

MANAGEMENT OF THE CALIFORNIA STATE WATER PROJECT

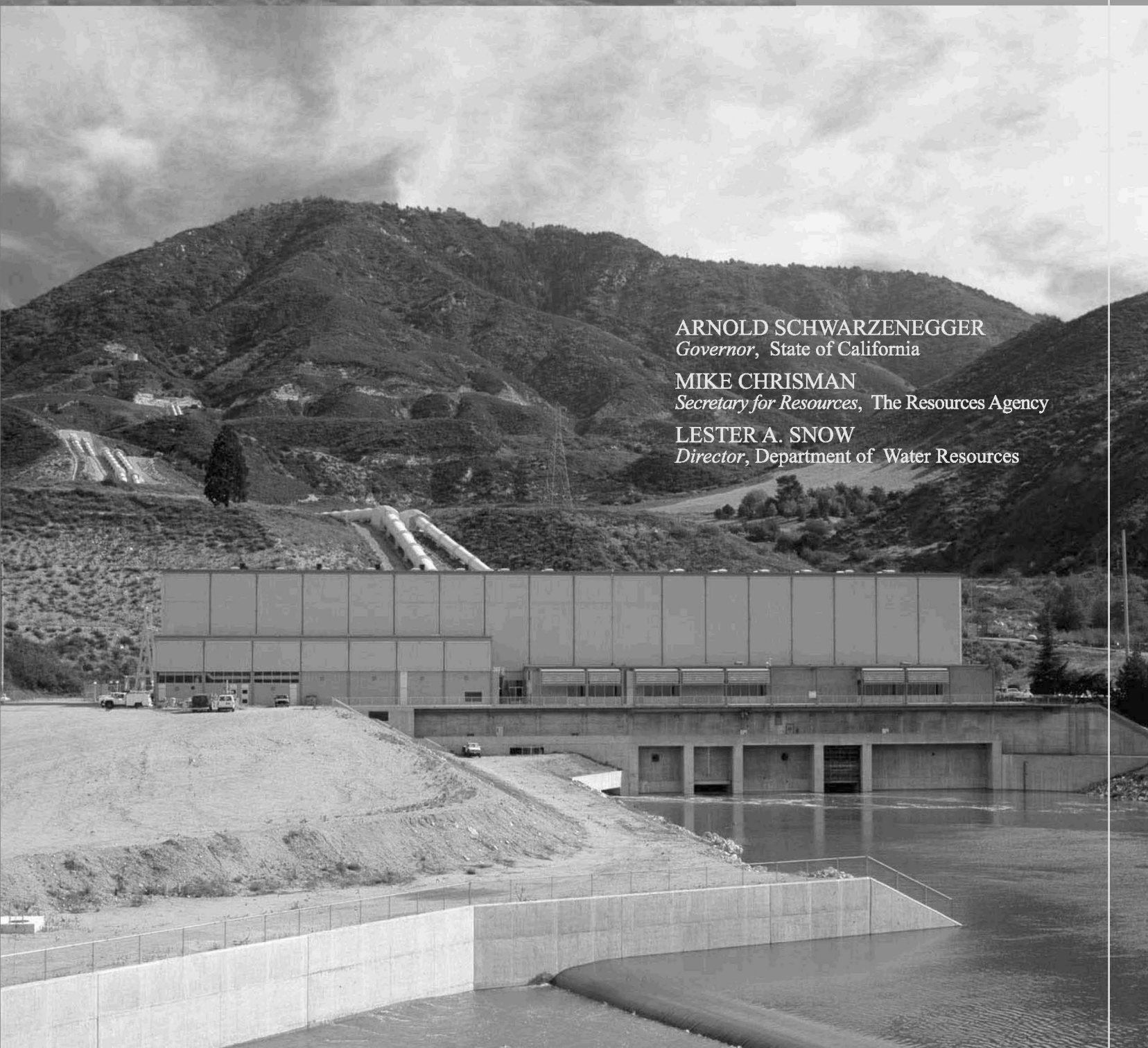
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Chapter 9

Water Contracts and Deliveries



Napa Terminal Tank, end of the North Bay Aqueduct

Significant Events in 2002

- The Department executed 5 water conveyance/exchange agreements, 4 turnout agreements, 32 Turnback Water Pool Program agreements, 2 storage agreements, 14 Article 21 Water Program agreements, and 1 unscheduled water program agreement with State Water Project contractors. Pending execution are 14 water conveyance/exchange agreements and 4 storage agreements.
- The State Water Project approved delivery of 70 percent of SWP contractor's Table A amounts in 2002. The SWP conveyed 4,053,989 acre-feet to 26 long-term contractors and 24 other agencies.
- The parties in *Planning and Conservation League, et al. v. Department of Water Resources* commenced mediation on March 26, 2002. On July 18, 2002, the parties reached agreement on principles for settling the lawsuit. The Department began preparing a new EIR and the interested parties continued mediation to convert the settlement principles into a legal agreement.
- The Dry Year Water Purchase Program was initiated to reduce the possibilities of adverse economic impacts and hardship associated with water shortages.
- EWA is a cooperatively managed program intended to provide protection to the fish of the Bay-Delta Estuary through environmentally beneficial changes and increased flexibility in the operations of the SWP and CVP. During EWA's second year of operation, fish protection was achieved by periodically curtailing project water delivery from the Bay-Delta and replacing it later in the year.

The long-term water supply contracts for water service from the State Water Project between the Department and 29 local agencies are basic to the project's construction and operation. In return for State financing, constructing, operating, and maintaining facilities needed to provide water service, the agencies contractually agreed to repay all associated SWP capital and operating costs.

The Department delivers water to SWP contractors according to their long-term water supply contracts.

These contracts set forth Table A amounts, which determine how much water a contractor may request each year from the Department.

Annual Table A represents the total amount of project water that an SWP contractor may

request each year, according to that contractor's long-term water supply contract.

Approved Table A represents the amount of annual Table A requested by the contractors and approved for delivery by the Department, based on hydrologic conditions, current reservoir storage, and total requests by the SWP water contractors. The Department is not always able to deliver the quantity of water requested by the

Long-Term SWP Water Supply Contracts

The first water supply contract was signed with the Metropolitan Water District of Southern California on November 4, 1960. The contract was negotiated by the Department and Metropolitan according to terms of the contracting principles for water service contracts announced by Governor Edmund G. Brown on January 20, 1960.

The Metropolitan contract became the prototype for all water contracts; by the end of 1967, 31 agencies had contracted for water. In addition, a water supply contract was executed with the City of West Covina in December 1963, but was terminated in August 1965; the city's Table A amount was transferred to Metropolitan through an amendment to the district's long-term contract with the Department. Long-term contracts with Hacienda Water District and Devil's Den Water District were also terminated when those districts transferred their Table A amounts, through contract amendments, to Tulare Lake Basin Water Storage District (1981) and Castaic Lake Water Agency (1992), respectively. Today the SWP has long-term water supply contracts with 29 agencies. Those contracts have been amended periodically to incorporate mutually desired modifications.

All water contracts signed in the 1960s included an estimate of the date water would first be delivered and a schedule of the amount of water the agency could expect to be delivered annually (annual Table A amounts). That amount was designed to increase gradually until the maximum amount of annual Table A was reached. The total combined maximum annual Table A amount for all water contracting agencies was initially 4,230,000 acre-feet, assuming full development of the SWP.

The contracts were initially designed to be valid for 75 years or until all bonds sold as part of the California Water Resources Development Bond Act were repaid, whichever period was longer. As a result of amendments to contracts in the 1990s, the current combined maximum annual Table A amount totals 4,172,786 acre-feet, and the contracts are in effect for the longest of the following periods: (1) the project repayment period, which extends to the year 2035; (2) 75 years from the date of the contract; or (3) the period ending with the latest maturity date of any bond used to finance the construction costs of project facilities.

contractors; under certain conditions, a lesser amount, allocated according to the long-term water supply contracts and the process noted above, is made available for delivery.

Approved Table A amounts may also be referred to in this chapter as *approved amounts* or *approved water*.

The long-term water supply contracts are amended as needed. During 2002, no amendments were executed.

The Department also enters into miscellaneous agreements with SWP contractors and other agencies—which may be amended periodically—to convey SWP and non-SWP water through the California Aqueduct and approve the construction, operation, and maintenance of turnouts along SWP facilities. During 2002, the Department executed 6 water conveyance/exchange agreements (including one unscheduled water program agreement), 4 turnout agreements, 32 Turnback Water Pool Program agreements, 2 storage agreements, and 14 Article 21 Water Program agreements, with SWP contractors. During 2002, the Department delivered water pursuant to 6 agreements previously executed with the contractors. Pending execution are 14 water conveyance/exchange agreement and 4 storage agreements.

The State Water Project Analysis Office has developed a numbering system for contracts, amendments, and agreements executed by the Department. These numbers, designated as SWPAO #XXXXXX, are located in parentheses after each contract, amendment, or agreement.

Detailed information about amendments and agreements follows.

Amendments to Long-Term SWP Water Supply Contracts

All the original contracts signed by the Department and local agencies have been previously amended to incorporate mutually desired

changes. Most amendments fall under the following five general categories:

- (1) revision of annual Table A amounts in the water supply contracts;
- (2) allocation of costs and benefits for the enlargement or extension of the East Branch and extension of the Coastal Branch of the California Aqueduct;
- (3) purchase of excess capacity in the California Aqueduct;
- (4) provisions to allow contractors, under certain conditions, to carry over undelivered SWP approved Table A water from one year for delivery in the next year; and
- (5) implementation of Monterey Agreement principles.

None of the long-term SWP Water Supply Contracts were amended during 2002.

Monterey Amendments

The Monterey Amendments increase the reliability of existing water supplies; provide stronger financial management for the SWP; and increase water management flexibility, providing more tools for local water agencies to maximize use of existing facilities.

Changes to SWP operations incorporated in the Monterey Amendments include changes in determination of approved Table A water, the transfer of Table A amounts and land, financial restructuring, and increased operational flexibility. The Monterey Amendments are discussed in detail in Chapter 1, *Summary of Significant Events*, of Bulletin 132-95.

No Monterey Amendments were executed during 2002. Plumas County Flood Control and Water Conservation District and Empire West Side Irrigation District remain the only long-term SWP contractors who have not signed the Monterey Amendment.

The Planning and Conservation League filed a lawsuit on December 27, 1995, challenging the California Environmental Quality Act

compliance for the Monterey Amendment. A Sacramento County Superior Court judge later dismissed the lawsuit. PCL appealed the decision and on September 15, 2000, the Third District Court of Appeal reversed the Superior Court ruling. On December 13, 2000, the California Supreme Court denied review. The parties commenced mediation on March 26, 2002, and proceedings in Superior Court were stayed pending completion of mediation. On July 18, 2002, the parties reached agreement on principles for settling the lawsuit. The Department began preparing a new EIR and the interested parties continued mediation to convert the settlement principles into a legal agreement. Additional information can be found in Chapter 6, *Legislation and Litigation*.

Miscellaneous Agreements with Long-Term SWP Contractors

2002 Water Conveyance/Exchange Agreements

During 2002, water conveyance/exchange agreements were executed or pending execution with long-term SWP contractors as described below.

Antelope Valley-East Kern Water Agency. A temporary diversion agreement, executed on June 25, 2002, and subsequently amended on August 5, 2002, (Amendment No. 1) and on December 23, 2002, (Amendment No. 2) between the Department and AVEK, provided for the delivery of AVEK's approved 2002 SWP water supplies to Reach 22B of the California Aqueduct. Amendment No. 3, pending execution, allows AVEK to be billed for a use-of-facility charge for Reach 22B. During 2002, a total of 497 acre-feet was delivered to AVEK at Reach 22B. (SWPAO #02034)

County of Kings. A long-term agreement, pending execution among the Department, County of Kings, Tulare Lake Basin Water Storage District, and Westlands Water District, will provide for a change in point of delivery of up to 200 acre-feet of Kings' annual approved

Table A amounts and other SWP water supplies to Westlands' turnouts at Reaches 6 and 7 of the California Aqueduct. The water is conveyed to GWF Energy, LLP for use within Kings' service area. No water was delivered in 2002. (SWPAO #02031)

Dudley Ridge Water District. A long-term agreement, pending execution among the Department, Dudley Ridge Water District, and Tulare, will provide for a change in point of delivery of a portion of Dudley Ridge's annual approved SWP water and other water supplies to Tulare's turnout at Reach 8D of the California Aqueduct. Two long-term water supply contract amendments with Tulare (Amendment No. 26) and Dudley Ridge (Amendment No. 24), were executed in December 2001 for the permanent transfer of 3,973 acre-feet of Tulare's Table A amounts to Dudley Ridge to accommodate the needs of Sandridge Partners, who farms in both Tulare and Dudley Ridge. This is a subsequent agreement to provide delivery of water to Sandridge Partners in Dudley Ridge's service area through Tulare's turnout at Reach 8D. A total of 543 acre-feet was delivered to Tulare's turnout at Reach 8D during 2002. (SWPAO #02005)

Empire West Side Irrigation District. An agreement executed April 11, 2002, between the Department and Empire, approved the delivery of unscheduled water to Empire in 2002 at times when project water was not needed for fulfilling approved Table A deliveries or for meeting project operational commitments. A total of 26 acre-feet of unscheduled water was delivered to Empire in 2002. (SWPAO #02006)

Kern County Water Agency. A letter agreement dated September 27, 2002, and executed October 8, 2002, between the Department and Kern, approved the delivery of up to 20,000 acre-feet of 2001 Central Valley Project water from the Bureau of Reclamation on behalf of four CVP contractors. In exchange, Kern returned a like amount of its approved Table A amounts to the CVP contractors by December 31, 2001. The Department petitioned the State Water Resources Control Board in May 2001 for approval for delivery of the return

water. A total of 11,487 acre-feet was delivered to CVP contractors at O'Neill Forebay and 11,487 acre-feet of water was returned from O'Neill Forebay to Kern in 2001. (SWPAO #01010)

Kern County Water Agency. A letter agreement, pending execution between the Department and Kern, will provide for the delivery of up to 13,000 acre-feet of 2001 CVP water from two CVP contractors to Kern. In exchange, Kern would return a like amount of its 2002 approved Table A amounts to the CVP contractors by December 31, 2002. The Department petitioned SWRCB on June 21, 2002, and received approval on August 16, 2002, for a temporary change of place of use for delivery of the return water. A total of 7,400 acre-feet was delivered to Kern from O'Neill Forebay and a total of 7,400 acre-feet of water was returned to the CVP contractors at O'Neill Forebay in 2002. (SWPAO #02014)

Kern County Water Agency. A letter agreement, pending execution among the Department, Kern, and Dudley Ridge, will provide for the delivery of up to 6,400 acre-feet of Kern's 2002 approved Table A amounts to Dudley Ridge. The agreement facilitates the water transfer from Kern to Dudley Ridge on behalf of four landowners—C. J. Ritchie Farms, Sandridge Farms, C.R. Shannon, and the Ritchie Sandridge Partnership—who farm in both Kern and Dudley Ridge service areas. During 2002, a total of 6,133 acre-feet was delivered to Dudley Ridge. (SWPAO #02016)

