	3,453	17,977	1,796	128,132	151,844
2024	10,216	8,969	2,266	7,892	289	12,572	3,203	45,406	90,047	14,470	4,285	2,395	3,453	17,936	1,725	134,310	-88,904
2025	66,292	192,351	32,908	7,540	291	14,971	3,203	317,556	78,706	14,527	4,327	2,419	3,453	22,846	1,852	128,130	189,426
2026	20,949	26,648	26,879	7,620	293	12,938	3,203	98,530	91,664	14,672	4,371	2,443	3,453	23,842	1,814	142,258	-43,728
2027	38,678	86,189	31,975	7,701	296	12,906	3,203	180,947	92,180	14,817	4,414	2,468	3,453	24,839	1,858	144,028	36,919
2028	61,239	140,396	30,449	7,782	299	12,873	3,203	256,242	79,599	14,962	4,459	2,492	3,453	29,312	1,929	136,207	120,035
2029	11,219	9,168	1,968	7,864	302	12,840	3,203	46,562	104,896	15,109	4,503	2,517	3,453	25,660	1,784	157,922	-111,359
2030	18,467	20,539	19,386	7,947	305	12,817	3,203	82,663	95,843	15,257	4,548	2,542	3,453	21,487	1,724	144,853	-62,190
2031	22,332	22,786	25,657	8,031	308	12,772	3,203	95,089	95,910	15,405	4,594	2,568	3,453	19,565	1,690	143,185	-48,096
2032	10,370	9,152	2,170	8,115	311	12,727	3,203	46,047	100,467	15,555	4,640	2,593	3,453	17,171	1,669	145,548	-99,500
2033	15,647	13,611	12,112	8,201	314	12,682	3,203	65,769	88,509	15,705	4,686	2,619	3,453	15,731	1,648	132,351	-66,582
2034	10,491	8,613	2,480	8,287	317	12,636	3,203	46,027	103,107	15,856	4,733	2,646	3,453	14,466	1,635	145,895	-99,868
2035	79,269	198,497	31,526	8,374	320	14,589	3,203	335,778	78,157	16,008	4,780	2,672	3,453	19,928	1,809	126,807	208,971
2036	26,896	26,185	20,964	8,462	323	12,543	3,203	98,576	89,220	16,161	4,828	2,699	3,453	21,189	1,741	139,291	-40,715
2037	10,279	8,755	1,542	8,551	326	12,495	3,203	45,152	115,206	16,316	4,876	2,726	3,453	18,157	1,671	162,405	-117,253
2038	25,569	28,793	33,202	8,641	329	12,447	3,203	112,184	106,672	16,471	4,925	2,753	3,453	16,895	1,665	152,833	-40,649
2039	12,190	9,070	3,225	8,732	333	14,399	3,203	51,152	115,124	16,627	4,974	2,781	3,453	15,171	1,635	159,766	-108,614
2040	38,297	64,442	25,902	8,823	336	14,350	3,203	155,352	88,984	16,784	5,024	2,808	3,453	15,677	1,689	134,419	20,933

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 5B1 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	INFLOW								OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	SWP Water Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	TOTAL OUTFLOW	
[acre-ft]								[acre-ft]								[acre-ft]	
Average (Alternative 5B1)	24,916	47,862	17,262	7,841	297	13,618	3,203	115,000	90,922	14,870	4,386	2,452	3,453	19,055	1,720	136,859	-21,859
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	0	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	19	0	0	0	12,377	3,203	15,598	32	0	0	0	0	4,579	0	4,613	10,985

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model output: Calculated based on calibrated streambed conductance, model-generated surface flows and groundwater elevations for Alternative 5B1 Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
Alternative 5A1 assumes average of 12,377 acre-ft/yr of Nacimiento Project water being recharged to a new 90-acre percolation basin (see Figure 37 and Table 8).
- [7] Alternative 5B2 assumes average of 3,203 acre-ft/yr of SWP water being recharged to a new 35-acre percolation basin in the Creston Sub-Area (see Figure 37 and Table 8).
- [8] = [1] + [2] + [3] + [4] + [5] + [6] + [7]
- [9] Groundwater predictive model results: Based on calculated water demands for water years 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
- [10] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [13] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [14] Calculated based on the results from the groundwater model Alternative 5B1 Run.
- [15] Calculated based on the results from the groundwater model Alternative 5B1 Run.
- [16] = [9] + [10] + [11] + [12] + [13] + [14] + [15]
- [17] = [8] - [16]

