

BULLETIN  
132-04  
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# MANAGEMENT OF THE CALIFORNIA STATE WATER PROJECT

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Joaquin Valley National Cemetery. A total of 5 acre-feet was delivered to the National Cemetery in Reach 2B of the California Aqueduct in 2003 under this 2002 agreement (SWPAO #02321), and a total of 80 acre-feet was delivered to the National Cemetery in Reach 2B of the California Aqueduct in 2003 under a pending letter agreement. (SWPAO #03312)

**U.S. Fish and Wildlife Service Cooperative Agreement.** The Bureau initiated a cooperative agreement with the Department to deliver CVP water to the Kern National Wildlife Refuge for USFWS. Under the terms of this cooperative agreement, dated September 9, 1994, up to 26,530 acre-feet of CVP water would be delivered from Check 21 to the Buena Vista Water Storage District Turnout BV-1B, on Reach 10A of the California Aqueduct, from October 1, 1993, through April 10, 1995. Since the cooperative agreement was signed, 13 modifications to the agreement have been executed. Under Modification No. 001, dated October 31, 1994, additional funding was provided. Similar funding adjustments through modifications were made each year to the agreement. Modification No. 013, executed February 3, 2002, extended the agreement through April 30, 2002, and defined the water delivery rates for 2001 and 2002. A new 5-year agreement with the Bureau for Kern National Wildlife Refuge is currently pending. The Department conveyed 14,936 acre-feet of CVP water to Kern National Wildlife Refuge in 2003.

**Other Turnout Agreements.** In 2003, there was one new turnout agreement with a non-SWP contractor agency.

**Plain View Water District.** An agreement executed October 1, 2003, between the Department and Plain View Water District, allowed the construction, operation, and maintenance of a permanent Musco Family Olive Turnout at Milepost 12.47, Reach 2A of the California Aqueduct. Construction is currently uncheduled. The agreement contains provisions for submitting plans and specifications within 1 year of executing the agreement.

## Water Deliveries

### Approved Table A Deliveries

Each year, by October 1, the SWP long-term water contractors submit initial requests for approved Table A deliveries allocated to contractors for use in the subsequent calendar year. Initial approved Table A amounts for the coming year are made by the Department in December and are based on operations studies that assume 90 percent exceedence of historic water supply (where exceedence refers to the possibility that water supply in the coming year will be exceeded by the historic water supply), current reservoir storage, and total requests by the SWP water contractors. Forecasts for the year are updated as hydrological conditions change. Approved Table A amounts are increased or decreased depending on both actual and projected hydrologic conditions.

On October 1, 2002, SWP long-term contractors submitted initial requests for 2003.

The Department approved deliveries of 825,375 acre-feet on December 3, 2002, resulting in initial approved Table A amounts of 20 percent of most SWP contractor requests. The Department increased the 2003 approved Table A amounts to 1.86 million acre-feet, or 45 percent on January 16, 2003. As water conditions improved, approved Table A amounts were increased to 2.06 million acre-feet (50 percent) on March 28; 2.89 million acre-feet (70 percent) on April 24; and finally to 3.71 million acre-feet (90 percent) on May 16.

Notices to State Water Project Contractors informing them of increases or decreases in approved Table A amounts are online at [www.swpao.water.ca.gov/notices/index.cfm](http://www.swpao.water.ca.gov/notices/index.cfm).

### SWP Deliveries

The SWP delivers water for a variety of beneficial uses. In addition to delivering approved Table A water to long-term water supply contractors, the SWP

- conveys water to, and stores water for, other public agencies through special contracts and agreements;
- provides water for wildlife and recreational uses; and
- stores, releases, and delivers local runoff water from SWP facilities to agencies that hold local water rights.

In 2003, 4,223,255 acre-feet of water were conveyed to 27 long-term contractors and 26 other agencies. That amount includes

- 2,901,041 acre-feet of approved Table A water;
- 59,653 acre-feet of Article 21 water and 175 acre-feet of unscheduled water;
- 2,846 acre-feet of SWP water for recreation, fish and wildlife; and
- 1,037,324 acre-feet of water delivered to satisfy water rights settlement agreements and agreements with SWP contractors for local water supplies.