Kern County Water Agency. A letter agreement, pending execution between the Department and Kern, will provide for the delivery of up to 53,300 acre-feet of CVP water to Kern. Kern acquired this water from CVP (Del Puerto Water District and San Luis Water District) and Cross Valley Canal contractors (Kern-Tulare Water District and Rag Gulch Water District) and requested delivery of the water pursuant to Article 55 of its long-term water supply contract. During 2002, a total of 45,443 acre-feet was delivered to Kern. (SWPAO #02024)

San Bernardino Valley Municipal Water District. San Bernardino Valley Municipal Water District and Metropolitan Water District of Southern California entered Attachment 2, *Coordinated Use Agreement for Conveyance Facilities and State Water Project Water Supplies* on May 14, 2001. The Department responded on February 27, 2002, concurring with the Agreement and acknowledging the coordinated use of local facilities currently existing within San Bernardino Valley's jurisdictional boundaries. This coordinated use involves delivery of San Bernardino Valley's SWP water to Metropolitan's facilities within San Bernardino's service area. This action is permitted under Article 10 of the long-term water supply contract. During 2002, a total of 35,000 acre-feet of San Bernardino Valley's approved Table A amounts was delivered to Metropolitan at Reaches 26A and 30. (SWPAO #02035)

Santa Barbara County Flood Control and Water Conservation District. A letter agreement dated September 13, 2002, and executed October 30, 2002, among the Department, Santa Barbara, and Dudley Ridge, approved the delivery of up to 745 acre-feet of Santa Barbara's 2002 SWP water to Dudley Ridge at Reach 8D. In exchange, Dudley Ridge will return a like amount of its future SWP water to Santa Barbara at Reaches 35, 37, and 38 by December 31, 2012. During 2002, a total of 745 acre-feet was delivered to Dudley Ridge at Reach 8D of the California Aqueduct. (SWPAO #02013)

Tulare Lake Basin Water Storage District. A letter agreement dated May 22, 2002, and executed June 3, 2002, between the Department and Tulare, approved the transfer of up to 5,000 acre-feet of Tulare's 2002 Table A amounts to Westlands at Reaches 5 and 7 of the California Aqueduct, on behalf of two landowners, Hansen Ranches and Newton Brothers, who farm in both the Tulare and Westlands (Vista Verde Farm and Venture Farms Trust) service areas. The Department petitioned SWRCB on May 21, 2002, and received approval on July 25, 2002, for a temporary change of place of use. During 2002, a total of 3,000 acre-feet was delivered to Westlands. (SWPAO #02011)

Tulare Lake Basin Water Storage District. A letter agreement, pending execution between the Department and Tulare, will provide for the delivery of up to 10,000 acre-feet of nonproject water to Tulare at Reaches 8C and 8D (SWPAO #02025). Lower Tule River Irrigation District requested this water be delivered to Tulare and, in exchange, will receive a like amount of Tulare's Tule River water. Tulare requested the water be delivered pursuant to Article 55 of its long-term water supply contract. The water was made available at Banks Pumping Plant. A subsequent Amendment (SWPAO #04022), pending execution between the Department and Tulare, will amend the delivered amounts up to 10,956 acre-feet of nonproject water. During 2002, a total of 10,956 acre-feet of nonproject water was delivered to Tulare. (SWPAO #02025/#04022)

Water Conveyance/Exchange Agreements Prior to 2002

During 2002, water was delivered pursuant to agreements with SWP contractors executed prior to 2002, as described below.

Alameda County Flood Control and Water Conservation District-Zone 7. A conveyance agreement dated July 28, 1995, between Alameda-Zone 7 and the Department, provides for the transfer of up to 5,000 acre-feet of Byron-Bethany Irrigation District's local water annually to Alameda-Zone 7 through SWP facilities. An amendment to extend the agreement to December 31, 2001, was executed January 17, 2001. Byron-Bethany may only transfer water that has been made available by conservation and crop idling. In 2002, 2,000 acre-feet of Byron-Bethany's local water was pumped at Banks Pumping Plant and delivered to Alameda-Zone 7's turnouts in the South Bay Aqueduct. (SWPAO #02325)

Kern County Water Agency. An agreement executed on June 8, 2000, among the Department, Kern, and Western Hills Water District, approved delivery of 8,000 acre-feet of pre-1914 Lower Kern River Rights water banked in Kern's share of the Pioneer Groundwater Bank-

ing Project. A portion of Kern's annual Table A amounts will be delivered annually to Western Hills from Reach 2A of the California Aqueduct; in exchange, Kern will take a like amount of banked local water from the Pioneer Groundwater Bank. The Department petitioned SWRCB and by SWRCB Order dated April 21, 2000, Western Hills' service area was included within the authorized SWP place of use. During 2002, a total of 773 acre-feet of Kern's Table A amounts was delivered to Western Hills at Reach 2A. (SWPAO #01001)

Mojave Water Agency. An agreement executed November 13, 1997, among AVEK, Mojave, and the Department approved a change in point of delivery through 2019 of up to 2,250 acre-feet annually of Mojave's approved Table A amount to AVEK's Fairmont Turnout in Reach 19 of the California Aqueduct. Mojave does not have conveyance facilities to provide service to a solar energy generating station located within its service area. AVEK has conveyance capability and has agreed to provide service. During 2002, the Department delivered 1,370 acre-feet of Mojave's 2002 approved Table A amounts through AVEK's turnout at Reach 19. (SWPAO #97003)

Tulare Lake Basin Water Storage District. A letter agreement, dated June 15, 2001, and executed July 26, 2001, between the Department and Tulare, approved the delivery of up to 50,000 acre-feet of nonproject water from Westlands to Tulare between December 2000 and April 15, 2001, in exchange for a like amount of Tulare's Table A amounts during 2001 through 2003. The delivery of SWP exchange water to Westlands will be from the Delta to Reach 7 of the California Aqueduct, for use within the Kings County portion of Westlands' service area. A combined total of 28,145 acre-feet was delivered to Tulare during 2000 and 2001. During 2001, 1,975 acre-feet were returned to Westlands. During 2002, a total of 12,067 acre-feet was delivered to Westlands, leaving a balance of 14,103 acre-feet to be returned to Westlands. (SWPAO #01009)

EWA 2:1 Exchange Agreements

During 2002, seven SWP contractors had agreements with the Department for the in lieu exchange of a portion of their 2002 Table A amounts for stored Environmental Water Account water. A portion of the EWA water subject to “spilling” in San Luis Reservoir was made available for exchange as of midnight March 29, 2002. For every two units of EWA water delivered to each contractor noted below, the contractor returned one unit of its 2002 approved Table A amounts to EWA by August 31, 2002. The following agreements include provisions concerning the exchanges.

Alameda County Flood Control and Water Conservation District, Zone 7. A letter agreement, pending execution between the Department and Alameda-Zone 7, will provide for an in lieu exchange of a portion of Alameda-Zone 7’s 2002 approved Table A amounts for up to 2,000 acre-feet of stored EWA water. During 2002, a total of 803 acre-feet of EWA water was delivered to Semitropic in April in accordance with the *Alameda County Flood Control and Water Conservation District, Zone 7 and Semitropic Water Storage District Banking Program Agreement*, pursuant to a change in point of delivery agreement among the Department, Alameda-Zone 7, and Kern (SWPAO #02010), and a total of 402 acre-feet of Alameda-Zone 7’s 2002 Table A amounts was returned to EWA in July and August. (SWPAO #02017)

Alameda County Water District. A letter agreement, pending execution between the Department and Alameda County, will provide for an in lieu exchange of a portion of Alameda County’s 2002 approved Table A amounts for up to 2,000 acre-feet of stored EWA water. During 2002, a total of 571 acre-feet of EWA water was delivered to Alameda County in March and April, and a total of 286 acre-feet of Alameda County’s 2002 Table A amount was returned to EWA in July and August. (SWPAO #02018)

Dudley Ridge Water District. A letter agreement, pending execution between the Department and Dudley Ridge, will provide for an in

lieu exchange of a portion of Dudley Ridge’s 2002 approved Table A amount for up to 4,000 acre-feet of stored EWA water. During 2002, the Department delivered a total of 2,140 acre-feet of EWA water to Dudley Ridge, of which 1,597 acre-feet were delivered to Dudley Ridge’s turnout and 543 acre-feet were delivered to Tulare’s turnout in March and April pursuant to a long-term change in point of delivery agreement among the Department, Dudley Ridge, and Tulare (SWPAO #02005). A total of 1,070 acre-feet of Dudley Ridge’s 2002 Table A amounts was returned to EWA in July and August. (SWPAO #02020)

Kern County Water Agency. A letter agreement, pending execution between the Department and Kern, will provide for an in lieu exchange of a portion of Kern’s 2002 approved Table A amounts for stored EWA water. During 2002, a total of 6,744 acre-feet of EWA water was delivered to Kern in March and April, and a total of 3,372 acre-feet of Kern’s 2002 Table A amounts was returned to EWA in July and August. (SWPAO #02021)

Metropolitan Water District of Southern California. A letter agreement, pending execution between the Department and Metropolitan, will provide for an in lieu exchange of a portion of Metropolitan’s 2002 approved Table A amounts for up to 57,000 acre-feet of stored EWA water. During 2002, a total of 27,630 acre-feet of EWA water was delivered to Metropolitan in March and April, and a total of 13,815 acre-feet of Metropolitan’s 2002 Table A amounts was returned to EWA in July and August. (SWPAO #02022)

Santa Clara Valley Water District. A letter agreement, pending execution between the Department and Santa Clara, will provide for an in lieu exchange of a portion of Santa Clara’s 2002 approved Table A amounts for up to 2,176 acre-feet of stored EWA water. During 2002, a total of 1,448 acre-feet of EWA water was delivered to Santa Clara in March and April, and a total of 724 acre-feet of Santa Clara’s 2002 Table A amounts was returned to EWA in July and August. (SWPAO #02019)

Tulare Lake Basin Water Storage District. A letter agreement, pending execution between the Department and Tulare, will provide for an in lieu exchange of a portion of Tulare's 2002 approved Table A amounts for up to 800 acre-feet of stored EWA water. During 2002, a total of 675 acre-feet of EWA water was delivered to Tulare in March and April, and a total of 337 acre-feet of Tulare's 2002 Table A amounts was returned to EWA in July and August. (SWPAO #02023)

Turn-in Agreements

During 2002, a total of 36,799 acre-feet of Kern local water was introduced into the California Aqueduct and recovered by Kern through their existing turnouts. Negotiations continue on an agreement to cover Kern's pump-in recoveries.

Turnout Agreements

Alameda County Flood Control and Water Conservation District, Zone 7. An agreement dated January 23, 2002, between the Department and Alameda-Zone 7, allowed the construction, operation, and maintenance of the Corbett-Ising Turnout at Milepost 14.2, Reach 4 of the South Bay Aqueduct. The turnout has a design capacity of 6.7 cfs. Construction was essentially completed in 2002, but was not formally accepted in 2002.

Antelope Valley-East Kern Water Agency. An agreement dated March 28, 2000, between the Department and AVEK, allowed the construction, operation, and maintenance of the Rancho Vista Turnout at Milepost 339.68, Reach 20B of the California Aqueduct. The turnout has a design capacity of 5 cfs. Construction was completed in March 2000, but was not formally accepted in 2002.

Kern County Water Agency and Belridge Water Storage District. An agreement dated October 29, 2001, among the Department, Kern, and Belridge Water Storage District, allowed the modification, operation, and maintenance

of the existing Belridge Turnout No. 1A at Milepost 209.71, Reach 10A of the California Aqueduct. The turnout has a design capacity of 100 cfs. Modification work was completed in 2002, but not formally accepted.

Kern County Water Agency and Western Hills Water District. An agreement dated June 8, 2000, among the Department, Kern, and Western Hills, allowed the construction, operation, and maintenance of the Western Hills Turnout at Milepost 42.90, Reach 2A, on the west side of the California Aqueduct. The turnout has a design capacity of 30 cfs. The turnout was formally accepted in October 2002.

Agreements and Activities Related to the Monterey Amendments

Turnback Water Pool Program. Under Article 56(d) of the Monterey Amendments, the seventh year of the Turnback Water Pool Program was initiated through Notice to State Water Project Contractors No. 02-04, dated February 8, 2002. All SWP contractors who signed Monterey Amendments were permitted to participate in the program. The program allowed SWP contractors to offer a portion of their approved 2002 Table A water for sale in a turnback pool for use by interested SWP contractors. Based on Table A supply and demand, the turnback water was allocated among the selling and purchasing contractors. In 2002, 45,252 acre-feet of water were purchased under the Turnback Water Pool Program.

Transactions for Pool A and Pool B of the Turnback Water Pool Program occurred in February and March 2002, respectively. Turnback water sold for \$12.16 per acre-foot—50 percent of the Delta Water Rate—through Pool A, and for \$6.08 per acre-foot—25 percent of the Delta Water Rate—through Pool B. All money collected through the Turnback Water Pool Program was paid to the selling contractors. The 2002 Turnback Water Pool Program closed April 1, 2002.

Table 9-1 lists contractors who participated in Pool A and Pool B of the Turnback Water Pool Program.

Table 9-1. 2002 Turnback Water Pool Program (Acre-feet)

Contractor	Sold	Purchased
Pool A		
Mojave	19,110	
San Geronio	300	
Ventura	6,750	
Alameda-Zone 7		556
Alameda County		299
Santa Clara		713
Dudley Ridge		409
Kern		7,133
Tulare		795
Santa Barbara		324
AVEK		1,008
Coachella Valley		165
Desert		271
Metropolitan		14,335
Palmdale		152
<i>Total</i>	<i>26,160</i>	<i>26,160</i>
Pool B		
Butte	900	
Yuba	3,261	
San Luis Obispo	100	
Mojave	11,379	
San Geronio	1,200	
Ventura	2,252	
Napa		283
Alameda County		563
Santa Clara		1,340
Oak Flat		76
Kings		54
Dudley Ridge		768
Kern		13,410
Tulare		1,494
Coachella Valley		309
Desert		510
Palmdale		285
<i>Total</i>	<i>19,092</i>	<i>19,092</i>

Storage of Water Outside Service Area. Pursuant to Article 56 of the Monterey Amendments, five SWP contractors have agreements with the Department to deliver and store SWP water outside their service area for later use within their service area. The following agreements include provisions concerning the points of delivery and method for transporting such water.