^a Equals the difference between Alternative 5B1 and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 5B2 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	INFLOW								OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	SWP Water Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	TOTAL OUTFLOW	
	[acre-ft]								[acre-ft]								
2012	12,726	33,097	20,692	7,003	265	24,974	3,203	101,959	71,551	13,229	3,802	2,125	3,453	18,667	1,689	114,517	-12,557
2013	46,817	130,122	33,827	7,073	267	25,594	3,203	246,903	68,020	13,340	3,840	2,147	3,453	25,540	1,870	118,209	128,694
2014	7,735	14,115	4,194	7,144	269	24,482	3,203	61,140	90,416	13,451	3,879	2,168	3,453	23,346	1,773	138,487	-77,346
2015	7,245	11,764	3,282	7,216	271	26,493	3,203	59,474	83,986	13,564	3,918	2,190	3,453	20,001	1,688	128,799	-69,325
2016	26,507	69,938	33,872	7,288	274	25,768	3,203	166,848	75,604	13,699	3,957	2,212	3,453	21,857	1,737	122,518	44,330
2017	5,687	9,554	2,028	7,361	277	25,739	3,203	53,848	91,275	13,836	3,996	2,234	3,453	19,856	1,671	136,321	-82,474
2018	10,215	15,317	8,450	7,434	279	25,711	3,203	70,608	81,603	13,973	4,036	2,256	3,453	18,207	1,653	125,181	-54,572
2019	10,783	14,273	8,552	7,508	282	23,681	3,203	68,282	92,299	14,111	4,077	2,279	3,453	17,377	1,640	135,235	-66,952
2020	9,473	8,421	2,379	7,584	285	23,652	3,203	54,997	99,556	14,250	4,117	2,302	3,453	15,871	1,623	141,172	-86,175
2021	21,833	25,224	22,367	7,659	286	25,622	3,203	106,194	94,129	14,304	4,159	2,325	3,453	15,306	1,622	135,296	-29,102
2022	19,734	20,039	23,066	7,736	287	25,591	3,203	99,656	90,176	14,358	4,200	2,348	3,453	15,867	1,630	132,032	-32,376
2023	65,415	154,120	33,287	7,813	288	25,561	3,203	289,687	83,899	14,414	4,242	2,371	3,453	20,053	1,798	130,230	159,457
2024	10,216	8,321	2,266	7,892	289	23,529	3,203	55,716	90,070	14,470	4,285	2,395	3,453	20,042	1,726	136,441	-80,725
2025	66,292	190,921	32,908	7,540	291	25,928	3,203	327,083	78,732	14,527	4,327	2,419	3,453	25,136	1,853	130,447	196,635
2026	20,949	25,905	26,879	7,620	293	23,896	3,203	108,745	91,681	14,672	4,371	2,443	3,453	26,183	1,815	144,617	-35,872
2027	38,678	85,126	31,975	7,701	296	23,863	3,203	190,841	92,218	14,817	4,414	2,468	3,453	27,270	1,859	146,497	44,344
2028	61,239	139,006	30,449	7,782	299	23,831	3,203	265,809	79,608	14,962	4,459	2,492	3,453	31,913	1,931	138,817	126,992
2029	11,219	8,506	1,968	7,864	302	23,797	3,203	56,858	104,946	15,109	4,503	2,517	3,453	28,166	1,785	160,479	-103,620
2030	18,467	19,602	19,386	7,947	305	23,774	3,203	92,684	95,910	15,257	4,548	2,542	3,453	24,033	1,727	147,470	-54,786
2031	22,332	21,845	25,657	8,031	308	23,730	3,203	105,105	95,926	15,405	4,594	2,568	3,453	22,140	1,700	145,786	-40,681
2032	10,370	8,421	2,170	8,115	311	23,685	3,203	56,274	100,468	15,555	4,640	2,593	3,453	19,712	1,671	148,092	-91,818
2033	15,647	12,778	12,112	8,201	314	23,639	3,203	75,893	88,516	15,705	4,686	2,619	3,453	18,296	1,649	134,924	-59,031
2034	10,491	7,848	2,480	8,287	317	23,593	3,203	56,220	103,109	15,856	4,733	2,646	3,453	16,996	1,636	148,428	-92,208
2035	79,269	196,495	31,526	8,374	320	25,547	3,203	344,733	78,157	16,008	4,780	2,672	3,453	22,829	1,811	129,709	215,024
2036	26,896	25,214	20,964	8,462	323	23,500	3,203	108,562	89,220	16,161	4,828	2,699	3,453	24,153	1,743	142,257	-33,694
2037	10,279	8,001	1,542	8,551	326	23,453	3,203	55,355	115,206	16,316	4,876	2,726	3,453	20,948	1,672	165,196	-109,841
2038	25,569	27,628	33,202	8,641	329	23,405	3,203	121,977	106,670	16,471	4,925	2,753	3,453	19,687	1,666	155,624	-33,648
2039	12,190	8,314	3,225	8,732	333	25,357	3,203	61,353	115,124	16,627	4,974	2,781	3,453	17,902	1,636	162,496	-101,144
2040	38,297	62,860	25,902	8,823	336	25,308	3,203	164,728	88,984	16,784	5,024	2,808	3,453	18,537	1,690	137,280	27,448

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 5B2 (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	INFLOW								OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	SWP Water Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	TOTAL OUTFLOW	
[acre-ft]								[acre-ft]								[acre-ft]	
Average (Alternative 5B2)	24,916	46,992	17,262	7,841	297	24,576	3,203	125,087	90,933	14,870	4,386	2,452	3,453	21,238	1,723	139,054	-13,966
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	0	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	-851	0	0	0	23,335	3,203	25,686	43	0	0	0	0	6,761	3	6,808	18,878

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model output: Calculated based on calibrated streambed conductance, model-generated surface flows and groundwater elevations for Alternative 5B2 Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
Alternative 5A1 assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being recharged to a new 90-acre percolation basin in the Estrella Sub-Area (see Figure 37 and Table 8).
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
Alternative 5A1 assumes average of 12,377 acre-ft/yr of Nacimiento Project water being recharged to a new 90-acre percolation basin (see Figure 37 and Table 8).
Alternative 5A2 assumes average of 3,653 acre-ft/yr of Nacimiento Project water being recharged to a new 20-acre percolation basin and 7,305 acre-ft/yr to a second new 40-acre percolation basin (see Figure 37 and Table 8).
- [7] Alternative 5B1 assumes average of 3,203 acre-ft/yr of SWP water being recharged to a new 35-acre percolation basin in the Creston Sub-Area (see Figure 37 and Table 8).
- [8] = [1] + [2] + [3] + [4] + [5] + [6] + [7]
- [9] Groundwater predictive model results: Based on calculated water demands for water years 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
- [10] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [13] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [14] Calculated based on the results from the groundwater model Alternative 5B2 Run.
- [15] Calculated based on the results from the groundwater model Alternative 5B2 Run.
- [16] = [9] + [10] + [11] + [12] + [13] + [14] + [15]
- [17] = [8] - [16]