Figure 9-1, located before the tables at the end of the chapter, shows amounts of water delivered to various locations during 2003.

Specific information about water deliveries made to long-term contractors and other agencies during 2003 and historical deliveries from 1962 through 2003 are presented in the following three sections, each with a corresponding table, located at the end of the chapter:

- Water Delivered to Long-term Water Supply Contractors in 2003, by Service Area (Table 9-4);
- Water Delivered in 2003, by Month (Table 9-5); and
- Total Amounts of Annual Table A Water and Water Conveyed, by Type, 1962-03 (Table 9-6).

### **Water Deliveries and Credits to Long-Term SWP Contractors**

Table 9-4 shows amounts of water delivered in 2003. The following information is arranged by column number.

#### **2003 Approved Table A Water Delivered.**

Columns 1 through 6 show a detailed breakdown of approved Table A water delivered to long-term water supply contractors in 2003.

**Turnback Pool Water.** Column 5 shows 29,770 acre-feet of turnback pool water was delivered to long-term water supply contractors in 2003.

#### **2002 Carryover Approved Table A Water Delivered During 2003.**

For several years, the Department has offered contractors the opportunity to carry over a portion of their approved Table A water for delivery in the current year to be delivered during the next year.

The carryover program was designed to encourage the most effective and beneficial use of water and to avoid obligating the contractors to use or lose the water by December 31 of each year. The SWP contractors' long-term contracts and amendments state the criteria for carrying over approved Table A water from one year to the next. Column 7 shows 219,915 acre-feet of water was carried over from 2002 for delivery in 2003.

**Total Table A Water Delivered.** Column 8 shows all approved Table A water delivered in 2003—a total of 2,898,144 acre-feet.

**2003 Water Bank Recoveries.** Column 9 shows 72,812 acre-feet of water bank recoveries in 2003.

**2003 Article 21 Water.** Column 10 shows 59,828 acre-feet of 2003 Article 21 water delivered to long-term water supply contractors in 2003 (includes 59,653 acre-feet of Article 21 water and 175 acre-feet of unscheduled water). Long-term water supply contractors who have

not signed the Monterey Amendment receive unscheduled water.

**Dry Year Water Purchase Program.** Column 11 shows 7,388 acre-feet of Dry Year Water Purchase Program water delivered in 2003.

**2003 Article 54 Flexible Storage Withdrawal Recoveries.** Column 12 shows 95,797 acre-feet of Article 54, Flexible Storage Withdrawal in 2003.

**Total SWP Water Delivered.** Column 13 shows 3,134,769 acre-feet of total SWP water delivered in 2003. This includes total approved Table A water, water bank recoveries, Dry Year Water Purchase Program, Flexible Storage Withdrawal, and Article 21 and unscheduled water.

**Non-SWP Water Deliveries.** Column 14 includes deliveries of nonproject water to long-term water contractors. Nonproject water is generally local and permit water that a SWP contractor has a water right to, or water purchased from, exchanged with, or transferred from non-SWP agencies. In 2003, nonproject water deliveries totaled 51,769 acre-feet.

**Total Deliveries.** Column 15 shows total amounts of water delivered to long-term contractors. In 2003, the SWP delivered 3,186,528 acre-feet to 27 long-term contractors. This amount included 2,901,041 acre-feet of approved Table A water, 59,828 acre-feet of Article 21 and unscheduled water, and 51,139 acre-feet of nonproject water.

### **Water Delivered in 2003 by Month**

During 2003, the SWP provided water service to 53 agencies, including 27 long-term water contractors. Those agencies and the amounts of water delivered to them by month are listed in Table 9-5, and are summarized below as SWP water and nonproject water.

**SWP Water.** SWP water as defined in the *long-term water supply contracts*, includes Article 21 water; carryover approved Table A water; current year approved Table A amounts; flexible

storage water; transfer and exchange of approved Table A water; and turnback pools A and B.

*Related water* includes operational flood release and recreation and fish and wildlife. There was no operational flood water released in 2003.

