**Table 1**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | OUTFLOW | | | | | | | | |
| | 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 | Change in Groundwater Storage |
| | [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 |

**Table 1**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | OUTFLOW | | | | | | | | |
| | 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 | Change in Groundwater Storage |
| | [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]

**Table 2**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] |
|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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** |

**Table 2**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] |
|---|---|---|---|---|---|---|---|---|---|
| Water Year | Nacimiento Water Supplies* | | | Treated Wastewater Supplies | | | | | |
| | Templeton CSD (T4) Discharge to Existing Percolation Ponds | Atascadero MWC (T6) Discharge to Existing Percolation Ponds | 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 |
| | [acre-ft] | | | [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]

**Table 3**

## Municipal Pumping Assumptions for Updated Baseline (2012-2040)

| Water Year | Atascadero MWC Total | City of Paso Robles | | | | San Miguel CSD Total | Templeton CSD Total | TOTAL MUNICIPAL PUMPING |
|---|---|---|---|---|---|---|---|---|
| | | River Wells[1] | | Basin Wells[2] | City of Paso Robles Total | | | |
| | | *Atascadero Sub-basin* | *Estrella Sub-area* | *Estrella Sub-area* | | *Estrella Sub-area* | *Atascadero Sub-basin* | |
| | [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.

**Table 4**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | Municipal Pumping Estrella Sub-area | | | | Agricultural Pumping Estrella Sub-area | | | | Agricultural Pumping Creston Sub-area | | | | Agricultural Pumping San Juan Sub-area | | | | TOTAL REDUCED PUMPING |
| | 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 | 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] |
| **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** |

**Table 4**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | Municipal Pumping Estrella Sub-area | | | | Agricultural Pumping Estrella Sub-area | | | | Agricultural Pumping Creston Sub-area | | | | Agricultural Pumping San Juan Sub-area | | | | TOTAL REDUCED PUMPING |
| | 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 | 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 Migual 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]

**Table 5**

## 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** |

**Table 5**

## 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).

**Table 6**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] |
|---|---|---|---|---|---|---|---|
| Water Year | 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] | |
| 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%** |

**Table 6**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] |
|---|---|---|---|---|---|---|---|
| Water Year | 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] | |
| 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]

**Table 7**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | ]7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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** |

**Table 7**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | ]7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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] |
| 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)

**Table 8**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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** |

**Table 8**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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)

**Table 9**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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** |

**Table 9**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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)

**Table 10**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] |
|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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** |

**Table 10**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] |
|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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] |
| 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)

**Table 11**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 11**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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).

**Table 12**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 12**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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.

**Table 13**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 13**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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.

**Table 14**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 14**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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.

**Table 15**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 15**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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 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 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.

**Table 16**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 16**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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.

**Table 17**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 17**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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.

**Table 18**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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** |

**Table 18**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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 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 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.

**Table 19**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | 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** |

**Table 19**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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 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 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.

**Table 20**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [acre-ft] | | | | | | | | [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** |

**Table 20**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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.

**Table 21**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [acre-ft] | | | | | | | | [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** |

**Table 21**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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.

**Table 22**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 22**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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.

**Table 23**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 23**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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.

**Table 24**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 24**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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.

**Table 25**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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** |

**Table 25**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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 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 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.

**Table 26**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [acre-ft] | | | | | | | | [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** |

**Table 26**

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

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Year | INFLOW | | | | | | | | OUTFLOW | | | | | | | | |
| | 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* | Change in Groundwater Storage |
| | [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 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 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.