^a Equals the difference between Alternative 5B2 and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 6A (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	33,253	20,692	7,003	265	14,016	87,956	71,551	13,229	3,802	2,125	3,453	15,512	1,689	111,362	-23,406
2013	46,817	132,484	33,827	7,073	267	14,636	235,104	68,020	13,340	3,840	2,147	3,453	19,692	1,868	112,359	122,745
2014	7,735	13,449	4,194	7,144	269	13,524	46,315	90,416	13,451	3,879	2,168	3,453	17,207	1,772	132,346	-86,031
2015	7,245	10,282	3,282	7,216	271	15,535	43,831	83,986	13,564	3,918	2,190	3,453	13,511	1,687	122,308	-78,477
2016	26,507	71,949	33,872	7,288	274	14,810	154,700	75,604	13,699	3,957	2,212	3,453	15,391	1,736	116,051	38,649
2017	5,687	9,150	2,028	7,361	277	14,781	39,283	91,275	13,836	3,996	2,234	3,453	13,938	1,670	130,402	-91,119
2018	10,215	15,558	8,450	7,434	279	14,753	56,689	81,603	13,973	4,036	2,256	3,453	13,051	1,653	120,024	-63,335
2019	10,783	14,350	8,552	7,508	282	12,724	54,199	92,299	14,111	4,077	2,279	3,453	12,972	1,639	130,829	-76,630
2020	9,473	7,865	2,379	7,584	285	12,695	40,280	99,499	14,250	4,117	2,302	3,453	11,958	1,623	137,200	-96,921
2021	21,833	26,288	22,367	7,659	286	14,664	93,098	94,015	14,304	4,159	2,325	3,453	11,580	1,618	131,452	-38,353
2022	19,734	21,487	23,066	7,736	287	14,634	86,944	90,085	14,358	4,200	2,348	3,453	12,351	1,624	128,419	-41,475
2023	65,415	158,567	33,287	7,813	288	14,603	279,974	83,779	14,414	4,242	2,371	3,453	16,882	1,795	126,936	153,038
2024	10,216	8,040	2,266	7,892	289	12,572	41,275	89,948	14,470	4,285	2,395	3,453	17,637	1,724	133,911	-92,636
2025	66,292	196,290	32,908	7,540	291	14,971	318,292	78,599	14,527	4,327	2,419	3,453	22,952	1,851	128,128	190,163
2026	20,949	27,944	26,879	7,620	293	12,938	96,623	91,544	14,672	4,371	2,443	3,453	24,536	1,814	142,831	-46,208
2027	38,678	90,056	31,975	7,701	296	12,906	181,612	92,106	14,817	4,414	2,468	3,453	25,016	1,857	144,130	37,482
2028	61,239	143,766	30,449	7,782	299	12,873	256,409	79,512	14,962	4,459	2,492	3,453	30,063	1,929	136,870	119,539
2029	11,219	8,080	1,968	7,864	302	12,840	42,272	104,808	15,109	4,503	2,517	3,453	26,773	1,783	158,947	-116,675
2030	18,467	21,541	19,386	7,947	305	12,817	80,462	95,843	15,257	4,548	2,542	3,453	21,978	1,723	145,344	-64,882
2031	22,332	23,883	25,657	8,031	308	12,772	92,983	95,907	15,405	4,594	2,568	3,453	19,773	1,690	143,389	-50,406
2032	10,370	8,105	2,170	8,115	311	12,727	41,798	100,454	15,555	4,640	2,593	3,453	17,247	1,669	145,610	-103,812
2033	15,647	13,151	12,112	8,201	314	12,682	62,106	88,509	15,705	4,686	2,619	3,453	15,543	1,648	132,163	-70,057
2034	10,491	7,543	2,480	8,287	317	12,636	41,755	103,107	15,856	4,733	2,646	3,453	14,131	1,634	145,559	-103,804
2035	79,269	201,914	31,526	8,374	320	14,589	335,993	78,150	16,008	4,780	2,672	3,453	20,048	1,809	126,920	209,073
2036	26,896	27,142	20,964	8,462	323	12,543	96,330	89,220	16,161	4,828	2,699	3,453	21,972	1,741	140,073	-43,743
2037	10,279	7,618	1,542	8,551	326	12,495	40,812	115,201	16,316	4,876	2,726	3,453	18,581	1,671	162,823	-122,012
2038	25,569	28,838	33,202	8,641	329	12,447	109,026	106,667	16,471	4,925	2,753	3,453	16,725	1,665	152,659	-43,633
2039	12,190	7,932	3,225	8,732	333	14,399	46,811	115,120	16,627	4,974	2,781	3,453	14,625	1,635	159,215	-112,404
2040	38,297	65,583	25,902	8,823	336	14,350	153,290	88,974	16,784	5,024	2,808	3,453	14,655	1,689	133,388	19,903

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 6A (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average (Alternative 6A)	24,916	48,348	17,262	7,841	297	13,618	112,284	90,890	14,870	4,386	2,452	3,453	17,803	1,720	135,574	-23,291
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	505	0	0	0	12,377	12,882	0	0	0	0	0	3,327	0	3,328	9,554

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model output: Calculated based on calibrated streambed conductance, model-generated surface flows and groundwater elevations for Alternative 6A Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
Updated Baseline Run assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being discharged to Salinas River. Alternative 6A assumes this amount of water being recharged to three new 30-acre percolation basins (see Figure 38 and Table 9).
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
Alternative 6A assumes average of 12,377 acre-ft/yr of Nacimiento Project water being recharged to three new 30-acre percolation basins (see Figure 38 and Table 9).
- [7] = [1] + [2] + [3] + [4] + [5] + [6]
- [8] Groundwater predictive model results: Based on calculated water demands for water year 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
- [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
- [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [13] Calculated based on the results from the ground water model Alternative 6A Run.
- [14] Calculated based on the results from the ground water model Alternative 6A Run.
- [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
- [16] = [7] - [15]