**Article 21 Water.** The Article 21 water program allows a contractor to take delivery of water over the approved and scheduled Table A amounts for the current year. In 2003, 16 contractors participated in the program. A total of 59,828 acre-feet of Article 21 water was delivered to Napa, Solano, Santa Clara, County of Kings, Dudley Ridge, Castaic Lake, Metropolitan, Kern, Oak Flat, Tulare, San Luis Obispo, Santa Barbara, Coachella, Desert, San Bernardino, and San Gabriel. Empire took delivery of 175 acre-feet of unscheduled water.

**2002 Carryover Approved Table A Water.** In 2003, 174,315 acre-feet of 2002 approved Table A water were delivered that had been stored in SWP storage facilities in 2002.

**Approved Table A Water.** A total of 2,735,926 acre-feet of 2003 approved Table A water was delivered to 27 long-term contractors. Also, 174,315 acre-feet of carryover water, and 95,797 acre-feet of flexible storage withdrawal water were delivered in 2003.

**Exchanges and Transfers of Approved Table A Water.** During 2003, a total of 66,677 acre-feet of approved Table A water was exchanged or transferred to SWP long-term contractors and non-SWP water agencies as follows:

- Kern transferred 8,000 acre-feet to Dudley Ridge;
- Tulare transferred 4,900 acre-feet of water to Westlands and exchanged 14,103 acre-feet with Westlands;
- Metropolitan exchanged 24,874 acre-feet with Mojave;
- Dudley Ridge exchanged 8,700 acre-feet with San Gabriel and transferred 1,100 acre-feet to Tulare; and

- San Bernardino transferred 5,000 acre-feet to Metropolitan.

**Turnback Pool Water.** A total of 29,770 acre-feet of turnback pool water was delivered to long-term water supply contractors.

**Water for Recreation and Fish and Wildlife.**

A total of 2,846 acre-feet of SWP water was conveyed for recreational use and enhancement of fish and wildlife.

*Recreational Use.* The SWP delivered 563 acre-feet of water for facilities at Lake Oroville, Lake del Valle, O'Neill Forebay, Silverwood Lake, and Lake Perris. In addition, 1,776 acre-feet were delivered to Castaic Lake and Castaic Lagoon, an impoundment downstream from Castaic Lake devoted entirely to recreation.

*Wildlife Management.* The SWP delivered 507 acre-feet of water to use in managing wildlife in the Pilibos Wildlife Area, located on about 770 acres of land near O'Neill Forebay, 40 miles south of Los Banos.

**Water for North Bay Aqueduct Flow Test.** A total of 27 acre-feet was conveyed through the North Bay Aqueduct to test the flow capacity downstream of Barker Slough Pumping Plant, following a clean out of a portion of the pipeline.

**Non-SWP Water**

In 2003, the Department used SWP facilities to convey non-SWP water for various agencies according to the terms of water rights and water transfer and exchange agreements. Detailed information concerning those conveyances is found under the *Miscellaneous Agreements with Other Agencies* section in this chapter.

**Floodwater.** Occasionally, during wet years, the Department accepts floodwater from the Kern River into the California Aqueduct through the Kern River-California Aqueduct Intertie under an agreement entitled *Agreement among the State of California, Kern County Water Agency, and the Kern River Interests for Diversions of Floodwaters through the Kern River-California*

*Aqueduct Intertie*, dated November 18, 1975. In 2003, the Department did not accept any floodwater into the California Aqueduct.

**Water Rights Water.** Water in this category is transported through SWP facilities to long-term SWP contractors and other agencies according to terms of various local water rights agreements. Some water simply passes through SWP transportation facilities; a portion is stored in SWP reservoirs for release at a later time. In 2003, 1,037,324 acre-feet of water in this category were delivered to the Feather River, South Bay, North Bay, and Southern California.