Alameda County Flood Control and Water Conservation District, Zone 7. A change in point of

delivery agreement pending execution, among the Department, Alameda-Zone 7, and Kern, will provide for the delivery of Alameda-Zone 7's approved 2001 carryover water and a portion of Alameda-Zone 7's approved 2002 SWP water supplies for storage in and later recovery from Semitropic, in accordance with the *Alameda County Flood Control and Water Conservation District, Zone 7 and Semitropic Water Storage District Banking Program Agreement*. Alameda-Zone 7 signed similar delivery agreements annually since 1998. All return water is to be delivered to Alameda-Zone 7 by December 31, 2012. During 2002, the Department delivered a total of 14,287 acre-feet of Alameda-Zone 7's approved SWP water to Reach 10A for storage in Semitropic, of which 4,000 acre-feet were 2002 Table A amounts, 8,000 acre-feet were 2001 extended carryover water, 1,484 acre-feet were Article 21 water, and 803 acre-feet were EWA exchange water. (SWPAO #02010)

Alameda County Water District. A change in point of delivery agreement, pending execution among the Department, Alameda County, and Kern, will provide for the delivery of a portion of Alameda County's approved 2002 SWP water supplies for storage and later recovery from Semitropic, in accordance with the Alameda County and Semitropic Banking Program Agreement. Alameda County has signed similar delivery agreements annually since 1996. All return water is to be delivered to Alameda County by December 31, 2012. During 2002, the Department delivered a total of 2,000 acre-feet of Alameda County's 2002 Table A amounts and 83 acre-feet of Article 21 water to Reach 10A for storage in Semitropic. (SWPAO #02009)

Castaic Lake Water Agency. A change in point of delivery agreement executed on December 19, 2002, among the Department, Castaic Lake, and Kern, approved the delivery of up to 24,000 acre-feet of Castaic Lake's 2002 approved Table A amounts for storage in and later recovery from Semitropic, in accordance with the *Castaic Lake and Semitropic Banking Program Agreement*. All return water is to be delivered to Castaic Lake by December 31, 2012. During

2002, the Department delivered 24,000 acre-feet of Castaic Lake's 2002 approved Table A amounts to Reach 10A for storage in Semitropic. (SWPAO #02015)

Dudley Ridge Water District. A change in point of delivery agreement executed on September 13, 2002, among the Department, Dudley Ridge, and Kern, approved the delivery of Dudley Ridge's 2001 carryover water, 2002 Article 21 water, and a portion of Dudley Ridge's 2002 SWP water supplies for storage in and later recovery from KWB. Dudley Ridge has signed similar delivery agreements annually since 1996. All return water is to be delivered to Dudley Ridge by December 31, 2012. During 2002, the Department delivered 140 acre-feet of Dudley Ridge's 2001 carryover water and 596 acre-feet of Article 21 water for storage in KWB. (SWPAO #02007)

Dudley Ridge Water District. A change in point of delivery agreement pending execution, among the Department, Dudley Ridge, and San Gabriel Valley Municipal Water District, will provide for the delivery of up to 1,800 acre-feet of Dudley Ridge's 2002 Table A amounts for storage in and later recovery from groundwater basins within San Gabriel. All return water is to be delivered to Dudley Ridge by December 31, 2012. During 2002, the Department delivered 1,800 acre-feet of Dudley Ridge's 2002 approved Table A amounts to Reach 26A for storage in San Gabriel Valley. (SWPAO #02032)

Dudley Ridge Water District. A letter agreement, executed November 19, 1996, among the Department, Dudley Ridge, and Kern, approved the delivery of up to 5,000 acre-feet of Dudley Ridge's 1996 Article 21 water and up to 1,000 acre-feet of Dudley Ridge's Table A amounts to KWB for storage and later recovery. The transfer was part of an exchange with Kern that allowed three landowners in Dudley Ridge to receive a like amount of water from Kern in future years when they could utilize the water more beneficially. The water is to be returned to Dudley Ridge by December 31, 2006. During 1996, a total of 4,131 acre-feet was delivered to Kern. According to the *Memorandum of Under-*

standing Regarding Operation and Monitoring of Kern Water Bank Groundwater Banking Program, executed on October 26, 1995, among Kern Water Bank participants, 94 percent of the water stored (3,883 acre-feet with 6 percent loss) will be returned to Dudley Ridge. During 2001, a total of 3,215 acre-feet was recovered and delivered to Dudley Ridge at Reach 8D. During 2002, a total of 668 acre-feet was recovered and delivered to Dudley Ridge at Reach 8D, completing this agreement. (SWPAO #96019)

Dudley Ridge Water District. A letter agreement, executed November 10, 1997, among the Department, Dudley Ridge, and Kern, approved the delivery of up to 5,000 acre-feet of Dudley Ridge's 1997 Article 21 water and up to 2,000 acre-feet of Dudley Ridge's Table A amounts to KWB for storage and later recovery. A like amount of water is to be returned to Dudley Ridge by December 31, 2007. During 1997, a total of 5,342 acre-feet was delivered to Kern. During 2002, a total of 721 acre-feet was recovered and delivered to Dudley Ridge at Reach 8D. (SWPAO #97021)

Santa Clara Valley Water District. A change in point of delivery agreement pending execution, among the Department, Santa Clara, and Kern, will provide for the delivery of a portion of Santa Clara's approved 2002 SWP water supplies for storage in and later recovery from Semitropic, in accordance with the *Santa Clara and Semitropic Banking Program Agreement*. Santa Clara has signed similar delivery agreements annually since 1996. All return water is to be delivered to Santa Clara by December 31, 2012. During 2002, the Department delivered 3,311 acre-feet of Santa Clara's 2001 carryover water to Semitropic. (SWPAO #02008)

Article 21 Water Program

Pursuant to Article 21 of the Monterey Amendments, Article 21 water replaces surplus, wet weather, and Article 12(d) 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. Article 21 water is available for delivery on a

short-term basis as determined by the Department when water is still available after operational requirements for project water deliveries, water quality, and other requirements are being met.

The conditions for the Article 21 Water Program for 2002 were described in the January 30, 2002, Notice to State Water Project Contractors No. 02-02. Fourteen participants signed the notice, which indicated acceptance of the criteria, procedures, and charges for the program, and collectively received a total of 37,139 acre-feet of Article 21 water.

Since Empire has not signed the Monterey Amendment, it may still receive unscheduled water for agricultural purposes. Empire received 26 acre-feet of unscheduled water in 2002.

Flexible Storage Program

Pursuant to Article 54 of the Monterey Amendments, the Flexible Storage Program provides SWP contractors participating in the repayment of the capital costs of Castaic Lake and Lake Perris the option to withdraw water in excess of approved deliveries. The objective of this program is to provide additional flexibility and water management benefits to local participating agencies.

Available "flexible storage" is approximately 50 percent of active storage, providing for 160,000 acre-feet at Castaic Lake and 65,000 acre-feet at Lake Perris. Participating contractors of the Castaic Lake program include Metropolitan, Ventura, and Castaic Lake. Each can withdraw a maximum amount of 153,940 acre-feet, 1,377 acre-feet, and 4,683 acre-feet, respectively. At Lake Perris, Metropolitan can withdraw a maximum amount of 65,000 acre-feet. Any participating contractor is given 5 years to replace the water with Table A amounts, purchased water, exchange water, or local water.

Two SWP contractors participated in the Flexible Storage Program in 2001. Metropolitan had a

negative balance of 10,692 acre-feet in Lake Perris at the end of 2001 and replaced 10,692 acre-feet in 2002, resulting in a zero water balance at the end of 2002. Metropolitan had a negative balance of 64,300 acre-feet in Castaic Lake at the end of 2001 and replaced 64,300 acre-feet in 2002, resulting in a zero water balance at the end of 2002. Castaic Lake Water Agency withdrew 395 acre-feet from Castaic Lake in 2002, leaving a negative balance of 395 acre-feet at the end of 2002.

Extended Carryover Program

Pursuant to Article 56 of the Monterey Amendments, contractors can elect to store project water outside of their service area for later use within their service area. Qualified contractors can request carryover Table A amounts for delivery in the following year to the extent that such deliveries do not adversely affect current or future project operations. Factors that influence how much extended carryover water can be delivered include operational constraints of project facilities, filling of SWP conservation storage facilities, flood control releases, and water quality restrictions. If storage requests exceed the available storage capacity, the amount available is allocated among the contractors requesting storage in proportion to their annual Table A amounts for that year. Four SWP contractors took delivery of 125,476 acre-feet of 2001 approved Table A amounts carried over into 2002 as extended carryover. One SWP contractor had 8,000 acre-feet of its extended carryover delivered to storage outside its service area.

2001 Carryover Program

To help contractors prepare for potentially limited water supplies in 2002, the Department provided a 2001 Carryover Program on January 2, 2002. Under this program, long-term SWP contractors were allowed to carry over a portion of their undelivered 2001 approved Table A amounts for storage in San Luis Reservoir during the first 3 months of 2002. This program is separate from other carryover programs afforded by Articles 12(e), 14(b), and 56 of the

long-term water supply contracts. Eleven SWP contractors took a total delivery of 34,695 acre-feet of 2001 approved Table A amounts carried over into 2002. Two SWP contractors had a combined total of 3,451 acre-feet of their carryover water delivered to storage outside their service areas.

Dry Year Water Purchase Program

In 2002, significant areas of California experienced water deficiencies. To reduce the possibility of adverse economic impacts and hardship associated with water shortages, the Department initiated the Dry Year Water Purchase Program. Four SWP contractors participated in the program by signing a Memorandum of Understanding with the Department. The participating agencies requested 22,050 acre-feet of dry year water. The Department obtained the water from Yuba County Water Agency, who made the water available through groundwater substitution and reservoir releases.

The four SWP contractors that participated in the dry year program and the amount of water they purchased are as follows:

- Kern—1,875 acre-feet
- Dudley Ridge—6,675 acre-feet
- Palmdale Water District—12,500 acre-feet
- Oak Flat—1,000 acre-feet

The participating agencies also entered into conveyance agreements with the Department to convey the dry year water across the Delta and through SWP facilities. Actual dry year water received by these agencies was less than the amount purchased at the source due to deductions for Delta carriage water losses (20 percent) and conveyance losses (2-3 percent). The total amount of dry year water delivered to the participating agencies was 17,119 acre-feet after deducting those losses.

Environmental Water Account

EWA is a cooperatively managed program intended to provide protection to the fish of the

Bay-Delta Estuary through environmentally beneficial changes and increased flexibility in the operations of the SWP and CVP, at no uncompensated water cost to the projects' water users. Responsibility for implementing EWA rests with the National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the Department of Fish and Game (management agencies), as well as with the Bureau of Reclamation and the Department (project agencies).

Under EWA, fish protection is achieved by periodically curtailing project water delivery from the Bay-Delta to project water users south of the Delta and replacing it at a later date within the same calendar year. This necessitates the acquisition of alternative sources of water, called *EWA assets*, which are used to replace the water supply lost during project curtailments. EWA assets consist of *variable assets*, which are acquired through changes in operations; *purchase assets*, which are acquired through purchases from willing water sellers; and *source shifting*, which involves deferral of scheduled delivery of water allocations by willing participants. EWA is considered operational for any year when these assets are in place and Endangered Species Act commitments are provided by the management agencies.

EWA's second operational year was 2002. The first fish actions occurred in January and continued throughout the year. Management agencies required 280,353 acre-feet of curtailments at Banks and Tracy Pumping Plants in the Delta for fish protection. All purchase asset acquisitions in 2002 were made by the Department and the Bureau as single-year transactions and studies were carried out to ensure that the transactions complied with CEQA.

In 2002, 38,147 acre-feet of EWA's purchased water were converted to project water, since San Luis Reservoir was filled to capacity. To minimize spillage of EWA water from San Luis Reservoir, the Department implemented a *2 for 1 exchange* with the State Water Contractors. A total of 40,012 acre-feet of water was transferred to the contractors in return for 20,006 acre-feet of water transferred back by the contractors in July

and August. Thus, a total of 20,006 acre-feet of water was saved for use later in the year. Twenty thousand acre-feet of purchased water were backed into Oroville Reservoir in anticipation of San Luis Reservoir filling and to reduce possible spillage of EWA assets.

The Department was able to compensate the SWP and CVP for pumping reductions by acquiring 75,952 acre-feet in variable assets and 206,158 acre-feet of purchase assets through contract agreements. A source shift was not implemented because there was not a risk of low-point problems at San Luis Reservoir. The initial year of EWA operation ended with 83,710 acre-feet of water for use during 2002. The second year of EWA operation ended with 23,357 acre-feet of water for use during 2003.

The following SWP contractors and non-SWP contractors participated in the EWA Program.

Purchase Assets

The purchase asset water amounts below represent the total amounts of water acquired for EWA from various sources. These amounts have not been adjusted to reflect conveyance losses. Table 9-3 provides the actual amounts of water delivered.

Kern County Water Agency. An agreement executed on June 28, 2002, between the Department, the Bureau, and Kern approved the purchase of up to 97,400 acre-feet of water stored in KWB through the exchange of approved Table A water for support of EWA under the CALFED Program. A total of 60,624 acre-feet of Kern's water was purchased. (SWPAO #02700)

Yuba County Water Agency. An agreement executed on February 1, 2002, between the Department and Yuba approved the transfer of up to 185,000 acre-feet of water from storage in New Bullards Bar Reservoir and groundwater substitution for support of EWA under the CALFED Program. A total of 135,000 acre-feet of Yuba's water was transferred. (SWPAO #02701)

The Sacramento Groundwater Authority. An agreement executed on June 7, 2002, between the Bureau and the Sacramento Groundwater Authority approved the transfer of up to 10,000 acre-feet of surface water for support of EWA under the CALFED Program. A total of 8,143 acre-feet of Sacramento Groundwater Authority's water was transferred, of which 7,143 acre-feet was used for instream flow purposes and the remaining 1,000 acre-feet was used as an EWA Purchase Asset. (SWPAO #02702)

Variable Assets

Relaxation of the Export/Import Ratio. The Department has the opportunity to gain water credits if the EWA managing agencies decide that the E/I ratio can be relaxed, thus allowing the SWP to pump any extra water that the fisheries do not need. A total of 75,952 acre-feet of water was credited to EWA. (SWPAO #02730)

2 for 1 Exchange. In March and April, San Luis Reservoir was at capacity and EWA was at risk of spilling assets. To minimize spillage, EWA transferred 40,012 acre-feet of water in San Luis Reservoir to the SWP contractors in return for 20,006 acre-feet of water in July and August. (See Table 9-2, EWA 2:1 Exchange.) Detailed information on the 2 for 1 exchange agreements, and the actual transfer operations, are provided in the *EWA 2:1 Exchange Agreements* section earlier in this chapter.

Table 9-2. EWA 2:1 Exchange (Acre-feet)

Contractor	Transferred	Returned
Alameda-Zone 7	803	402
Alameda County	571	286
Dudley Ridge	2,141	1,070
Kern	6,744	3,372
Metropolitan	27,630	13,815
Santa Clara	1,448	724
Tulare	675	337
Total	40,012	20,006

For additional information on EWA, see Chapter 7, *Water Supply Development and Reliability*.

Miscellaneous Agreements with Other Agencies

In addition to negotiating agreements with SWP contractors to provide for specified water deliveries, the Department also entered into several agreements with other agencies for water conveyance, or exchange, between January 1, 2002, and December 31, 2002.

Water Conveyance Agreements—CVP Water

The Department regularly enters into agreements to convey CVP water such as agreements with contractors receiving water from the Bureau through the Cross Valley Canal, a water conveyance facility that connects with the Aqueduct near Tupman in Kern County. Other agencies or corporations receive CVP water through agreements between the Department and the Bureau, including the U.S. Department of Veterans Affairs, USFWS, and Musco Olive Products, Inc. Occasionally, the Department also enters into agreements with the Bureau to convey CVP or SWP water from the Delta to O'Neill Forebay through CVP or SWP facilities. Some of these agreements allow the Bureau to make up for curtailed water exports from Tracy Pumping Plant associated with improving conditions for fish in the Delta. Other agreements allow replacing water exports foregone during maintenance and repair of Tracy and Banks Pumping Plants and CVP and SWP conveyance facilities between the Delta and O'Neill Forebay.