^a Equals the difference between Alternative 6A and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 6B (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	INFLOW								OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	SWP Water Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	TOTAL OUTFLOW	
[acre-ft]								[acre-ft]								[acre-ft]	
2012	12,726	33,561	20,692	7,003	265	14,016	16,436	104,700	71,551	13,229	3,802	2,125	3,453	19,452	1,689	115,302	-10,602
2013	46,817	132,796	33,827	7,073	267	14,636	16,436	251,853	68,020	13,340	3,840	2,147	3,453	28,049	1,869	120,718	131,136
2014	7,735	14,242	4,194	7,144	269	13,524	16,436	63,544	90,416	13,451	3,879	2,168	3,453	27,084	1,773	142,224	-78,680
2015	7,245	12,113	3,282	7,216	271	15,535	16,436	62,099	83,986	13,564	3,918	2,190	3,453	24,587	1,688	133,385	-71,286
2016	26,507	72,357	33,872	7,288	274	14,810	16,436	171,544	75,604	13,699	3,957	2,212	3,453	27,456	1,738	128,118	43,426
2017	5,687	11,057	2,028	7,361	277	14,781	16,436	57,627	91,275	13,836	3,996	2,234	3,453	26,249	1,671	142,714	-85,087
2018	10,215	16,488	8,450	7,434	279	14,753	16,436	74,055	81,603	13,973	4,036	2,256	3,453	25,498	1,654	132,473	-58,418
2019	10,783	15,357	8,552	7,508	282	12,724	16,436	71,643	92,299	14,111	4,077	2,279	3,453	25,500	1,641	143,359	-71,716
2020	9,473	8,821	2,379	7,584	285	12,695	16,436	57,673	99,499	14,250	4,117	2,302	3,453	24,520	1,623	149,763	-92,091
2021	21,833	26,988	22,367	7,659	286	14,664	16,436	110,234	94,015	14,304	4,159	2,325	3,453	24,418	1,623	144,295	-34,060
2022	19,734	22,426	23,066	7,736	287	14,634	16,436	104,319	90,085	14,358	4,200	2,348	3,453	25,082	1,631	141,157	-36,838
2023	65,415	158,149	33,287	7,813	288	14,603	16,436	295,991	83,779	14,414	4,242	2,371	3,453	31,757	1,799	141,815	154,177
2024	10,216	9,093	2,266	7,892	289	12,572	16,436	58,764	89,948	14,470	4,285	2,395	3,453	31,551	1,727	147,828	-89,065
2025	66,292	195,262	32,908	7,540	291	14,971	16,436	333,700	78,599	14,527	4,327	2,419	3,453	39,464	1,855	144,645	189,055
2026	20,949	29,105	26,879	7,620	293	12,938	16,436	114,221	91,544	14,672	4,371	2,443	3,453	40,091	1,818	158,390	-44,169
2027	38,678	91,338	31,975	7,701	296	12,906	16,436	199,330	92,106	14,817	4,414	2,468	3,453	41,130	1,861	160,248	39,082
2028	61,239	142,943	30,449	7,782	299	12,873	16,436	272,022	79,512	14,962	4,459	2,492	3,453	47,388	1,933	154,199	117,823
2029	11,219	10,407	1,968	7,864	302	12,840	16,436	61,036	104,808	15,109	4,503	2,517	3,453	42,800	1,792	174,982	-113,946
2030	18,467	23,566	19,386	7,947	305	12,817	16,436	98,924	95,843	15,257	4,548	2,542	3,453	37,634	1,735	161,012	-62,088
2031	22,332	25,714	25,657	8,031	308	12,772	16,436	111,250	95,907	15,405	4,594	2,568	3,453	35,250	1,707	158,882	-47,633
2032	10,370	10,188	2,170	8,115	311	12,727	16,436	60,318	100,454	15,555	4,640	2,593	3,453	32,344	1,674	160,713	-100,395
2033	15,647	14,311	12,112	8,201	314	12,682	16,436	79,702	88,509	15,705	4,686	2,619	3,453	30,202	1,652	146,826	-67,124
2034	10,491	8,739	2,480	8,287	317	12,636	16,436	59,387	103,107	15,856	4,733	2,646	3,453	28,528	1,638	159,959	-100,571
2035	79,269	200,523	31,526	8,374	320	14,589	16,436	351,038	78,150	16,008	4,780	2,672	3,453	37,073	1,813	143,950	207,089
2036	26,896	27,931	20,964	8,462	323	12,543	16,436	113,555	89,220	16,161	4,828	2,699	3,453	38,415	1,748	156,524	-42,968
2037	10,279	9,039	1,542	8,551	326	12,495	16,436	58,669	115,201	16,316	4,876	2,726	3,453	34,163	1,674	178,409	-119,740
2038	25,569	30,425	33,202	8,641	329	12,447	16,436	127,050	106,667	16,471	4,925	2,753	3,453	32,185	1,669	168,123	-41,073
2039	12,190	9,118	3,225	8,732	333	14,399	16,436	64,433	115,120	16,627	4,974	2,781	3,453	29,477	1,638	174,069	-109,636
2040	38,297	65,460	25,902	8,823	336	14,350	16,436	169,604	88,974	16,784	5,024	2,808	3,453	30,394	1,693	149,130	20,474

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 6B (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	INFLOW								OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	SWP Water Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	TOTAL OUTFLOW	
[acre-ft]								[acre-ft]								[acre-ft]	
Average (Alternative 6B)	24,916	49,225	17,262	7,841	297	13,618	16,436	129,596	90,890	14,870	4,386	2,452	3,453	31,646	1,725	149,421	-19,825
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	0	99,401	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	1,381	0	0	0	12,377	16,436	30,195	0	0	0	0	0	17,170	5	17,175	13,019