*Feather River Area.* Ten nonproject agencies in the Feather River area received 1,008,093 acre-feet. Those agencies are

- Last Chance Creek Water District, 6,598 acre-feet
- Thermalito Irrigation District, 2,398 acre-feet
- South Feather Water and Power Agency, formerly Oroville-Wyandotte Irrigation District, 4,879 acre-feet
- Western Canal Water District, 282,251 acre-feet
- Joint Water Districts Board, 682,403 acre-feet
- Oswald Water District, 445 acre-feet
- Tudor Mutual Water Company, 3,220 acre-feet
- Garden Highway Mutual Water Company, 16,303 acre-feet
- Plumas Mutual Water Company, 8,498 acre-feet
- Dana Brothers, 1,098 acre-feet

*North Bay Area.* In the North Bay Area, 4,600 acre-feet of Solano permit and settlement water were delivered.

*South Bay Area.* In the South Bay area, a total of 17,290 acre-feet of local water was delivered to Alameda-Zone 7 (9,378 acre-feet) and Alameda County (7,912 acre-feet). These two South Bay Aqueduct contractors hold water rights to runoff from Lake Del Valle watershed.

*Southern California.* In Southern California, 573 acre-feet of local runoff from the Houston Creek watershed were stored and delivered to Crestline under water rights held by the Department on Houston Creek. The authorized place of use is limited to Crestline.

The Department also released 6,768 acre-feet of local water from Piru Creek to United Water Conservation District, a member unit of Ventura.

### **Annual Table A Water and Water Delivered Since 1962**

Information about annual Table A water and water conveyed for the past 40 years is contained in Table 9-6. The following discussion of conveyed Table A water is arranged according to column numbers.

**Annual Table A.** Columns 1 through 7 of Table 9-6 show the amount of long-term contractor's annual Table A water by area for years 1962 through 2003 as specified in the Table A schedules of the long-term water supply contracts.

In some instances Table A schedules—projections of each contractor's need for water to 2035—have been amended to meet the needs of individual contractors. The amounts of annual Table A water each contractor may request for years 1962 through 2035 can be found in Table B-4 in Appendix B.

**Water Delivered.** Columns 8 through 16 show water delivered or conveyed, including initial fill water and operational losses and storage changes.

**Approved Table A Water.** Column 8 shows amounts of approved Table A water delivered each year from 1962 through 2003.

**Article 21 and Unscheduled Water.** Article 21 and unscheduled water is water in excess of that required to meet all demands for the year's approved Table A water and water to be stored in SWP reservoirs.

Column 9 shows amounts of Article 21 water, as defined under *SWP Deliveries*, and unscheduled water delivered from 1962 through 2003.

**Other Water.** Column 10 includes amounts of water classified as other water delivered in 2003, including nonproject water conveyed through SWP facilities and regulated delivery of local supply.

In 2003, a total of 251,447 acre-feet of other water was delivered.

**Feather River Diversions.** Column 11 includes amounts of water from the Feather River delivered according to agreements for water rights water. In 2003, a total of 1,008,093 acre-feet in this category was delivered to agencies in the Feather River area.

**Recreation Water.** Column 12 shows water conveyed for recreational use or to provide water to improve water quality for fish and wildlife. In 2003, a total of 2,846 acre-feet of SWP water was conveyed for this purpose.

**Initial Fill Water.** The quantities listed in Column 14 represent the amounts used to initially fill the aqueducts and reservoirs south of the Delta to maximum operating capacities. Initial filling began in 1962 with the filling of the South Bay Aqueduct and was completed in 1979 when Lake Perris reached its maximum operating capacity of 127,000 acre-feet. In 1996 and 1997, the Coastal Aqueduct was initially filled.

**Operational Losses.** Column 15 includes the total amounts of water lost through evaporation and seepage, net storage changes in reservoirs south of the Delta, and amounts of inflow from local drainage areas, including inflows into San Luis Canal and from the Kern River Intertie.

Negative values are indicated for years when withdrawals and evaporation from reservoirs south of the Delta exceed the amounts of water added to the reservoirs.