Cross Valley Canal. Eight CVP water contractors use CVC to obtain water from the California Aqueduct either by exchange with other agencies or by direct delivery. The eight water contractors are: County of Fresno, County of Tulare, Hills Valley Irrigation District, Kern-Tulare Water District, Lower Tule River Irrigation District, Pixley Irrigation District, Rag Gulch Water District, and Tri-Valley Water District. These agencies have had water conveyance service by the Department since 1976 through

- long-term 3-party contracts with the Department and the Bureau, executed in 1976, and

amendments extending the contracts through February 29, 1996; and

- interim renewal contracts: the first from March 1, 1996, through February 28, 1998; the second from March 1, 1998, through February 28, 2000; the third from March 1, 2000, through November 30, 2000; the fourth from December 1, 2000, through February 28, 2001; the fifth from March 1, 2001, through February 28, 2002; and the sixth from March 1, 2002 through February 28, 2003.

Between January 1, 2002, and December 31, 2002, the Department delivered CVP water to the CVC contractors as follows:

- In February 2002, four CVC contractors received the last portion of their 2001-02 renewal agreement's approved CVP water through Reach 12E. The Department conveyed 97 acre-feet of water for the County of Fresno, 100 acre-feet of water for Hills Valley Irrigation District, 35 acre-feet of water for Tri-Valley Water District, and 163 acre-feet of water for the County of Tulare. The total amount of water delivered in February 2002 to Reach 12E totaled 395 acre-feet. (SWPAO #s 01303, 01304, 01309, and 01310)
- From July through October 2002, six CVC contractors received their 2002-03 approved CVP water. County of Tulare, Tri-Valley Water District, Pixley Irrigation District, Lower Tule River Irrigation District, Hills Valley Irrigation District, and Fresno County Public Works received 3,981, 857, 3,110, 3,110, 2,510, and 1,950 acre-feet of water, respectively. The 2002-03 CVP water delivered to the CVC contractors totalled 15,518 acre-feet. (SWPAO #s 02300, 02301, 02303, 02304, 02306, and 02307)
- In April 2002, the Department conveyed a total of 6,148 acre-feet of surplus water (Section 215) from O'Neill Forebay to Reach 12E for five CVC contractors. Rag Gulch, Kern-Tulare, Tri-Valley, Hills Valley, and County of Tulare received 228, 572, 624, 1,826, and 2,898 acre-feet of surplus water, respectively. Conveyance agreements are expected to be executed in 2003.

- On June 6, 2002, Pixley requested the Department to convey up to 20,216 acre-feet of its CVP water to Westlands during the 2002 contract year. From July through August 2002, the Department delivered a total of 20,212 acre-feet of Pixley's CVP water to Westlands' turnouts in Reaches 4 through 7 of the California Aqueduct. The conveyance agreement is expected to be executed in February 2003.
- On June 6, 2002, Lower Tule River requested the Department to convey up to 10,984 acre-feet of its CVP water to Westlands. From July through August 2002, the Department conveyed a total of 10,984 acre-feet of the District's CVP water to Westlands' turnouts in Reaches 4 through 7 of the California Aqueduct. The conveyance agreement is expected to be signed in January 2003.
- On June 6, 2002, Kern-Tulare Water District requested the Department change the point of delivery for up to 2,000 acre-feet of the District's 2001 CVP water from the CVC turnout in Reach 12E to O'Neill Forebay for delivery to San Luis Water District. Under the agreement executed on September 27, 2002, the Department conveyed 1,932 acre-feet of water in August and September 2002 (SWPAO #02315).

Madera Irrigation District. On August 5, 2002, Madera Irrigation District requested that the Department convey 1,134 acre-feet of CVP water from the San Joaquin River Exchange Contractor Authority to Madera through SWP facilities. Under an agreement executed on October 25, 2002, the Department delivered 1,100 (1,134 minus 3 percent conveyance loss) acre-feet of water in September 2002. (SWPAO #02319)

Westlands Water District. On March 12, 2002, Westlands requested that the Department convey up to 15,000 acre-feet of Contra Costa Water District's CVP water to Westlands through SWP facilities. The Bureau approved the proposed transfer in a letter agreement to Westlands dated March 22, 2002. Westlands, as the lead agency, filed a Notice of Exemption for the

project on May 20, 2002. Between October and December 2002, the Department conveyed 7,760 acre-feet (8,000 acre-feet minus 3 percent loss) of water to Westlands under an agreement that is expected to be executed in January 2003.

U.S. Bureau of Reclamation. In a letter dated July 19, 2002, the Bureau requested that the Department convey up to 60,000 acre-feet of CVP water from Banks Pumping Plant to O'Neill Forebay pursuant to SWRCB Water Right Decision 1641, Joint Point of Diversion provisions. Included within the 60,000 acre-feet were 9,050 acre-feet of CVP water for Level 4 refuge water supplies. In September 2002, the Department conveyed 56,095 acre-feet (57,240 acre-feet minus 2 percent conveyance losses) of water to O'Neill Forebay under an agreement executed in September 18, 2002. (SWPAO #02318)

Musco Olive Products, Incorporated. An agreement dated October 22, 2001, among Musco Olive Products, Inc., the Department, and the Bureau, provides for the conveyance of up to 800 acre-feet of CVP water to Reach 2A of the California Aqueduct for use by Musco Olive Products, Inc. A total of 626 acre-feet was delivered in 2002 under this agreement (SWPAO #02320).

A second agreement dated November 13, 2002, among Musco Olive Products, Inc., the Department, and the Bureau, provides for the conveyance of up to 800 acre-feet of CVP water to Reach 2A of the California Aqueduct for use by Musco Olive Products, Inc. A total of 175 acre-feet was delivered in 2002 under this agreement. (SWPAO #02320)

U.S. Department of Veterans Affairs. A letter agreement dated March 3, 2002, among the U.S. Department of Veterans Affairs, the Department, and the Bureau, provided for the conveyance of up to 450 acre-feet of CVP approved water to Reach 2B of the California Aqueduct to the U.S. Department of Veterans Affairs' San Joaquin Valley National Cemetery. A total of 51 acre-feet was delivered to the National Cem-

etery in Reach 2B of the California Aqueduct in 2002 under this agreement. (SWPAO #01327)

A total of 16 acre-feet was delivered to the National Cemetery in Reach 2B of the California Aqueduct in 2002 under a pending letter agreement. (SWPAO #02321)

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, twelve 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. 012, executed February 3, 2002, extended the agreement through April 30, 2002, and defined the water delivery rates for 2001 and 2002. The Department conveyed 14,726 acre-feet of CVP water to Kern National Wildlife Refuge in 2002. A new 5-year agreement with the Bureau for Kern National Wildlife Refuge is currently pending.

Other Turnout Agreements. In 2002, there were no new turnout agreements with non-SWP contractor agencies.

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.

The Department approved deliveries of 824,000 acre-feet on November 30, 2001, resulting in initial approved Table A amounts of 20 percent of most SWP contractor requests. Above average precipitation occurred in Northern California during December, causing the Department to increase the 2002 approved Table A amounts to 1.86 million acre-feet, or 45 percent, on January 11, 2002. As water conditions improved, approved Table A amounts were increased to 2.3 million acre-feet (55 percent) on March 22; 2.5 million acre-feet (60 percent) on March 28; 2.68 million acre-feet (65 percent) on May 15; and finally to 2.89 million acre-feet (70 percent) on August 26.

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 2002, 4,053,989 acre-feet of water were conveyed to 26 long-term contractors and 24 other agencies. That amount includes

- 2,573,030 acre-feet of approved Table A water;

- 37,139 acre-feet of Article 21 water and 26 acre-feet of unscheduled water;
- 3,694 acre-feet of SWP water for recreation, fish and wildlife; and
- 1,141,622 acre-feet of water delivered to satisfy water rights settlement agreements and agreements with SWP contractors for local water supplies.

Figure 9-1 shows amounts of water delivered to various locations during 2002.

Specific information about water deliveries made to long-term contractors and other agencies during 2002 and historical deliveries from 1962 through 2002 are presented in the following three sections, each with a corresponding table:

- Water Delivered to Long-term Water Supply Contractors in 2002, by Service Area (Table 9-3);
- Water Delivered in 2002, by Month (Table 9-4); and
- Total Amounts of Annual Table A Water and Water Conveyed, by Type, 1962-02 (Table 9-5).

Water Deliveries and Credits to Long-Term SWP Contractors

Table 9-3 shows amounts of water delivered in 2002. The following information about specific columns in Table 9-3 is arranged by column number.

2002 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 2002.

Turnback Pool Water. Column 5 shows 45,252 acre-feet of turnback pool water was delivered to long-term water supply contractors in 2002.

2001 Carryover Approved Table A Water Delivered During 2002. 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 160,171 acre-feet of water was carried over from 2001 for delivery in 2002.

Total Table A Water Delivered. Column 8 shows all approved Table A water delivered in 2002—a total of 2,573,030 acre-feet.

2002 Water Bank Recoveries. Column 9 shows 38,188 acre-feet of water bank recoveries in 2002.

2002 Article 21 Water. Column 10 shows 37,165 acre-feet of 2002 Article 21 water delivered to long-term water supply contractors in 2002 (includes 37,139 acre-feet of Article 21 water and 26 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 17,119 acre-feet of Dry Year Water Purchase Program water delivered in 2002.

2002 Article 54 Flexible Storage Withdrawal Recoveries. Column 12 shows 395 acre-feet of Article 54, Flexible Storage Withdrawal in 2002.

Total SWP Water Delivered. Column 13 shows 2,665,897 acre-feet of total SWP water delivered in 2002. This includes total approved Table A water, water bank recoveries, Dry Year Water Purchase Program, Flexible Storage Withdrawal, and Article 21 and unscheduled water.

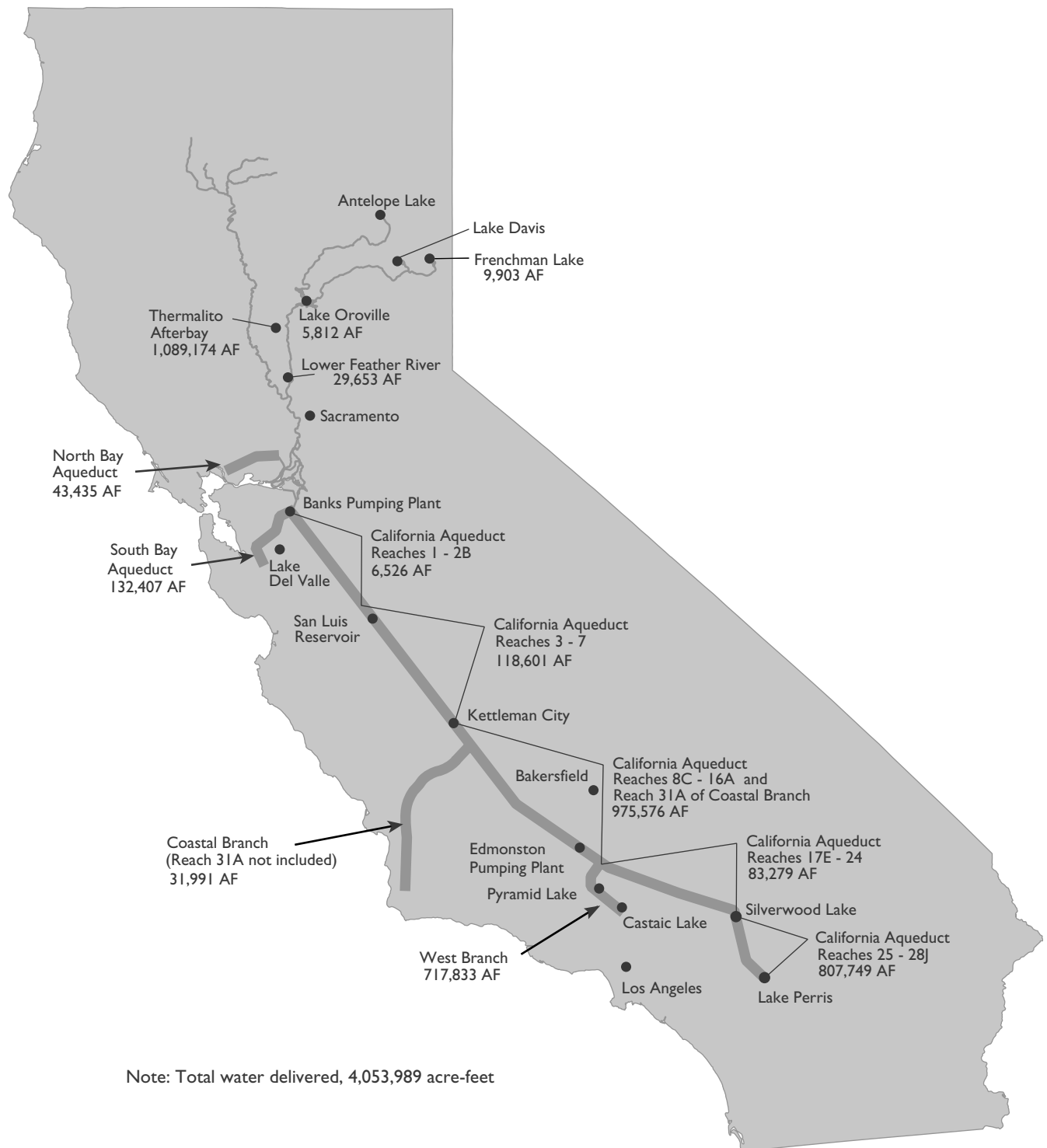


Figure 9-1. Water Delivered in 2002 and Delivery Locations of Long-Term Water Supply Contractors and Feather River Area Districts with Water Right Agreements with the Department

Table 9-3. Water Delivered to Long-Term Contractors through 2002, by Service Area (Acre-Feet)