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
 - [2] Groundwater predictive model output: Calculated based on calibrated streambed conductance, model-generated surface flows and groundwater elevations for Alternative 6B Run.
 - [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
 - [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping.
Updated Baseline Run assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being discharged to Salinas River. Alternative 6A assumes this amount of water being recharged to three new 30-acre percolation basins (see Figure 38 and Table 9).
 - [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
 - [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
Alternative 6A assumes average of 12,377 acre-ft/yr of Nacimiento Project water being recharged to three new 30-acre percolation basins (see Figure 38 and Table 9).
 - [7] Alternative 6B assumes average of 16,436 acre-ft/yr of SWP water being recharged to a new 90-acre percolation basin in the Shandon Sub-Area (see Figure 38 and Table 9).
 - [8] = [1] + [2] + [3] + [4] + [5] + [6] + [7]
 - [9] Groundwater predictive model results: Based on calculated water demands for water year 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
 - [10] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
 - [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
 - [12] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
 - [13] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
 - [14] Calculated based on the results from the ground water model Alternative 6B Run.
 - [15] Calculated based on the results from the ground water model Alternative 6B Run.
 - [16] = [9] + [10] + [11] + [12] + [13] + [14] + [15]
 - [17] = [8] - [16]
- ^a Equals the difference between Alternative 6B and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 6C (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	33,211	20,692	7,003	265	46,889	120,786	71,551	13,229	3,802	2,125	3,453	15,683	1,689	111,532	9,254
2013	46,817	132,177	33,827	7,073	267	47,509	267,670	68,020	13,340	3,840	2,147	3,453	21,546	1,868	114,214	153,456
2014	7,735	13,415	4,194	7,144	269	46,397	79,153	90,416	13,451	3,879	2,168	3,453	21,667	1,772	136,807	-57,654
2015	7,245	11,147	3,282	7,216	271	48,408	77,569	83,986	13,564	3,918	2,190	3,453	20,620	1,688	129,418	-51,849
2016	26,507	71,085	33,872	7,288	274	47,683	186,708	75,604	13,699	3,957	2,212	3,453	25,281	1,737	125,943	60,765
2017	5,687	9,989	2,028	7,361	277	47,654	72,995	91,275	13,836	3,996	2,234	3,453	26,119	1,671	142,584	-69,589
2018	10,215	15,422	8,450	7,434	279	47,626	89,425	81,603	13,973	4,036	2,256	3,453	27,480	1,654	134,454	-45,029
2019	10,783	14,294	8,552	7,508	282	45,596	87,016	92,299	14,111	4,077	2,279	3,453	29,043	1,641	146,902	-59,886
2020	9,473	7,709	2,379	7,584	285	45,567	72,996	99,499	14,250	4,117	2,302	3,453	29,034	1,623	154,277	-81,281
2021	21,833	25,948	22,367	7,659	286	47,537	125,631	94,015	14,304	4,159	2,325	3,453	29,748	1,623	149,625	-23,994
2022	19,734	21,320	23,066	7,736	287	47,506	119,650	90,085	14,358	4,200	2,348	3,453	30,924	1,631	147,000	-27,350
2023	65,415	152,866	33,287	7,813	288	47,476	307,145	83,779	14,414	4,242	2,371	3,453	38,291	1,801	148,350	158,795
2024	10,216	8,700	2,266	7,892	289	45,444	74,807	89,948	14,470	4,285	2,395	3,453	38,261	1,729	154,540	-79,732
2025	66,292	188,265	32,908	7,540	291	47,843	343,140	78,599	14,527	4,327	2,419	3,453	46,486	1,857	151,668	191,471
2026	20,949	27,360	26,879	7,620	293	45,811	128,913	91,544	14,672	4,371	2,443	3,453	46,276	1,820	164,578	-35,665
2027	38,678	88,093	31,975	7,701	296	45,778	212,521	92,106	14,817	4,414	2,468	3,453	48,005	1,863	167,125	45,396
2028	61,239	137,273	30,449	7,782	299	45,746	282,789	79,512	14,962	4,459	2,492	3,453	54,565	1,936	161,379	121,410
2029	11,219	9,662	1,968	7,864	302	45,712	76,727	104,808	15,109	4,503	2,517	3,453	49,503	1,799	181,693	-104,965
2030	18,467	21,939	19,386	7,947	305	45,689	113,733	95,843	15,257	4,548	2,542	3,453	44,816	1,738	168,197	-54,464
2031	22,332	24,107	25,657	8,031	308	45,645	126,080	95,907	15,405	4,594	2,568	3,453	42,859	1,709	166,494	-40,414
2032	10,370	8,905	2,170	8,115	311	45,600	75,471	100,454	15,555	4,640	2,593	3,453	40,257	1,676	168,628	-93,156
2033	15,647	13,163	12,112	8,201	314	45,554	94,991	88,509	15,705	4,686	2,619	3,453	38,355	1,653	154,980	-59,989
2034	10,491	8,330	2,480	8,287	317	45,508	75,414	103,107	15,856	4,733	2,646	3,453	37,083	1,639	168,516	-93,102
2035	79,269	192,191	31,526	8,374	320	47,462	359,143	78,150	16,008	4,780	2,672	3,453	46,198	1,816	153,077	206,066
2036	26,896	26,132	20,964	8,462	323	45,415	128,193	89,220	16,161	4,828	2,699	3,453	46,517	1,755	164,633	-36,440
2037	10,279	8,163	1,542	8,551	326	45,368	74,230	115,201	16,316	4,876	2,726	3,453	42,188	1,678	186,437	-112,208
2038	25,569	28,725	33,202	8,641	329	45,320	141,786	106,667	16,471	4,925	2,753	3,453	40,550	1,671	176,490	-34,705
2039	12,190	8,681	3,225	8,732	333	47,272	80,433	115,117	16,627	4,974	2,781	3,453	37,654	1,640	182,246	-101,814
2040	38,297	63,110	25,902	8,823	336	47,223	183,690	89,183	16,784	5,024	2,808	3,453	39,169	1,695	158,115	25,575