**Table 9-4. Water Delivered to Long-Term Contractors through 2003, by Service Area (Acre-Feet)**

Water Contractor or Agency	Approved Table A Water Deliveries								Water Bank Recoveries (9)	2003 Article 21 Water (10)	2003 Dry Year Water Purchase (11)	2003 Article 54 Flexible Withdrawal (12)	Total SWP Water Delivered (13)	Non-SWP Water Deliveries (14)	Total Deliveries
	2003 Table A without Transfers, Exchanges, and Storage (1)	2003 Table A Supplied (Not a Delivery) (2)	2003 Table A Delivered through Transfers and Exchanges (3)	2003 Table A Delivered to Storage (4)	Pool Water (5)	Total 2003 Table A Delivered (6)	2002 Carryover Table A Delivered during 2003 (7)	Total Table A Deliveries (8)							
<b>Feather River Area</b>															
County of Butte	551	0	0	0	0	551	0	551	0	0	0	0	551	0	551
Plumas County Flood Control and Water Conservation District	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
City of Yuba City	1,324	0	0	0	0	1,324	0	1,324	0	0	0	0	1,324	0	1,324
<b>North Bay Area</b>															
Napa County Flood Control and Water Conservation District	6,026	0	0	0	180	6,206	1,055	7,261	0	376	0	0	7,637	0	7,637
Solano County Water Agency	25,135	0	0	0	0	25,135	1,918	27,053	0	2,280	0	0	29,333	4,600 <sup>P</sup>	33,933
<b>South Bay Area</b>															
Alameda County Flood Control and Water Conservation District-Zone 7	30,695	0	0	6,500 <sup>h</sup>	656	31,351	13,099 <sup>h</sup>	44,450	0	0	0	0	44,450	10,378 <sup>q</sup>	54,828
Alameda County Water District	14,986	0	0	18,800 <sup>i</sup>	354	31,440	5,150 <sup>i</sup>	36,590	0	0	0	0	36,590	7,912 <sup>r</sup>	44,502
Santa Clara Valley Water District	57,000	0	0	33,000 <sup>i</sup>	841	90,841	14,104	104,945	0	936	0	0	105,881	3,100 <sup>s</sup>	108,981
<b>San Joaquin Valley Area</b>															
Castaic Lake Water Agency	3,506	0	0	0	0	3,506	0	3,506	0	495	0	0	4,001	0	4,001
County of Kings	3,600	0	0	0	34	3,634	0	3,634	0	58	0	0	3,692	0	3,692
Dudley Ridge Water District	39,274	0	9,800 <sup>c</sup>	350 <sup>k</sup>	482	49,906	1,452	51,358	350	1,928	1,496	0	55,132	0	55,132
Empire West Side Irrigation District	1,074	0	0	0	0	1,074	187	1,261	0	175 <sup>m</sup>	0	0	1,436	0	1,436
Kern County Water Agency	697,169	155,565 <sup>a</sup>	8,000 <sup>d</sup>	0	8,419	713,588	22,380	735,968	0	27,891 <sup>n</sup>	5,892	0	790,237	18,428 <sup>e</sup>	808,665
Oak Flat Water District	4,059	0	0	0	48	4,107	140	4,247	0	19	0	0	4,266	0	4,266
Tulare Lake Basin Water Storage District	75,373	0	19,003 <sup>e</sup>	0	938	95,314	4,284	99,598	0	6,243	0	0	105,841	0	105,841
<b>Central Coastal Area</b>															
San Luis Obispo County Flood Control and Water Conservation District	4,417	0	0	0	0	4,417	0	4,417	0	36	0	0	4,453	0	4,453
Santa Barbara County Flood Control and Water Conservation District	24,312	0	0	0	43	24,355	2,274	26,629	0	339	0	0	26,968	0	26,968
<b>Southern California</b>															
Antelope Valley-East Kern Water Agency	52,730	0	0	0	250	52,980	7,049	60,029	0	0	0	0	60,029	0	60,029
Castaic Lake Water Agency	46,389	0	0	0	90	46,479	4,760	51,239	0	496	0	0	51,735	0	51,735
Coachella Valley Water District	14,045	0	0	0	194	14,239	0	14,239	0	204	0	0	14,443	0	14,443
Crestline-Lake Arrowhead Water Agency	1,563	0	0	0	0	1,563	0	1,563	0	0	0	0	1,563	573 <sup>u</sup>	2,136
Desert Water Agency	23,168	0	0	0	321	23,489	0	23,489	0	330	0	0	23,819	0	23,819
Littlerock Creek Irrigation District	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Metropolitan Water District of Southern California	1,261,502	107,771 <sup>b</sup>	24,874 <sup>f</sup>	131,705 <sup>l</sup>	16,920	1,435,001	134,845 <sup>w</sup>	1,524,246	51,976	17,622 <sup>c</sup>	0	95,797	1,689,641	0	1,689,641
Mojave Water Agency	10,907	0	0	0	0	10,907	3,528	14,435	0	0	0	0	14,435	0	14,435
Palmdale Water District	9,701	0	0	0	0	9,701	1,846	11,547	0	0	0	0	11,547	0	11,547
San Bernardino Valley Municipal Water District	20,371	0	5,000 <sup>g</sup>	0	0	25,371	1,844	27,215	0	200	0	0	27,415	0	27,415
San Gabriel Valley Municipal Water District	13,034	0	0	0	0	13,034	0	13,034	0	200	0	0	13,234	0	13,234
San Geronio Pass Water Agency	116	0	0	0	0	116	0	116	0	0	0	0	116	0	116
Ventura County Watershed Protection District	5,000	0	0	0	0	5,000	0	5,000	0	0	0	0	5,000	6,768 <sup>v</sup>	11,768
<b>Total</b>	<b>2,447,027</b>	<b>263,336</b>	<b>66,677</b>	<b>190,355</b>	<b>29,770</b>	<b>2,724,629</b>	<b>219,915</b>	<b>2,898,944</b>	<b>72,812</b>	<b>59,828</b>	<b>7,388</b>	<b>95,797</b>	<b>3,134,769</b>	<b>51,769</b>	<b>3,186,528</b>