Water Contractor or Agency	Approved Table A Water Deliveries								Water Bank Recoveries (9)	2002 Article 21 Water (10)	2002 Dry Year Water Purchase (11)	2002 Article 54 Flexible Withdrawal (12)	Total SWP Water Delivered (13)	Non-SWP Water Deliveries (14)	Total Deliveries (15)
	2002 Table A without Transfers, Exchanges, and Storage (1)	2002 Table A Supplied (Not a Delivery) (2)	2002 Table A Delivered through Transfers and Exchanges (3)	2002 Table A Delivered to Storage (4)	Pool Water (5)	Total 2002 Table A Delivered (6)	2001 Carryover Table A Delivered during 2002 (7)	Total Table A Deliveries (8)							
Feather River Area															
County of Butte	419	0	0	0	0	419	0	419	0	0	0	0	419	0	419
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	1,181	0	0	0	0	1,181	0	1,181	0	0	0	0	1,181	0	1,181
North Bay Area															
Napa County Flood Control and Water Conservation District	2,022	0	0	0	283	2,305	3,743	6,048	0	827	0	0	6,875	0	6,875
Solano County Water Agency	28,223	0	0	0	0	28,223	0	28,223	0	2,242	0	0	30,465	8,095 ^a	38,560
South Bay Area															
Alameda County Flood Control and Water Conservation District-Zone 7	36,305	402 ^b	0	4,000 ^c	556	40,861	8,113 ^c	48,974	0	1,484 ^c	0	0	50,458	9,243 ^d	59,701
Alameda County Water District	21,964	286 ^b	0	2,000 ^c	862	24,826	2,331	27,157	0	83 ^c	0	0	27,240	2,815 ^e	30,055
Santa Clara Valley Water District	55,172	724 ^b	0	0	2,053	57,225	3,311 ^c	60,536	0	202	0	0	60,738	1,448 ^f	62,186
San Joaquin Valley Area															
Castaic Lake Water Agency	2,737	0	0	0	0	2,737	0	2,737	0	0	0	0	2,737	0	2,737
County of Kings	2,800	0	0	0	54	2,854	0	2,854	0	0	0	0	2,854	0	2,854
Dudley Ridge Water District	35,818	1,070 ^b	1,800 ^g	0	1,177	38,795	1,994 ^h	40,789	1,389	1,861 ⁱ	5,180	0	49,219	2,140 ^f	51,359
Empire West Side Irrigation District	1,278	0	0	0	0	1,278	101	1,379	0	26 ⁱ	0	0	1,405	0	1,405
Kern County Water Agency	599,366	65,385 ^j	13,533 ^k	0	20,543	633,442	15,680	649,122	36,799	21,951	1,455	0	709,327	54,119 ^l	763,446
Oak Flat Water District	3,841	0	0	0	76	3,917	134	4,051	0	50	784	0	4,885	0	4,885
Tulare Lake Basin Water Storage District	58,381	337 ^b	15,067 ^m	0	2,289	75,737	5,385	81,122	0	3,749	0	0	84,871	11,631 ⁿ	96,502
Central Coastal Area															
San Luis Obispo County Flood Control and Water Conservation District	4,355	0	0	0	0	4,355	0	4,355	0	0	0	0	4,355	0	4,355
Santa Barbara County Flood Control and Water Conservation District	23,421	0	745 ^o	0	324	24,490	3,455	27,945	0	436	0	0	28,381	0	28,381
Southern California															
Antelope Valley-East Kern Water Agency	54,335	0	0	0	1,008	55,343	2,828	58,171	0	0	0	0	58,171	0	58,171
Castaic Lake Water Agency	35,143	0	0	24,000 ^c	0	59,143	6,657	65,800	0	280	0	395	66,475	0	66,475
Coachella Valley Water District	16,170	0	0	0	474	16,644	0	16,644	0	111	0	0	16,755	0	16,755
Crestline-Lake Arrowhead Water Agency	2,189	0	0	0	0	2,189	0	2,189	0	0	0	0	2,189	0	2,189
Desert Water Agency	26,670	0	0	0	781	27,451	0	27,451	0	189	0	0	27,640	0	27,640
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	1,190,348	82,857 ^p	0	0	14,335	1,204,683	97,940	1,302,623	0	9,624 ^q	0	0	1,306,297	27,630 ^f	1,333,927
Mojave Water Agency	4,346	0	0	0	0	4,346	0	4,346	0	0	0	0	4,346	0	4,346
Palmdale Water District	8,359	0	0	0	437	8,796	0	8,796	0	0	9,700	0	18,496	0	18,496
San Bernardino Valley Municipal Water District	33,268	0	35,000 ^r	0	0	68,268	3,801	72,069	0	0	0	0	72,069	0	72,069
San Gabriel Valley Municipal Water District	18,353	0	0	0	0	18,353	4,698	23,051	0	0	0	0	23,051	0	23,051
San Geronio Pass Water Agency	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ventura County Flood Control District	4,998	0	0	0	0	4,998	0	4,998	0	0	0	0	4,998	0	4,998
Total	2,271,462	151,061	66,145	30,000	45,252	2,412,859	160,171	2,573,030	38,188	37,165	17,119	395	2,665,897	117,121	2,783,018

^a Solano's permit water.^b Supplied to EWA (not counted in total delivery).^c 8,000 acre-feet delivered to Semitropic Water Bank.^d Alameda-Zone 7's 6,440 acre-feet of local water; 2,000 acre-feet of Byron-Bethany water; and 803 acre-feet of EWA 2:1 water.^e Alameda's 2,244 acre-feet of local water; 571 acre-feet of EWA 2:1 water.^f EWA 2:1 water.^g Dudley Ridge exchange to San Gabriel.^h Delivered to Kern Water Bank.ⁱ Empire's unscheduled water^j Kern supplied 63,996 acre-feet to EWA; exchange of 1,389 acre-feet to Dudley Ridge for Kern Water Bank water.^k Kern transferred 6,133 acre-feet to Dudley Ridge; exchanged 6,500 acre-feet to Del Puerto Water District, and exchanged 900 acre-feet to San Luis Water District.^l Kern's 6,744 acre-feet of EWA 2:1 water; 7,400 acre-feet exchanged from Del Puerto Water District and San Luis Water District; 1,932 acre-feet transferred from San Luis Water District; and 38,043 acre-feet of Article 55 water from Kern-Tulare and Rag Gulch.^m Tulare transferred 3,000 acre-feet to Westlands; exchanged 12,067 acre-feet to Westlands.ⁿ Tulare's 7,500 acre-feet of Article 55 water transferred from Lower Tule; 3,456 acre-feet of Article 215 exchange water from Lower Tule; and 675 acre-feet of EWA 2:1 water^o Santa Barbara exchanged with Dudley Ridge.^p Metropolitan supplied 13,815 acre-feet to EWA; used 69,042 acre-feet for Flexible Water Payback.^q Metropolitan's Article 21 includes 5,950 acre-feet for Flexible Water Payback. As a transaction and not a delivery, this number is not included in the total.^r San Bernardino transferred to Metropolitan.

Table 9-4. Water Delivered in 2002, by Month (Acre-feet)

Contracting Agency and Type of Service	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2002 Total Deliveries	2002 Contract Table A
Feather River Area														
City of Yuba City														
Approved Table A water	0	0	0	0	0	0	617	553	0	0	11	0	1,181	9,600
Pool B water sale ^a	3,261	0	0	0	0	0	0	0	0	0	0	0	3,261	
Agency total	0	0	0	0	0	0	617	553	0	0	11	0	1,181	
County of Butte														
Approved Table A water	67	15	1	15	39	41	48	58	59	7	23	46	419	3,500
Pool B water sale ^a	900	0	0	0	0	0	0	0	0	0	0	0	900	
Agency total	67	15	1	15	39	41	48	58	59	7	23	46	419	
Plumas County Flood Control and Water Conservation District														
Approved Table A water	0	0	0	0	0	0	0	0	0	0	0	0	0	1,630
Recreation/Fish and Wildlife														
Recreation/fish and wildlife water	0	0	0	0	0	0	1	1	1	1	0	0	4	
Last Chance Creek Water District														
Regulated delivery of local supply	0	0	0	30	2,985	2,815	1,702	1,714	498	127	32	0	9,903	
Thermalito Irrigation District														
Regulated delivery of local supply	0	0	33	180	261	378	448	390	313	248	138	0	2,389	
Oroville-Wyandotte Irrigation District														
Regulated delivery of local supply	14	0	0	215	813	835	979	985	995	942	34	0	5,812	
Western Canal Water District														
Regulated delivery of local supply	297	0	0	16,292	53,589	56,454	62,360	37,895	5,992	21,855	30,182	14,296	299,212	
Joint Water Districts Board														
Regulated delivery of local supply	25,870	0	0	45,820	113,200	122,320	129,560	104,450	50,690	72,450	66,280	56,510	787,150	
Oswald Water District														
Regulated delivery of local supply	0	0	0	0	0	71	96	37	71	12	0	0	287	
Tudor Mutual Water Company														
Regulated delivery of local supply	0	0	0	38	862	904	867	308	529	6	0	0	3,514	
Garden Highway Mutual Water Company														
Regulated delivery of local supply	0	0	0	1,894	2,203	3,138	1,999	2,312	1,568	2,544	0	0	15,658	
Plumas Mutual Water Company														
Regulated delivery of local supply	0	0	0	627	1,534	1,730	1,775	784	1,461	44	0	0	7,955	
Dana Brothers														
Regulated delivery of local supply	0	0	0	130	206	357	230	134	1	0	0	0	1,058	
SWP	67	15	1	15	39	41	666	612	60	8	34	46	1,604	
Non-SWP	26,181	0	33	65,226	175,653	189,002	200,016	149,009	62,118	98,228	96,666	70,806	1,132,938	
Feather River Area Total	26,248	15	34	65,241	175,692	189,043	200,682	149,621	62,178	98,236	96,700	70,852	1,134,542	14,730
North Bay Area														
Napa County Flood Control and Water Conservation District														
Approved Table A water	0	0	0	0	0	0	0	0	445	350	868	359	2,022	21,100
Article 21 water	132	0	355	340	0	0	0	0	0	0	0	0	827	
Article 56(c) extended carryover	277	119	532	776	290	660	714	316	59	0	0	0	3,743	
Pool B water	0	0	0	0	0	0	0	283	0	0	0	0	283	
Agency Total	409	119	887	1,116	290	660	714	599	504	350	868	359	6,875	
Solano County Water Agency														
Approved Table A water	165	855	1,483	1,988	2,329	3,981	4,595	4,568	3,837	2,252	1,645	525	28,223	46,296
Article 21 water	400	46	0	0	1,796	0	0	0	0	0	0	0	2,242	
Vallejo Permit water	0	0	0	263	467	977	907	792	1,074	1,782	1,281	552	8,095	
Agency Total	565	901	1,483	2,251	4,592	4,958	5,502	5,360	4,911	4,034	2,926	1,077	38,560	
SWP	974	1,020	2,370	3,104	4,415	4,641	5,309	5,167	4,341	2,602	2,513	884	37,340	
Non-SWP	0	0	0	263	467	977	907	792	1,074	1,782	1,281	552	8,095	
North Bay Area Total	974	1,020	2,370	3,367	4,882	5,618	6,216	5,959	5,415	4,384	3,794	1,436	45,435	67,396
South Bay Area														
Alameda County Flood Control and Water Conservation District, Zone 7														
Approved Table A water	0	585	1,568	1,466	5,083	5,256	4,740	4,271	5,352	5,667	2,317	0	36,305	78,000
Approved Table A water stored in Semitropic ^a	0	0	0	0	0	0	0	1,000	3,000	0	0	0	4,000	
Approved Table A water to EWA ^a	0	0	0	0	0	0	200	202	0	0	0	0	402	
Article 21 water stored in Semitropic ^a	0	0	397	1,087	0	0	0	0	0	0	0	0	1,484	
Article 56(c) extended carryover	96	17	0	0	0	0	0	0	0	0	0	0	113	
Article 56(c) extended carryover stored in Semitropic ^a	1,081	6,919	0	0	0	0	0	0	0	0	0	0	8,000	
EWA water (2:1) stored in Semitropic ^a	0	0	0	803	0	0	0	0	0	0	0	0	803	
Transfer water from Byron-Bethany	0	0	0	0	0	0	0	1,000	1,000	0	0	0	2,000	
Local water	1,008	457	681	2,704	88	24	90	29	123	106	167	963	6,440	
Pool A water	0	0	0	0	0	0	556	0	0	0	0	0	556	
Agency Total	1,104	1,059	2,249	4,170	5,171	5,280	5,386	5,300	6,475	5,773	2,484	963	45,414	
Alameda County Water District														
Approved Table A water	0	0	999	1,724	2,243	2,102	3,747	3,756	3,485	3,301	607	0	21,964	42,000
Approved Table A water stored in Semitropic ^a	0	0	0	0	0	0	0	0	2,000	0	0	0	2,000	
Approved Table A water to EWA ^a	0	0	0	0	0	0	100	186	0	0	0	0	286	

^aExcluded water

Table 9-4. Water Delivered in 2002, by Month (Acre-feet)

Contracting Agency and Type of Service	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2002 Total Deliveries	2002 Contract Table A
Article 21 water stored in Semitropic ^a	0	0	0	83	0	0	0	0	0	0	0	0	83	
Carryover special (2001)	986	1,345	0	0	0	0	0	0	0	0	0	0	2,331	
EWA water received (2:1)	0	0	131	440	0	0	0	0	0	0	0	0	571	
Local water	973	208	411	0	0	0	53	29	123	106	0	341	2,244	
Pool A water	0	0	0	0	0	299	0	0	0	0	0	0	299	
Pool B water	0	0	0	0	0	563	0	0	0	0	0	0	563	
Agency Total	1,959	1,553	1,541	2,164	2,243	2,964	3,800	3,785	3,608	3,407	607	341	27,972	
Santa Clara Valley Water District														
Approved Table A water	0	0	1,612	2,255	5,130	7,513	10,292	11,112	9,362	2,819	3,415	1,662	55,172	100,000
Approved Table A water to EWA ^a	0	0	0	0	0	0	350	374	0	0	0	0	724	
Article 21 water	0	0	0	202	0	0	0	0	0	0	0	0	202	
Carryover special (2001) stored in Semitropic ^a	3,311	0	0	0	0	0	0	0	0	0	0	0	3,311	
EWA water received (2:1)	0	0	337	1,111	0	0	0	0	0	0	0	0	1,448	
Pool A water	0	0	0	0	0	713	0	0	0	0	0	0	713	
Pool B water	0	0	0	0	0	1,340	0	0	0	0	0	0	1,340	
Agency Total	0	0	1,949	3,568	5,130	9,566	10,292	11,112	9,362	2,819	3,415	1,662	58,875	
Recreation/Fish and Wildlife														
Recreation/fish and wildlife water, Lake Del Valle	3	2	4	7	13	23	29	26	22	12	3	2	146	
SWP	1,085	1,949	4,183	5,654	12,469	17,809	19,364	19,165	18,221	11,799	6,342	1,664	119,704	
Non-SWP	1,981	665	1,560	4,255	88	24	143	1,058	1,246	212	167	1,304	12,703	
South Bay Area Total	3,066	2,614	5,743	9,909	12,557	17,833	19,507	20,223	19,467	12,011	6,509	2,968	132,407	220,000
San Joaquin Valley Area														
Castaic Lake Water Agency														
Approved Table A water	0	0	0	0	0	0	0	0	0	0	1,414	1,323	2,737	12,700
County of Kings														
Approved Table A water	0	0	0	0	400	400	500	500	400	0	0	600	2,800	4,000
Pool B water	0	0	0	0	0	54	0	0	0	0	0	0	54	
Agency Total	0	0	0	0	400	454	500	500	400	0	0	600	2,854	
Dudley Ridge Water District														
Approved Table A water	0	892	4,050	1,257	1,400	7,881	9,600	2,888	3,991	2,309	769	781	35,818	57,343
Approved Table A water delivered to EWA ^a	0	0	0	0	0	0	500	570	0	0	0	0	1,070	
Article 21 water	0	0	687	578	0	0	0	0	0	0	0	0	1,265	
Article 21 water stored in Kern Water Bank ^a	0	0	246	350	0	0	0	0	0	0	0	0	596	
Bank water recovery, Kern Water Bank	0	0	0	1,389	0	0	0	0	0	0	0	0	1,389	
Carryover special (2001)	1,185	669	0	0	0	0	0	0	0	0	0	0	1,854	
Carryover special (2001) stored in Kern Water Bank ^a	140	0	0	0	0	0	0	0	0	0	0	0	140	
Dudley Ridge's EWA 2:1 water delivered through Tulare ^a	0	0	170	373	0	0	0	0	0	0	0	0	543	
Dry Year Water Purchase Program	0	0	0	0	3,580	1,600	0	0	0	0	0	0	5,180	
EWA water received (2:1)	0	0	42	1,555	0	0	0	0	0	0	0	0	1,597	
Exchange approved Table A water to San Gabriel ^a	0	0	0	0	0	0	0	0	0	0	1,800	0	1,800	
Pool A water	0	0	0	0	409	0	0	0	0	0	0	0	409	
Pool B water	0	0	0	0	768	0	0	0	0	0	0	0	768	
Transfer approved Table A water from Kern	0	0	0	0	0	0	801	5,332	0	0	0	0	6,133	
Exchange of approved water from Santa Barbara	0	0	0	0	0	0	0	0	0	745	0	0	745	
Agency Total	1,185	1,561	4,779	4,779	6,157	9,481	10,401	8,220	3,991	3,054	769	781	55,158	
Empire West Side Irrigation District														
Approved Table A water	0	750	0	385	29	114	0	0	0	0	0	0	1,278	3,000
Carryover special (2001)	0	101	0	0	0	0	0	0	0	0	0	0	101	
Unscheduled water	0	0	0	26	0	0	0	0	0	0	0	0	26	
Agency Total	0	851	0	411	29	114	0	0	0	0	0	0	1,405	
Kern County Water Agency														
Approved Table A water	9,532	28,910	39,103	21,543	45,678	144,343	134,801	98,664	38,071	31,073	2,650	4,225	598,593	1,000,949
Approved Table A water delivered to EWA (2:1 return) ^a	0	0	0	0	0	0	1,500	1,872	0	0	0	0	3,372	
Approved Table A water delivered to EWA ^a	0	0	0	0	0	0	0	32,400	15,000	0	13,224	0	60,624	
Approved Table A water delivered to Western Hills	0	0	8	89	92	107	136	123	87	113	6	12	773	
Article 21 water	0	0	5,752	16,199	0	0	0	0	0	0	0	0	21,951	
Article 56(c) extended carryover	11,135	4,532	13	0	0	0	0	0	0	0	0	0	15,680	
Dry Year Water Purchase Program	0	0	0	0	0	0	0	1,455	0	0	0	0	1,455	
EWA water received (2:1)	0	0	1,349	5,395	0	0	0	0	0	0	0	0	6,744	
Exchange water from Del Puerto Water District	0	6,500	0	0	0	0	0	0	0	0	0	0	6,500	
Exchange water from San Luis Water District	0	900	0	0	0	0	0	0	0	0	0	0	900	
Exchange approved Table A water to Del Puerto ^a	0	0	0	0	0	0	0	0	5,050	1,450	0	0	6,500	
Exchange approved Table A water to San Luis ^a	0	0	0	0	0	0	0	0	900	0	0	0	900	
Exchange approved Table A water to Dudley Ridge for water bank water ^a	0	0	0	1,389	0	0	0	0	0	0	0	0	1,389	
Pool A water	0	0	0	0	0	0	6,875	258	0	0	0	0	7,133	
Pool B water	0	0	0	0	0	0	12,925	485	0	0	0	0	13,410	
Turn-in water recovered by Kern	0	0	0	13,734	12,549	571	0	0	0	0	5,645	4,300	36,799	
Transfer of approved Table A water to Dudley Ridge ^a	0	0	0	0	0	0	801	5,332	0	0	0	0	6,133	
Article 55 water from Kern-Tulare	0	0	0	0	0	0	0	14,291	0	4,466	265	0	19,022	