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 6C (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average (Alternative 6C)	24,916	47,289	17,262	7,841	297	46,491	144,097	90,897	14,870	4,386	2,452	3,453	36,351	1,727	154,135	-10,038
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	-554	0	0	0	45,250	44,695	7	0	0	0	0	21,875	7	21,889	22,806

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model output: Calculated based on calibrated streambed conductance, model-generated surface flows and groundwater elevations for Alternative 6C Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping.
Updated Baseline Run assumes average of 4,059 acre-ft/yr of wastewater from City of Paso Robles being discharged to Salinas River. Alternative 6A assumes this amount of water being recharged to three new 30-acre percolation basins (see Figure 38 and Table 9).
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
Alternative 6A assumes an average of 12,377 acre-ft/yr NWP to three new 30-acre percolation basins, and Alternative 6C assumes an average of 10,958 acre-ft/yr NWP to a new 60-acre percolation basin and 21,915 acre-ft/yr to a new 120-acre percolation basin (see Figure 38 and Table 9).
- [7] = [1] + [2] + [3] + [4] + [5] + [6]
- [8] Groundwater predictive model results: Based on calculated water demands for water year 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
- [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
- [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ETo zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [13] Calculated based on the results from the ground water model Alternative 6C Run.
- [14] Calculated based on the results from the ground water model Alternative 6C Run.
- [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
- [16] = [7] - [15]

^a Equals the difference between Alternative 6C and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 7A (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
2012	12,726	32,890	20,692	7,003	265	1,305	74,882	70,793	13,229	3,802	2,125	3,453	16,242	1,689	111,333	-36,451
2013	46,817	131,428	33,827	7,073	267	1,962	221,374	66,952	13,340	3,840	2,147	3,453	21,024	1,868	112,623	108,751
2014	7,735	13,151	4,194	7,144	269	888	33,380	88,889	13,451	3,879	2,168	3,453	18,386	1,772	131,999	-98,618
2015	7,245	10,464	3,282	7,216	271	2,937	31,415	82,709	13,564	3,918	2,190	3,453	14,654	1,687	122,174	-90,758
2016	26,507	70,773	33,872	7,288	274	2,250	140,963	74,325	13,699	3,957	2,212	3,453	16,410	1,736	115,792	25,172
2017	5,687	8,799	2,028	7,361	277	2,260	26,412	89,797	13,836	3,996	2,234	3,453	14,157	1,670	129,143	-102,731
2018	10,215	14,964	8,450	7,434	279	2,271	43,613	80,294	13,973	4,036	2,256	3,453	12,339	1,653	118,004	-74,391
2019	10,783	13,659	8,552	7,508	282	281	41,065	90,823	14,111	4,077	2,279	3,453	11,371	1,640	127,752	-86,686
2020	9,473	7,461	2,379	7,584	285	292	27,473	97,867	14,250	4,117	2,302	3,453	9,624	1,623	133,234	-105,762
2021	21,833	25,709	22,367	7,659	286	2,302	80,157	92,330	14,304	4,159	2,325	3,453	9,024	1,618	127,211	-47,054
2022	19,734	20,761	23,066	7,736	287	2,312	73,896	88,518	14,358	4,200	2,348	3,453	9,444	1,624	123,945	-50,049
2023	65,415	158,270	33,287	7,813	288	2,323	267,396	82,331	14,414	4,242	2,371	3,453	13,463	1,795	122,068	145,328
2024	10,216	7,531	2,266	7,892	289	333	28,527	88,481	14,470	4,285	2,395	3,453	13,295	1,724	128,102	-99,575
2025	66,292	196,092	32,908	7,540	291	2,344	305,467	77,264	14,527	4,327	2,419	3,453	18,148	1,850	121,988	183,478
2026	20,949	26,004	26,879	7,620	293	354	82,099	89,940	14,672	4,371	2,443	3,453	18,967	1,813	135,657	-53,557
2027	38,678	88,629	31,975	7,701	296	364	167,643	90,451	14,817	4,414	2,468	3,453	19,638	1,856	137,097	30,546
2028	61,239	144,370	30,449	7,782	299	375	244,515	78,138	14,962	4,459	2,492	3,453	24,090	1,927	129,522	114,993
2029	11,219	7,639	1,968	7,864	302	385	29,377	103,069	15,109	4,503	2,517	3,453	20,555	1,782	150,989	-121,612
2030	18,467	20,602	19,386	7,947	305	406	67,113	94,133	15,257	4,548	2,542	3,453	16,505	1,722	138,159	-71,046
2031	22,332	23,102	25,657	8,031	308	406	79,835	94,213	15,405	4,594	2,568	3,453	14,490	1,685	136,408	-56,572
2032	10,370	7,525	2,170	8,115	311	406	28,898	98,827	15,555	4,640	2,593	3,453	12,063	1,663	138,792	-109,895
2033	15,647	12,592	12,112	8,201	314	406	49,272	86,987	15,705	4,686	2,619	3,453	10,666	1,646	125,761	-76,490
2034	10,491	7,120	2,480	8,287	317	406	29,102	101,415	15,856	4,733	2,646	3,453	9,359	1,633	139,094	-109,992
2035	79,269	202,983	31,526	8,374	320	2,406	324,879	76,752	16,008	4,780	2,672	3,453	14,769	1,807	120,241	204,638
2036	26,896	26,343	20,964	8,462	323	406	83,395	87,599	16,161	4,828	2,699	3,453	15,991	1,739	132,471	-49,076
2037	10,279	7,169	1,542	8,551	326	406	28,274	113,220	16,316	4,876	2,726	3,453	12,905	1,670	155,165	-126,891
2038	25,569	28,335	33,202	8,641	329	406	96,482	104,716	16,471	4,925	2,753	3,453	11,800	1,664	145,781	-49,299
2039	12,190	7,571	3,225	8,732	333	2,406	34,457	113,180	16,627	4,974	2,781	3,453	10,047	1,634	152,696	-118,239
2040	38,297	65,326	25,902	8,823	336	2,406	141,089	87,388	16,784	5,024	2,808	3,453	10,620	1,688	127,765	13,325