<sup>a</sup>Kern supplied 125,000 af to EWA; exchanged 350 af of Dudley Ridge for Kern Water Bank water exchanged 10,000 af to Metropolitan for Semitropic Water Bank water; exchanged 6,436 af with Del Puerto Water District; exchanged 4,284 af with Panoche Water District; exchanged 9,495 af to San Luis Water District.  
<sup>b</sup>Metropolitan supplied 29,596 af to EWA; used 45,600 af of carryover for flexible storage payback; used 32,575 af for flexible storage payback.  
<sup>c</sup>Dudley Ridge exchanged 8,700 af with San Geronio; transferred 1,100 af to Tulare.  
<sup>d</sup>Kern transferred 8,000 af to Dudley Ridge.  
<sup>e</sup>Tulare exchanged 14,103 af with Westlands; transferred 4,900 af to Westlands.  
<sup>f</sup>Metropolitan exchanged 24,874 af with Mojave.  
<sup>g</sup>San Bernardino transferred 5,000 af to Metropolitan.  
<sup>h</sup>6,500 af of 2002 carryover water delivered to Semitropic Water Bank (not shown in Column 6).  
<sup>i</sup>2,700 af of 2002 carryover water delivered to Semitropic Water Bank (not shown in Column 6).  
<sup>j</sup>Delivered to Semitropic Water Bank.

<sup>k</sup>350 af delivered to Kern Water Bank.  
<sup>l</sup>40,631 af to Arvin-Edison Water Bank, 20,134 af to Kern Delta Water Bank, and 70,940 af to Semitropic Water Bank.  
<sup>m</sup>Empire's unscheduled water.  
<sup>n</sup>Kern's Article 21 includes 7,180 af delivered to EWA.  
<sup>o</sup>Metropolitan's Article 21 was used for flexible storage payback.  
<sup>p</sup>Santa Clara's permit and settlement water.  
<sup>q</sup>Alameda Zone-7's 9,378 af of local water and 1,000 af of Byron-Bethany water.  
<sup>r</sup>Alameda County's 7,912 af of local water.  
<sup>s</sup>6,000 af of transferred water from Del Puerto WD, transferred 4,000 af from Panoche WD, and transferred 8,418 af from San Luis Water District.  
<sup>t</sup>Transferred water from Browns Valley Irrigation District.  
<sup>u</sup>Crestline's local water.  
<sup>v</sup>Ventura's local water.  
<sup>w</sup>Metropolitan used 45,600 af of carryover for flexible storage payback (not a delivery and not shown in Column 8).