^aExcluded water

Table 9-4. Water Delivered in 2002, by Month (Acre-feet)

Contracting Agency and Type of Service	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2002 Total Deliveries	2002 Contract Table A
Article 55 water from Rag Gulch	0	0	0	0	0	0	0	14,291	0	4,466	264	0	19,021	
Transfer water from San Luis Water District	0	1,932	0	0	0	0	0	0	0	0	0	0	1,932	
Agency Total	20,667	42,774	46,225	56,960	58,319	145,021	154,737	129,567	38,158	40,118	8,830	8,537	749,913	
Water Bank Deliveries														
Approved Table A water from Alameda-Zone 7 stored in Semitropic	0	0	0	0	0	0	0	1,000	3,000	0	0	0	4,000	
Article 21 water from Alameda-Zone 7 stored in Semitropic	0	0	397	1,087	0	0	0	0	0	0	0	0	1,484	
Article 56(c) extended carryover water from Alameda-Zone 7 stored in Semitropic	1,081	6,919	0	0	0	0	0	0	0	0	0	0	8,000	
EWA 2:1 water from Alameda-Zone 7 stored in Semitropic	0	0	0	803	0	0	0	0	0	0	0	0	803	
Approved Table A water from Alameda County stored in Semitropic	0	0	0	0	0	0	0	0	2,000	0	0	0	2,000	
Article 21 water from Alameda County stored in Semitropic	0	0	0	83	0	0	0	0	0	0	0	0	83	
Carryover special (2001) water from Santa Clara stored in Semitropic	3,311	0	0	0	0	0	0	0	0	0	0	0	3,311	
Approved Table A water from Castaic stored in Semitropic	0	0	0	0	0	0	0	0	3,332	12,819	3,408	4,441	24,000	
Article 21 water from Dudley Ridge stored in Kern Water Bank	0	0	246	350	0	0	0	0	0	0	0	0	596	
Carryover special (2001) water from Dudley Ridge stored in Kern Water Bank	140	0	0	0	0	0	0	0	0	0	0	0	140	
Agency Total	25,199	48,793	46,868	59,283	58,319	145,021	154,737	130,567	46,490	52,937	12,238	12,978	793,430	
Oak Flat Water District														
Approved Table A water	0	0	231	566	1,012	875	712	149	234	40	17	5	3,841	5,700
Article 21 water	0	0	0	50	0	0	0	0	0	0	0	0	50	
Carryover special (2001)	18	84	32	0	0	0	0	0	0	0	0	0	134	
Dry Year Water Purchase Program	0	0	0	0	0	200	200	384	0	0	0	0	784	
Pool B water	0	0	0	0	0	0	76	0	0	0	0	0	76	
Agency Total	18	84	263	616	1,012	1,075	988	533	234	40	17	5	4,885	
Tulare Lake Basin Water Storage District														
Approved Table A water	0	644	3,900	5,726	6,580	30,019	5,872	969	950	1,758	0	1,963	58,381	111,527
Approved Table A water to EWA ^a	0	0	0	0	0	100	237	0	0	0	0	0	337	
Article 21 water	0	0	1,942	1,807	0	0	0	0	0	0	0	0	3,749	
Carryover special (2001)	5,058	327	0	0	0	0	0	0	0	0	0	0	5,385	
EWA water received (2:1)	0	0	278	397	0	0	0	0	0	0	0	0	675	
Exchange approved Table A water to Westlands ^a	0	0	0	0	5,250	5,250	0	0	1,567	0	0	0	12,067	
Article 55 water from Lower Tule to Tulare	0	0	0	0	0	0	0	7,500	0	0	0	0	7,500	
Section 215 water exchange from Lower Tule	0	0	0	3,456	0	0	0	0	0	0	0	0	3,456	
Pool A water	0	0	0	0	0	639	0	156	0	0	0	0	795	
Pool B water	0	0	0	0	0	1,015	0	479	0	0	0	0	1,494	
Transfer approved Table A water to Westlands ^a	0	0	0	0	0	0	0	3,000	0	0	0	0	3,000	
Dudley Ridge's EWA 2:1 water delivered through Tulare	0	0	170	373	0	0	0	0	0	0	0	0	543	
Agency Total	5,058	971	6,290	11,759	6,580	31,673	5,872	9,104	950	1,758	0	1,963	81,978	
Westlands Water District														
CVP water from Lower Tule	0	0	0	0	0	0	5,216	5,768	0	0	0	0	10,984	
CVP water from Pixley	0	0	0	0	0	0	7,935	12,277	0	0	0	0	20,212	
Transfer water from Contra Costa	0	0	0	0	0	0	0	0	0	4,229	2,634	897	7,760	
Exchange approved Table A water from Tulare	0	0	0	0	5,250	5,250	0	0	1,567	0	0	0	12,067	
Transfer approved Table A water from Tulare	0	0	0	0	0	0	0	3,000	0	0	0	0	3,000	
Agency Total	0	0	0	0	5,250	5,250	13,151	21,045	1,567	4,229	2,634	897	54,023	
Recreation/Fish and Wildlife														
Department of Fish and Game, O'Neill Forebay/Lateral 4	43	34	48	25	29	40	57	37	43	58	36	32	482	
Department of Parks and Recreation, O'Neill Forebay/San Luis/Cattle	2	0	4	8	11	13	19	11	9	7	0	2	86	
Total	45	34	52	33	40	53	76	48	52	65	36	34	568	
EWA Program														
EWA 2:1 water to Alameda-Zone 7 ^a	0	0	0	803	0	0	0	0	0	0	0	0	803	
EWA 2:1 water to Alameda County ^a	0	0	131	440	0	0	0	0	0	0	0	0	571	
EWA 2:1 water to Dudley Ridge ^a	0	0	42	1,556	0	0	0	0	0	0	0	0	1,597	
Dudley Ridge's EWA 2:1 water delivered through Tulare ^a	0	0	170	373	0	0	0	0	0	0	0	0	543	
EWA 2:1 water to Kern ^a	0	0	1,349	5,395	0	0	0	0	0	0	0	0	6,744	
EWA 2:1 water to Metropolitan ^a	0	0	6,347	21,283	0	0	0	0	0	0	0	0	27,630	
EWA 2:1 water to Santa Clara ^a	0	0	337	1,111	0	0	0	0	0	0	0	0	1,448	
EWA 2:1 water to Tulare ^a	0	0	278	397	0	0	0	0	0	0	0	0	675	
Approved Table A water from Alameda-Zone 7 to EWA	0	0	0	0	0	0	200	202	0	0	0	0	402	
Approved Table A water from Alameda County to EWA	0	0	0	0	0	0	100	186	0	0	0	0	286	
Approved Table A water from Dudley Ridge to EWA	0	0	0	0	0	0	500	570	0	0	0	0	1,070	
Approved Table A water from Kern to EWA for 2:1 exchange	0	0	0	0	0	0	1,500	1,872	0	0	0	0	3,372	
Approved Table A water from Kern to EWA (groundwater purchase)	0	0	0	0	0	32,400	15,000	0	13,224	0	0	0	60,624	
Approved Table A water from Metropolitan to EWA	0	0	0	0	0	0	7,000	6,815	0	0	0	0	13,815	
Approved Table A water from Santa Clara to EWA	0	0	0	0	0	0	350	374	0	0	0	0	724	
Approved Table A water from Tulare to EWA	0	0	0	0	0	100	237	0	0	0	0	0	337	
EWA relaxation	0	75,952	0	0	0	0	0	0	0	0	0	0	75,952	
EWA water purchased from a non-SWP contractor	0	0	0	0	0	13,448	43,824	0	5,502	0	0	0	62,774	
Total EWA water	0	75,952	0	0	0	45,948	68,711	10,019	18,726	0	0	0	219,356	
SWP	31,505	43,862	56,413	64,234	74,207	191,321	172,374	114,051	53,684	48,922	13,945	17,684	882,870	
Non-SWP	0	9,332	1,839	11,979	3,580	1,800	13,351	55,966	0	13,161	3,163	897	115,068	

^aExcluded water

Table 9-4. Water Delivered in 2002, by Month (Acre-feet)

Contracting Agency and Type of Service	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2002 Total Deliveries	2002 Contract Table A
San Joaquin Valley Area subtotal	31,505	53,194	58,252	76,213	77,787	193,121	185,725	170,017	53,684	62,083	17,108	18,581	997,938	
CVP Water Conveyed--Annual Contracts														
Plain View Water District/ Musco Olive Products, Inc.	78	43	59	67	68	71	76	74	90	0	0	0	626	
Plain View Water District/ Musco Olive Products, Inc.	0	0	0	0	0	0	0	0	0	111	61	3	175	
U.S. Department of Veteran Affairs, S.J.V. National Cemetery	2	2	3	7	6	7	10	8	6	0	0	0	51	
U.S. Department of Veteran Affairs, S.J.V. National Cemetery	0	0	0	0	0	0	0	0	0	9	4	3	16	
Subtotal	80	45	62	74	74	78	86	82	96	120	65	6	868	
Cross Valley Canal Contracts														
CVP water to Tulare	0	163	0	0	0	0	0	0	0	0	0	0	163	
CVP water to County of Tulare	0	0	0	0	0	0	3,450	0	227	304	0	0	3,981	
CVP water to Fresno County Public Works	0	97	0	0	0	0	0	0	0	0	0	0	97	
CVP water to Fresno County Public Works	0	0	0	0	0	0	1,950	0	0	0	0	0	1,950	
CVP water to Hills Valley Irrigation District	0	100	0	0	0	0	0	0	0	0	0	0	100	
CVP water to Hills Valley Irrigation District	0	0	0	0	0	0	2,175	0	143	192	0	0	2,510	
CVP water to Lower Tule	0	0	0	0	0	0	0	0	1,320	1,790	0	0	3,110	
CVP water to Pixley	0	0	0	0	0	0	0	0	1,320	1,790	0	0	3,110	
CVP water to Tri-Valley Water District	0	35	0	0	0	0	0	0	0	0	0	0	35	
CVP water to Tri-Valley Water District	0	0	0	0	0	0	742	0	48	67	0	0	857	
Kern-Tulare water to San Luis Water District	0	0	0	0	0	0	0	1,418	514	0	0	0	1,932	
Lower Tule water to Westlands	0	0	0	0	0	0	5,216	5,768	0	0	0	0	10,984	
Pixley water to Westlands	0	0	0	0	0	0	7,935	12,277	0	0	0	0	20,212	
Lower Tule to Tulare ^a	0	0	0	3,456	0	0	0	0	0	0	0	0	3,456	
Article 55 from Rag Gulch to Kern ^a	0	0	0	0	0	0	0	14,291	0	4,466	264	0	19,021	
Article 55 from Kern-Tulare to Kern ^a	0	0	0	0	0	0	0	14,291	0	4,466	265	0	19,022	
Article 55 from Lower Tule to Tulare ^a	0	0	0	0	0	0	0	7,500	0	0	0	0	7,500	
Section 215 CVP water to County of Tulare	0	0	0	2,898	0	0	0	0	0	0	0	0	2,898	
Section 215 CVP water to Hills Valley Irrigation District	0	0	0	1,826	0	0	0	0	0	0	0	0	1,826	
Section 215 CVP water to Kern-Tulare	0	0	0	572	0	0	0	0	0	0	0	0	572	
Section 215 CVP water to Rag Gulch	0	0	0	228	0	0	0	0	0	0	0	0	228	
Section 215 CVP water to Tri-Valley Water District	0	0	0	624	0	0	0	0	0	0	0	0	624	
Agency Total	0	395	0	6,148	0	0	8,317	0	3,058	4,143	0	0	22,061	
Bureau of Reclamation														
Conveyance of CVP water to O'Neill Forebay	0	0	0	0	0	0	0	0	56,095	0	0	0	56,095	
Delivery of Kern-Tulare water to San Luis Water District ^a	0	0	0	0	0	0	0	1,418	514	0	0	0	1,932	
Exchange water to Del Puerto from Kern	0	0	0	0	0	0	0	0	5,050	1,450	0	0	6,500	
Exchange water to San Luis Water District from Kern	0	0	0	0	0	0	0	0	900	0	0	0	900	
Kern National Wildlife Refuge	808	690	0	0	89	280	60	1,096	3,865	1,613	4,656	1,569	14,726	
Recreation/fish and wildlife water	85	32	38	30	30	46	59	43	41	53	31	27	515	
Transfer of Contra Costa water to Westlands ^a	0	0	0	0	0	0	0	0	0	4,229	2,634	897	7,760	
Transfer of San Joaquin River Authority water to Madera Irrigation District	0	0	0	0	0	0	0	0	1,100	0	0	0	1,100	
Transfer of San Luis Water District water to Kern ^a	0	1,932	0	0	0	0	0	0	0	0	0	0	1,932	
Agency Total	893	722	38	30	119	326	119	2,557	66,665	7,345	7,321	2,493	88,628	
SWP	0	0	0	0	0	0	0	0	5,950	1,450	0	0	7,400	
Non-SWP	973	1,162	100	6,252	193	404	8,522	1,221	64,255	5,929	4,752	1,602	95,365	
San Joaquin Valley Area subtotal	973	1,162	100	6,252	193	404	8,522	1,221	70,205	7,379	4,752	1,602	102,765	
SWP (Total)	31,505	43,862	56,413	64,234	74,207	191,321	172,374	114,051	59,634	50,372	13,945	17,684	890,270	
Non-SWP (Total)	973	10,494	1,939	18,231	3,773	2,204	21,873	57,187	64,255	19,090	7,915	2,499	210,433	
San Joaquin Valley Area Total	32,478	54,356	58,352	82,465	77,980	193,525	195,247	171,238	123,889	69,462	21,860	20,183	1,100,703	1,195,219
Central Coastal Area														
San Luis Obispo County Flood Control and Water Conservation District														
Approved Table A water	197	411	338	347	399	431	469	451	421	367	225	299	4,355	25,000
Pool B water sale ^a	100	0	0	0	0	0	0	0	0	0	0	0	100	
Agency Total	197	411	338	347	399	431	469	451	421	367	225	299	4,355	
Santa Barbara County Flood Control and Water Conservation District														
Approved Table A water	0	123	796	1,882	2,887	2,401	2,576	3,288	3,210	2,452	1,851	1,955	23,421	45,486
Article 21 water	0	0	99	337	0	0	0	0	0	0	0	0	436	
Carryover special (2001)	1,404	1,073	978	0	0	0	0	0	0	0	0	0	3,455	
Pool A water	0	0	0	0	324	0	0	0	0	0	0	0	324	
Exchange of approved Table A water to Dudley Ridge ^a	0	0	0	0	0	0	0	0	0	745	0	0	745	
Agency Total	1,404	1,196	1,873	2,219	3,211	2,401	2,576	3,288	3,210	2,452	1,851	1,955	27,636	
SWP	1,601	1,607	2,211	2,566	3,610	2,832	3,045	3,739	3,631	2,819	2,076	2,254	31,991	
Non-SWP	0	0	0	0	0	0	0	0	0	0	0	0	0	
Central Coastal Area Total	1,601	1,607	2,211	2,566	3,610	2,832	3,045	3,739	3,631	2,819	2,076	2,254	31,991	70,486