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 7A (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
	INFLOW							OUTFLOW							Change in Groundwater Storage	
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary		TOTAL OUTFLOW
[acre-ft]							[acre-ft]							[acre-ft]		
Average of Alternative 7A	24,916	47,837	17,262	7,841	297	1,241	99,395	89,359	14,870	4,386	2,452	3,453	14,484	1,720	130,723	-31,328
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	-7	0	0	0	0	-7	-1,531	0	0	0	0	8	0	-1,523	1,516

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model output: Calculated based on calibrated streambed conductance, model-generated surface flows and groundwater elevations for Alternative 7A Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
- [7] = [1] + [2] + [3] + [4] + [5] + [6]
- [8] Groundwater predictive model results: Based on calculated water demands for water year 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
Alternative 7A assumes average of 1,531 acre-ft/yr of Nacimiento Project water being used to offset agricultural pumping (see Figure 39 and Table 10).
- [9] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
- [10] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ET zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [13] Calculated based on the results from the ground water model Alternative 7A Run.
- [14] Calculated based on the results from the ground water model Alternative 7A Run.
- [15] = [8] + [9] + [10] + [11] + [12] + [13] + [14]
- [16] = [7] - [15]

^a Equals the difference between Alternative 7A and the updated 2016 Baseline.

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 7B (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	INFLOW								OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	SWP Water Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	TOTAL OUTFLOW	
	[acre-ft]								[acre-ft]								
2012	12,726	32,885	20,692	7,003	265	1,305	1,826	76,702	69,918	13,229	3,802	2,125	3,453	16,242	1,689	110,459	-33,756
2013	46,817	130,988	33,827	7,073	267	1,962	1,826	222,761	66,121	13,340	3,840	2,147	3,453	22,031	1,868	112,799	109,962
2014	7,735	13,299	4,194	7,144	269	888	1,826	35,355	87,861	13,451	3,879	2,168	3,453	18,549	1,772	131,133	-95,778
2015	7,245	10,464	3,282	7,216	271	2,937	1,826	33,241	81,731	13,564	3,918	2,190	3,453	14,657	1,687	121,198	-87,958
2016	26,507	70,474	33,872	7,288	274	2,250	1,826	142,490	73,408	13,699	3,957	2,212	3,453	16,920	1,736	115,385	27,105
2017	5,687	8,803	2,028	7,361	277	2,260	1,826	28,242	88,777	13,836	3,996	2,234	3,453	14,168	1,670	128,134	-99,892
2018	10,215	14,964	8,450	7,434	279	2,271	1,826	45,439	79,355	13,973	4,036	2,256	3,453	12,343	1,653	117,069	-71,630
2019	10,783	13,658	8,552	7,508	282	281	1,826	42,891	89,807	14,111	4,077	2,279	3,453	11,374	1,640	126,740	-83,849
2020	9,473	7,460	2,379	7,584	285	292	1,826	29,299	96,842	14,250	4,117	2,302	3,453	9,626	1,623	132,212	-102,913
2021	21,833	25,708	22,367	7,659	286	2,302	1,826	81,982	91,265	14,304	4,159	2,325	3,453	9,026	1,618	126,148	-44,166
2022	19,734	20,760	23,066	7,736	287	2,312	1,826	75,721	87,471	14,358	4,200	2,348	3,453	9,446	1,624	122,900	-47,179
2023	65,415	158,177	33,287	7,813	288	2,323	1,826	269,129	81,342	14,414	4,242	2,371	3,453	13,620	1,795	121,236	147,892
2024	10,216	7,532	2,266	7,892	289	333	1,826	30,354	87,503	14,470	4,285	2,395	3,453	13,299	1,724	127,128	-96,774
2025	66,292	195,399	32,908	7,540	291	2,344	1,826	306,600	76,324	14,527	4,327	2,419	3,453	18,971	1,850	121,872	184,728
2026	20,949	26,087	26,879	7,620	293	354	1,826	84,008	88,899	14,672	4,371	2,443	3,453	19,204	1,813	134,853	-50,845
2027	38,678	88,062	31,975	7,701	296	364	1,826	168,902	89,347	14,817	4,414	2,468	3,453	20,544	1,856	136,898	32,004
2028	61,239	143,318	30,449	7,782	299	375	1,826	245,289	77,219	14,962	4,459	2,492	3,453	25,588	1,928	130,101	115,188
2029	11,219	8,052	1,968	7,864	302	385	1,826	31,615	102,015	15,109	4,503	2,517	3,453	21,000	1,783	150,380	-118,765
2030	18,467	20,659	19,386	7,947	305	406	1,826	68,996	93,058	15,257	4,548	2,542	3,453	16,572	1,722	137,153	-68,157
2031	22,332	23,099	25,657	8,031	308	406	1,826	81,659	93,132	15,405	4,594	2,568	3,453	14,505	1,685	135,341	-53,682
2032	10,370	7,524	2,170	8,115	311	406	1,826	30,722	97,771	15,555	4,640	2,593	3,453	12,071	1,663	137,745	-107,022
2033	15,647	12,590	12,112	8,201	314	406	1,826	51,095	85,993	15,705	4,686	2,619	3,453	10,672	1,646	124,773	-73,678
2034	10,491	7,119	2,480	8,287	317	406	1,826	30,927	100,317	15,856	4,733	2,646	3,453	9,364	1,633	138,002	-107,075
2035	79,269	202,803	31,526	8,374	320	2,406	1,826	326,525	75,843	16,008	4,780	2,672	3,453	15,067	1,807	119,631	206,894
2036	26,896	26,367	20,964	8,462	323	406	1,826	85,244	86,603	16,161	4,828	2,699	3,453	16,028	1,739	131,511	-46,266
2037	10,279	7,168	1,542	8,551	326	406	1,826	30,099	112,035	16,316	4,876	2,726	3,453	12,912	1,670	153,988	-123,889
2038	25,569	28,332	33,202	8,641	329	406	1,826	98,305	103,502	16,471	4,925	2,753	3,453	11,806	1,664	144,573	-46,269
2039	12,190	7,570	3,225	8,732	333	2,406	1,826	36,281	111,968	16,627	4,974	2,781	3,453	10,052	1,634	151,489	-115,207
2040	38,297	65,320	25,902	8,823	336	2,406	1,826	142,910	86,394	16,784	5,024	2,808	3,453	10,626	1,688	126,777	16,132