^aExcluded water

Table 9-4. Water Delivered in 2002, by Month (Acre-feet)

Contracting Agency and Type of Service	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2002 Total Deliveries	2002 Contract Table A
Southern California Area														
Antelope Valley-East Kern Water Agency														
Approved Table A water	428	779	3,176	4,304	5,516	7,384	7,663	8,129	6,771	4,775	2,826	2,087	53,838	141,400
AVEK's approved Table A water delivered through Littlerock ^a	0	0	0	0	0	22	146	165	91	51	22	0	497	
Mojave's approved Table A water delivered through AVEK	56	61	92	95	128	205	156	202	155	105	77	38	1,370	
Carryover special (2001)	1,649	1,179	0	0	0	0	0	0	0	0	0	0	2,828	
Pool A water	0	0	0	0	0	0	1,008	0	0	0	0	0	1,008	
Agency Total	2,133	2,019	3,268	4,399	5,644	7,589	8,827	8,331	6,926	4,880	2,903	2,125	59,044	
Castaic Lake Water Agency														
Approved Table A water	0	0	1,615	2,425	3,593	4,420	5,146	5,051	4,810	3,876	2,627	1,580	35,143	82,500
Approved Table A water stored in Semitropic	0	0	0	0	0	0	0	0	3,332	12,819	3,408	4,441	24,000	
Article 21 water	0	0	0	280	0	0	0	0	0	0	0	0	280	
Carryover special (2001)	2,869	2,517	1,271	0	0	0	0	0	0	0	0	0	6,657	
Flexible storage withdrawal	0	0	0	0	0	0	0	0	0	0	0	395	395	
Agency Total	2,869	2,517	2,886	2,705	3,593	4,420	5,146	5,051	4,810	3,876	2,627	1,975	42,475	
Coachella Valley Water District														
Approved Table A water	0	0	1,387	1,387	1,532	1,532	1,532	1,763	1,763	1,763	1,763	1,748	16,170	23,100
Article 21 water	0	0	16	95	0	0	0	0	0	0	0	0	111	
Pool A water	0	0	0	0	0	0	165	0	0	0	0	0	165	
Pool B water	0	0	0	0	0	0	309	0	0	0	0	0	309	
Agency Total	0	0	1,403	1,482	1,532	1,532	2,006	1,763	1,763	1,763	1,763	1,748	16,755	
Crestline-Lake Arrowhead Water Agency														
Approved Table A water	113	115	95	117	170	236	296	296	249	202	159	141	2,189	5,800
Agency Total	113	115	95	117	170	236	296	296	249	202	159	141	2,189	
Desert Water Agency														
Approved Table A water	0	0	2,287	2,287	2,524	2,524	2,524	2,905	2,905	2,905	2,905	2,904	26,670	38,100
Article 21 water	0	0	28	161	0	0	0	0	0	0	0	0	189	
Pool A water	0	0	0	0	0	0	271	0	0	0	0	0	271	
Pool B water	0	0	0	0	0	0	510	0	0	0	0	0	510	
Agency Total	0	0	2,315	2,448	2,524	2,524	3,305	2,905	2,905	2,905	2,905	2,904	27,640	
Littlerock Creek Irrigation District														
Approved Table A water	0	0	0	0	0	0	0	0	0	0	0	0	0	2,300
AVEK's approved Table A water delivered through Littlerock	0	0	0	0	0	22	146	165	91	51	22	0	497	
Agency Total	0	0	0	0	0	22	146	165	91	51	22	0	497	
Metropolitan Water District of Southern California														
Approved Table A water	393	94,519	97,874	98,098	114,098	113,477	132,193	113,000	123,811	129,632	107,845	65,408	1,190,348	2,011,500
Approved Table A water to EWA ^a	0	0	0	0	0	0	7,000	6,815	0	0	0	0	13,815	
Article 21 water	0	0	187	3,487	0	0	0	0	0	0	0	0	3,674	
Article 56(c) extended carryover	97,940	0	0	0	0	0	0	0	0	0	0	0	97,940	
EWA water received (2:1)	0	0	6,347	21,283	0	0	0	0	0	0	0	0	27,630	
Flexible storage replacement with Article 21 water (Castaic Lake) ^a	0	0	1,190	4,760	0	0	0	0	0	0	0	0	5,950	
Flexible storage replacement with Table A water (Lake Perris) ^a	0	0	0	0	1,336	1,336	1,336	0	0	3,342	3,342	3,342	10,692	
Flexible storage replacement with Table A water (Castaic Lake) ^a	0	0	0	0	7,294	7,294	7,294	0	0	16,468	10,000	10,000	58,350	
Pool A water	0	0	0	0	0	0	0	14,335	0	0	0	0	14,335	
Transfer approved water from San Bernardino	0	0	0	0	5,000	0	0	0	0	0	0	30,000	35,000	
Agency Total	98,333	94,519	104,408	122,868	119,098	113,477	132,193	127,335	123,811	129,632	107,845	95,408	1,368,927	
Mojave Water Agency														
Approved Table A water	320	145	143	139	360	173	96	350	361	430	251	208	2,976	75,800
Mojave's approved Table A water delivered through AVEK ^a	56	61	92	95	128	205	156	202	155	105	77	38	1,370	
Pool A water sale ^a	19,110	0	0	0	0	0	0	0	0	0	0	0	19,110	
Pool B water sale ^a	11,379	0	0	0	0	0	0	0	0	0	0	0	11,379	
Agency Total	320	145	143	139	360	173	96	350	361	430	251	208	2,976	
Palmdale Water District														
Approved Table A water	569	646	904	1,443	1,873	2,006	0	0	0	0	9	909	8,359	21,300
Dry Year Water Purchase	0	0	0	0	0	0	2,082	2,446	2,317	1,631	1,224	0	9,700	
Pool A water	0	0	0	71	81	0	0	0	0	0	0	0	152	
Pool B water	0	0	0	0	0	0	285	0	0	0	0	0	285	
Agency Total	569	646	904	1,514	1,954	2,006	2,367	2,446	2,317	1,631	1,233	909	18,496	
San Bernardino Valley Municipal Water District														
Approved Table A water	0	0	0	1,107	1,614	2,786	2,954	3,338	7,099	7,466	5,359	1,545	33,268	102,600
Carryover special (2001)	1,895	880	1,026	0	0	0	0	0	0	0	0	0	3,801	
Table A transfer to Metropolitan ^a	0	0	0	0	5,000	0	0	0	0	0	0	30,000	35,000	
Agency Total	1,895	880	1,026	1,107	1,614	2,786	2,954	3,338	7,099	7,466	5,359	1,545	37,069	
San Gabriel Valley Municipal Water District														
Approved Table A water	0	56	0	704	3,015	2,555	2,318	2,486	2,398	2,497	614	1,710	18,353	28,800
Carryover special (2001)	3,278	1,420	0	0	0	0	0	0	0	0	0	0	4,698	
Exchange approved Table A water from Dudley Ridge	0	0	0	0	0	0	0	0	0	1,800	0	0	1,800	
Agency Total	3,278	1,476	0	704	3,015	2,555	2,318	2,486	2,398	4,297	614	1,710	24,851	
San Geronio Pass Water Agency														
Pool A water sale ^a	300	0	0	0	0	0	0	0	0	0	0	0	300	4,000
Pool B water sale ^a	1,200	0	0	0	0	0	0	0	0	0	0	0	1,200	
Agency Total	0	0	0	0	0	0	0	0	0	0	0	0	0	

^aExcluded water

Table 9-4. Water Delivered in 2002, by Month (Acre-feet)

Contracting Agency and Type of Service	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2002 Total Deliveries	2002 Contract Table A
Ventura County Flood Control District														
Approved Table A water	154	154	154	154	154	154	303	772	1,202	1,418	223	156	4,998	20,000
Pool A water sale ^a	6,750	0	0	0	0	0	0	0	0	0	0	0	6,750	
Pool B water sale ^a	2,252	0	0	0	0	0	0	0	0	0	0	0	2,252	
Agency Total	154	154	154	154	154	154	303	772	1,202	1,418	223	156	4,998	
Recreation/Fish and Wildlife														
Castaic Lake	15	3	19	32	35	45	45	31	30	25	9	16	305	
Castaic Lake to Lagoon	0	0	0	0	582	410	501	291	0	0	397	0	2,181	
Silverwood Lake	2	1	2	5	8	9	12	12	11	9	4	2	77	
Lake Perris	23	23	25	34	41	40	50	52	47	35	23	20	413	
Agency Total	40	27	46	71	666	504	608	386	88	69	433	38	2,976	
Recreation/Fish and Wildlife														
USFWS recreation/fish and wildlife water (Pyramid Lake)	1	1	1	2	2	2	3	2	2	1	1	0	18	
SWP	109,704	102,498	110,301	116,425	140,324	137,978	158,483	153,178	151,703	156,989	125,113	108,867	1,571,563	
Non-SWP	1	1	6,348	21,285	2	2	2,085	2,448	2,319	1,632	1,225	0	37,348	
Southern California Area Total	109,705	102,499	116,649	137,710	140,326	137,980	160,568	155,626	154,022	158,621	126,338	108,867	1,608,911	2,557,200
SWP Water														
SWP Approved Table A water														
Agricultural and M&I approved Table A water	11,994	129,660	161,816	151,503	207,878	342,938	334,032	270,807	229,851	220,447	143,906	96,630	2,301,462	
Agricultural and M&I approved Table A water for EWA ^a	0	0	0	0	0	100	9,887	42,419	15,000	0	13,224	0	80,630	
Article 21 water	532	46	9,709	25,056	1,796	0	0	0	0	0	0	0	37,139	
Article 56(c) extended carryover	110,529	11,587	545	776	290	660	714	316	59	0	0	0	125,476	
Carryover special (2001)	21,793	9,595	3,307	0	0	0	0	0	0	0	0	0	34,695	
Flexible storage replacement with Article 21 water (Castaic Lake) ^a	0	0	1,190	4,760	0	0	0	0	0	0	0	0	5,950	
Flexible storage replacement (Lake Perris) ^a	0	0	0	0	1,336	1,336	1,336	0	0	0	3,342	3,342	10,692	
Flexible storage replacement (Castaic Lake) ^a	0	0	0	0	7,294	7,294	7,294	0	0	16,468	10,000	10,000	58,350	
Flexible storage withdrawal (Castaic Lake)	0	0	0	0	0	0	0	0	0	0	0	0	395	
Unscheduled water	0	0	0	26	0	0	0	0	0	0	0	0	26	
Transfer approved water	0	0	0	0	5,000	0	801	8,332	0	0	0	30,000	44,133	
Exchange approved water	0	0	0	0	5,250	5,250	0	0	7,517	2,195	1,800	0	22,012	
Exchange approved water for banked water ^a	0	0	0	1,389	0	0	0	0	0	0	0	0	1,389	
Pool A water	0	0	0	71	814	1,651	8,875	14,749	0	0	0	0	26,160	
Pool B water	0	0	0	0	768	2,972	14,105	1,247	0	0	0	0	19,092	
Pool A water sale ^a	26,160	0	0	0	0	0	0	0	0	0	0	0	26,160	
Pool B water sale ^a	19,092	0	0	0	0	0	0	0	0	0	0	0	19,092	
Pump-in recoveries	0	0	0	13,734	12,549	571	0	0	0	0	5,645	4,300	36,799	
Water Bank water recoveries	0	0	0	1,389	0	0	0	0	0	0	0	0	1,389	
Total	144,848	150,888	175,377	192,555	234,345	354,042	358,527	295,451	237,427	222,642	151,351	131,325	2,648,778	
SWP Table A-related water														
Recreation/fish and wildlife water	88	63	102	111	719	580	714	461	163	147	472	74	3,694	
Subtotal (SWP water)	144,936	150,951	175,479	192,666	235,064	354,622	359,241	295,912	237,590	222,789	151,823	131,399	2,652,472	
Non-SWP Water														
Other water														
Dry Year Purchase Program	0	0	0	0	3,580	1,800	2,282	4,285	2,317	1,631	1,224	0	17,119	
Conveyance of nonproject water to O'Neill Forebay	0	0	0	0	0	0	0	0	56,095	0	0	0	56,095	
EWA water received (2:1)	0	0	8,654	31,357	0	0	0	0	0	0	0	0	40,011	
Local	28,162	665	1,125	67,930	175,741	189,026	200,159	149,067	62,364	98,440	96,833	72,110	1,141,622	
Vallejo permit water	0	0	0	263	467	977	907	792	1,074	1,782	1,281	552	8,095	
Subtotal	28,162	665	9,779	99,550	179,788	191,803	203,348	154,144	121,850	101,853	99,338	72,662	1,262,942	
CVP Water														
Conveying water to CVP contractor	0	395	0	6,148	0	0	8,317	0	3,058	4,143	0	0	22,061	
Conveying CVP water annual contract	80	45	62	74	74	78	86	82	96	120	65	6	868	
Conveying CVP water (Kern National Wildlife Refuge-the Bureau)	808	690	0	0	89	280	60	1,096	3,865	1,613	4,656	1,569	14,726	
Conveying CVP water recreation/fish and wildlife water (San Luis/Pyramid)	86	33	39	32	32	48	62	45	43	54	32	27	533	
Delivery of CVP water from CVP/CVC to SWP contractor	0	7,400	0	3,456	0	0	0	36,082	8,932	529	0	0	56,399	
Transfer of CVP water to SWP contractor	0	1,932	0	0	0	0	0	1,000	1,000	0	0	0	3,932	
Transfer of CVP/CVC water to CVP contractor	0	0	0	0	0	0	13,151	18,045	1,100	4,229	2,634	897	40,056	
Transfer of CVC water to CVP contractor at San Luis Reservoir ^a	0	0	0	0	0	0	0	1,418	514	0	0	0	1,932	
Subtotal (CVP water)	974	10,495	101	9,710	195	406	21,676	56,350	18,094	10,688	7,387	2,499	138,575	
Total (Non-SWP water)	29,136	11,160	9,880	109,260	179,983	192,209	225,024	210,494	139,944	112,541	106,725	75,161	1,401,517	
Grand Total	174,072	162,111	185,359	301,926	415,047	546,831	584,265	506,406	377,534	335,330	258,548	206,560	4,053,989	4,125,031