Summary of Annual Groundwater Budgets for the Paso Robles Groundwater Basin - Alternative 7B (2012-2040)

Water Year	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
	INFLOW								OUTFLOW								Change in Groundwater Storage
	Deep Percolation of Direct Precipitation and Return Flow from Applied Irrigation Water	Deep Percolation of Streambed Seepage	Subsurface Inflow Through the Basin Boundary	Deep Percolation of Discharged Treated Wastewater Effluent	Deep Percolation of Urban Water and Sewer Pipe Leakage	Nacimiento Water Project Supplies	SWP Water Supplies	TOTAL INFLOW	Agricultural Groundwater Pumping	Municipal Groundwater Pumping	Private Domestic Well Groundwater Pumping	Small Commercial Groundwater Pumping	ET by Riparian Vegetation	Groundwater Discharge to Rivers	Subsurface Outflow through Basin Boundary	TOTAL OUTFLOW	
[acre-ft]								[acre-ft]								[acre-ft]	
Average of Alternative 7B	24,916	47,746	17,262	7,841	297	1,241	1,826	101,130	88,339	14,870	4,386	2,452	3,453	14,699	1,720	129,918	-28,788
Average (2016 Baseline)	24,916	47,843	17,262	7,841	297	1,241	0	99,402	90,890	14,870	4,386	2,452	3,453	14,476	1,720	132,246	-32,844
Difference ^a	0	-97	0	0	0	0	1,826	1,729	-2,551	0	0	0	0	223	0	-2,328	4,057

Notes:

- [1] Groundwater predictive model input: Calculated based on the results of deep percolation within the Paso Robles Basin from the calibrated watershed model.
- [2] Groundwater predictive model output: Calculated based on calibrated streambed conductance, model-generated surface flows and groundwater elevations for Alternative 7B Run.
- [3] Groundwater predictive model input: Calculated based on the results of recharge (including deep percolation and streambed seepage) from the calibrated watershed model less the agricultural and private domestic groundwater pumping for the area outside the Paso Robles Basin but within the watershed tributary to the Paso Robles Basin.
- [4] Groundwater predictive model input: Based on measured data for water year 2011 and assumed 1% annual growth.
For 2025-2040, assumes 430 acre-ft/yr of treated wastewater effluent is reallocated by City of Paso Robles to offset municipal pumping (Demand from 2014 RWMP Table 3-4; starting in 2025 [from 2010 UWMP]).
- [5] Groundwater predictive model input: Assumed to be 2% of urban water and sewer pipes based on Paso Robles 2010 UWMP.
- [6] Groundwater predictive model input: Based on measured and projected data provided by Atascadero Mutual Water Company and Templeton Community Services District (see Table 2).
Does not include projected NWP supplies available for City of Paso Robles to offset municipal pumping.
- [7] Alternative 7B assumes average of 1,826 acre-ft/yr of SWP water being recharged to a new percolation basin in the Creston Sub-Area (see Figure 39 and Table 10).
- [8] = [1] + [2] + [3] + [4] + [5] + [6] + [7]
- [9] Groundwater predictive model results: Based on calculated water demands for water year 2012 through 2040 under baseline conditions. Agricultural groundwater pumping values vary from the total applied water values presented in Table 30 of the 2014 model update report. The variations are primarily associated with "dry" model cells (which occurs when estimated pumping exceeds available water simulated by the model), and to a lesser degree from inherent model convergence errors.
Alternative 7A assumes average of 1,531 acre-ft/yr of Nacimiento Project Water being used to offset agricultural pumping (see Figure 39 and Table 10).
Alternative 7B assumes average of 1,020 acre-ft/yr of SWP water being used to offset agricultural pumping (see Figure 39 and Table 10).
- [10] Groundwater predictive model input: Municipal pumping for Atascadero Mutual Water Company, Templeton Community Services District and San Miguel Community Services District are based on calculated basin-wide municipal water demands for water year 2011 and assumed 1% annual growth. Municipal pumping for City of Paso Robles is based on projected values (see Table 3) provided by the City.
- [11] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [12] Groundwater predictive model input: Based on calculated water demands for water year 2011 and assumed 1% annual growth.
- [13] Groundwater model input: Based on assumed constant water demand of 0.8 feet/acre per year in Paso Robles ET zone (same as assumed value in original model) and adjusted downward to 0.75 feet/acre per year in Atascadero ET zone.
Riparian coverage based on map titled "Riparian Vegetation in Hardwood Rangelands" (California Department of Forestry and Fire Protection, 2009). Map is based on 1990 LANDSAT TM imagery.
- [14] Calculated based on the results from the ground water model Alternative 7B Run.
- [15] Calculated based on the results from the ground water model Alternative 7B Run.
- [16] = [9] + [10] + [11] + [12] + [13] + [14] + [15]
- [17] = [8] - [16]

^a Equals the difference between Alternative 7B and the updated 2016 Baseline.