^aExcluded water

Table 9-5. Total Amounts of Annual Table A Water and Water Conveyed, by Type, 1962-02 (Acre-feet)

Year	Annual Table A Water According to Long-Term Water Supply Contract							Water Conveyed								Total (16)	
	Upper Feather River Area (1)	North Bay Area (2)	South Bay Area (3)	San Joaquin Valley Area (4)	Central Coastal Area (5)	Southern California Area (6)	Total (7)	Deliveries						Initial Fill Water (14)	Operational Losses and Storage Changes ^d (15)		
								Annual Table A Water (8)	Article 21 Surplus and Unscheduled Water ^a (9)	Other Water ^b (10)	Feather River Diversions ^c (11)	Wildlife/ Recreation Water (12)	Subtotal (13)				
1962	0	0	0	0	0	0	0	0	0	18,289	0	0	18,289	9	272	18,570	
1963	0	0	0	0	0	0	0	0	0	22,456	0	0	22,456	71	185	22,712	
1964	0	0	0	0	0	0	0	0	0	32,507	0	0	32,507	171	152	32,830	
1965	0	0	0	0	0	0	0	0	0	44,105	0	0	44,105	93	729	44,927	
1966	0	0	0	0	0	0	0	0	0	67,928	0	0	67,928	0	1,746	69,674	
1967	0	0	11,538	0	0	0	11,538	11,538	0	53,605	0	0	65,143	8,328	4,212	77,683	
1968	550	0	109,900	77,350	0	3,700	191,500	171,709	121,534	14,777	866,926	0	1,174,946	498,926	117,906	1,791,778	
1969	620	0	98,700	163,075	0	5,000	267,395	193,020	72,397	18,829	794,374	0	1,078,620	510,614	72,196	1,661,430	
1970	700	0	114,200	202,000	0	5,700	322,600	233,993	133,024	38,080	759,759	0	1,164,856	23,947	2,435	1,191,238	
1971	890	0	116,200	251,800	0	6,700	375,590	357,340	296,019	44,119	778,362	8	1,475,848	7,853	5,812	1,489,513	
1972	970	0	118,300	413,066	0	209,423	741,759	611,801	423,964	66,638	817,398	6,489	1,926,290	100,274	53,062	2,079,626	
1973	1,100	0	120,400	383,652	0	481,100	986,252	694,388	296,416	42,511	800,743	1,155	1,835,213	204,638	53,798	2,093,649	
1974	1,230	0	122,400	460,650	0	597,920	1,182,200	874,077	417,676	46,224	911,613	2,118	2,251,708	237,554	10,657	2,499,919	
1975	1,610	0	124,500	545,809	0	714,950	1,386,869	1,223,990	622,902	63,793	862,218	3,377	2,776,280	103,352	(94,606)	2,785,026	
1976	1,990	0	126,500	543,417	0	836,480	1,508,387	1,373,002	580,110	115,217	946,440	1,745	3,016,514	61,122	(681,025)	2,396,611	
1977	2,420	0	128,600	581,400	0	954,901	1,667,321	574,155	0	389,065	581,994	1,111	1,546,325	0	(131,151)	1,415,174	
1978	1,850	0	130,700	635,900	0	1,049,584	1,818,034	1,452,699	16,914	121,225	786,517	1,691	2,379,046	64,443	717,370	3,160,859	
1979	2,130	0	132,700	702,685	0	1,190,573	2,028,088	1,659,896	648,389	187,630	882,549	1,766	3,380,230	12,302	(83,430)	3,309,102	
1980	1,810	500	134,800	758,100	1,946	1,317,614	2,214,770	1,529,749	404,557	46,459	875,045	2,131	2,857,941	0	(26,606)	2,831,335	
1981	1,940	650	137,000	818,000	2,813	1,432,065	2,392,468	1,909,562	908,428	279,161	838,557	4,688	3,940,396	0	(802,263)	3,138,133	
1982	1,970	800	139,200	876,500	5,626	1,550,449	2,574,545	1,750,024	215,873	154,882	776,330	4,646	2,901,755	0	480,752	3,382,507	
1983	2,000	950	141,400	867,118	8,439	1,681,257	2,701,164	1,184,869	13,019	181,453	602,905	7,849	1,990,095	0	(90,997)	1,899,098	
1984	3,630	1,100	143,600	979,211	12,698	1,744,098	2,884,337	1,588,619	262,917	381,024	832,332	7,040	3,071,932	0	(140,182)	2,931,750	
1985	3,760	1,250	145,800	1,019,049	21,138	1,864,849	3,055,846	1,995,453	307,672	404,842	870,008	4,033	3,582,008	0	92,885	3,674,893	
1986	4,190	1,400	148,100	1,091,946	28,210	1,983,890	3,257,736	1,995,636	36,620	193,606	791,737	3,865	3,021,464	0	284,380	3,305,844	
1987	4,620	1,550	150,300	1,188,500	35,204	2,103,941	3,484,115	2,130,086	114,907	377,592	831,947	7,672	3,462,204	0	(390,413)	3,071,791	
1988	5,060	15,471	152,500	1,246,100	43,722	2,225,482	3,688,335	2,385,122	0	507,076	794,834	4,889	3,691,921	0	(92,850)	3,599,071	
1989	5,500	24,615	156,700	1,290,400	56,342	2,424,633	3,958,190	2,853,747	0	474,559	830,500	8,135	4,166,941	0	447,917	4,614,858	
1990	6,040	28,190	160,900	1,313,450	70,486	2,500,600	4,079,666	2,582,151	90	424,697	875,099	9,262	3,891,299	0	(528,869)	3,362,430	
1991	11,880	29,590	166,400	1,338,011	70,486	2,510,200	4,126,567	549,113	3,521	551,051	565,395	4,879	1,673,959	0	167,435	1,841,394	
1992	11,920	32,010	171,900	1,342,300	70,486	2,510,200	4,138,816	1,471,454	1,156	144,789	613,978	2,605	2,233,982	0	(63,541)	2,170,441	
1993	11,960	34,620	177,400	1,342,300	70,486	2,510,200	4,146,966	2,315,235	0	254,854	822,589	2,609	3,395,287	0	726,123	4,121,410	
1994	12,000	37,215	182,000	1,342,300	70,486	2,510,200	4,154,201	1,749,351	112,625	236,739	874,018	8,200	2,980,933	0	(295,405)	2,685,528	
1995	12,050	44,030	184,000	1,342,300	70,486	2,510,200	4,163,066	1,967,093	64,330	78,425	860,077	2,575	2,972,500	0	69,536	3,042,036	
1996	12,100	48,225	186,000	1,301,630	70,486	2,492,900	4,111,341	2,514,825	28,647	251,391	934,997	3,907	3,733,767	86	491,550	4,225,403	
1997	12,150	49,315	188,000	1,297,300	45,201	2,492,900	4,084,866	2,325,775	21,432	322,000	993,211	4,146	3,666,564	527	(11,806)	3,655,285	
1998	12,200	50,420	188,000	1,272,300	45,201	2,517,900	4,086,021	1,725,519	20,288	134,682	872,738	2,108	2,755,335	0	(132,491)	2,622,844	
1999	12,250	51,500	188,000	1,272,300	70,486	2,519,900	4,114,436	2,738,891	158,070	85,312	1,108,672	4,324	4,095,269	0	(189,525)	3,905,744	
2000	14,000	55,945	210,000	1,205,300	70,486	2,565,900	4,121,631	3,200,677	308,785	322,655	1,085,886	4,030	4,932,032	0	(20,103)	4,911,929	
2001	14,670	66,561	220,000	1,185,519	70,486	2,566,900	4,124,136	1,690,926	43,435	477,835	1,078,656	2,929	3,293,781	0	159,983	3,453,764	
2002	14,730	67,396	220,000	1,195,219	70,486	2,557,200	4,125,031	2,573,030	37,165	307,162	1,132,938	3,694	4,053,989	0	80,709	4,129,673	
Total	208,490	643,303	5,346,638	31,845,957	1,081,886	57,149,509	96,275,783	56,158,515	6,692,882	7,989,243	29,651,342	129,676	100,621,658	1,834,310	266,539	102,717,482	

^a Values include amounts of deliveries to short-term contractors (Mustang Water District, 1970-72; Tracy Golf and Country Club, 1974, 1979, and 1980; Green Valley Water District, 1974, 1975, 1978, 1979, 1980, and 1985; Granite Construction Company, 1980).

^b Includes amounts of SWP non-Table A water and non-SWP water conveyed for SWP and non-SWP water contractors.

^c Includes amounts of water diverted under various water rights agreements.

^d Amounts reflect net effect of (1) operational losses from SWP transportation facilities; (2) changes in reservoir storage south of Delta; (3) storable local inflows to SWP reservoirs; (4) side inflow to San Luis Canal; and (5) inflow into California Aqueduct from Kern River Intertie.

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 2002, nonproject water deliveries totaled 117,121 acre-feet.

Total Deliveries. Column 15 shows total amounts of water delivered to long-term contractors. In 2002, the SWP delivered 2,783,018 acre-feet to 26 long-term contractors. This amount included 2,573,030 acre-feet of approved Table A water, 37,165 acre-feet of Article 21 and unscheduled water, and 117,121 acre-feet of nonproject water.

Water Delivered in 2002 by Month

During 2002, the SWP provided water service to 51 agencies, including 26 long-term water contractors. Those agencies and the amounts of water delivered to them by month are listed in Table 9-4.

This section and the accompanying table summarize water deliveries for 2002. Information about those deliveries is categorized as SWP water and nonproject water.

SWP Water

SWP water delivered in 2002 is categorized as follows:

Long-term water supply contracts

Article 21

carryover approved Table A water

current year approved Table A amounts

flexible storage

transfer and exchange of approved Table A water

turnback pools A and B

Related water

operational flood release

recreation and fish and wildlife

In 2002, SWP water was delivered in the following classifications and amounts.

Approved Table A Water. A total of 2,412,859 acre-feet of 2002 approved Table A water was delivered to 26 long-term contractors. Also, 160,171 acre-feet of carryover water, and 395 acre-feet of flexible storage withdrawal water were delivered in 2002.

Exchanges and Transfers of Approved Table A Water. During 2002, a total of 66,145 acre-feet of approved Table A water was exchanged or transferred to SWP long-term contractors and non-SWP water agencies as follows:

- Santa Barbara transferred 745 acre-feet to Dudley Ridge;
- Kern transferred 6,133 acre-feet to Dudley Ridge;
- Tulare Lake transferred 3,000 acre-feet of water to Westlands and exchanged 12,067 acre-feet with Westlands;
- Del Puerto Water District received 6,500 acre-feet of exchange water from Kern, and San Luis Water District received 900 acre-feet of exchange water from Kern;
- San Bernardino transferred 35,000 acre-feet to Metropolitan; and
- San Gabriel received 1,800 acre-feet of exchange water from Dudley Ridge.

2001 Carryover Approved Table A Water. In 2002, 160,171 acre-feet of 2001 approved Table A water were delivered that had been stored in SWP storage facilities in 2001.

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 2002, 14 contractors participated in the program. A total of 37,165 acre-feet of Article 21 water was delivered, including 37,139 acre-feet delivered to Napa, Solano, Alameda-Zone 7, Alameda County, Dudley Ridge, Santa Clara, Kern, Tulare, Oak Flat, Santa Barbara, Castaic Lake, Coachella, Desert, and Metropolitan. Empire took delivery of 26 acre-feet of unscheduled water.

Water for Recreation and Fish and Wildlife.

A total of 3,694 acre-feet of SWP water was conveyed for recreational use and enhancement of fish and wildlife.

Recreational Use. The SWP delivered 726 acre-feet of water for facilities at Lake Oroville, Lake Del Valle, O'Neill Forebay, Silverwood Lake, and Lake Perris. In addition, 2,486 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 482 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.

Operational Flood Release Water

There was no operational flood water released in 2002.

Non-SWP Water

In 2002, 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 2002, 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 2002, 1,141,622 acre-feet of water in this category were delivered to the Feather River and South Bay.

Feather River Area. Ten nonproject agencies in the Feather River area received 1,132,938 acre-feet. Those agencies are

- Last Chance Creek Water District, 9,903 acre-feet
- Thermalito Irrigation District, 2,389 acre-feet
- Oroville-Wyandotte Irrigation District, 5,812 acre-feet
- Western Canal Water District, 299,212 acre-feet
- Joint Water Districts Board, 787,150 acre-feet
- Oswald Water District, 287 acre-feet
- Tudor Mutual Water Company, 3,514 acre-feet
- Garden Highway Mutual Water Company, 15,658 acre-feet
- Plumas Mutual Water Company, 7,955 acre-feet
- Dana Brothers, 1,058 acre-feet

South Bay Area. In the South Bay area, 8,684 acre-feet of local water were delivered to Alameda-Zone 7 and Alameda County. These two South Bay Aqueduct contractors hold water rights to runoff from Lake Del Valle watershed.

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 9-5. The following discussion of conveyed Table A water is arranged according to column numbers.

Annual Table A. Columns 1 through 7 of Table 9-4 show the amount of long-term contractor's annual Table A water by area for years 1962 through 2002 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 2002.

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 2002.

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

In 2002, a total of 307,162 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 2002, a total of 1,132,938 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 2002, a total of 3,694 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.

Information for this chapter was contributed by the State Water Project Analysis Office.