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Chapter 9

Water Contracts and Deliveries



East Branch Aqueduct with mountains
in the background

Significant Events

- On October 1, 1998, SWP long-term contractors submitted initial requests for 1999 entitlement deliveries totaling 3.42 million acre-feet. The Department approved deliveries of 2.24 million acre-feet on November 24, 1998, resulting in an initial entitlement allocation for 1999 of 55 percent. Improved water conditions increased the 1999 allocation of entitlement water to 2.44 million acre-feet or 60 percent on February 10, 1999. As a result of additional improvements in water conditions and a reduction in SWP contractor requests to 3.19 million acre-feet, allocations were further increased to 100 percent on March 10, 1999, and remained at that level for the rest of 1999.
- In 1999, 4,095,269 acre-feet of water were conveyed to 27 long-term contractors and 17 other agencies. That amount includes 2,738,891 acre-feet of entitlement water; 158,070 acre-feet of Article 21 water, and 4,324 acre-feet of entitlement-related water for recreation and fish and wildlife.
- The Department executed an amendment to the water supply contract between the County of Butte and the Department to increase Butte's Table A annual entitlements to 2,890 acre-feet for 1999. In 2000, Butte's Table A annual entitlements will remain at 2,890 acre-feet and, in 2001, will increase to the maximum of 27,500 acre-feet.
- The Department executed a Monterey Amendment with Ventura County Flood Control District as Amendment Number 12 to VCFCD's Water Supply Contract. Plumas County Flood Control and Water Conservation District and Empire West Side Irrigation District remain the only long-term State Water Project contractors that have not signed the Monterey Amendment.
- The Department executed two separate amendments to the water supply contracts of Kern County Water Agency and Alameda County Flood Control and Water Conservation District-Zone 7, providing for the permanent transfer of 7,000 acre-feet and 15,000 acre-feet of KCWA's SWP entitlement to ACFCWCD-Zone 7. The transfer is consistent with implementation of the Monterey Amendment, which provides for the permanent transfer of up to 130,000 acre-feet of agricultural entitlement to urban agencies.
- The Department executed amendments to the water supply contracts of KCWA and Castaic Lake Water Agency that provide for the permanent transfer of 41,000 acre-feet of KCWA's SWP entitlement to CLWA. The transfer is consistent with implementation of the Monterey Amendment.
- The Department executed amendments to the water supply contracts of KCWA and Palmdale Water District that provide for the permanent transfer of 4,000 acre-feet of KCWA's SWP entitlement to PWD. The transfer is consistent with implementation of the Monterey Amendment.

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 long-term water supply contracts, which are amended as needed. The contracts, among other things, specify amounts of water that the Department may deliver to SWP contractors every year. During 1999, the Department executed 10 amendments to these contracts.

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, approve turnout construction along SWP facilities, and establish turnout operation and maintenance regulations. During 1999, the Department executed 16 water conveyance/storage agreements, and 3 turnout agreements with SWP contractors.

Detailed information about contracts and amendments follows.

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 MWD according to terms of the contracting principles for water service contracts announced by Governor Edmund G. Brown on January 20, 1960.

The MWD 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 water entitlement was transferred to MWD 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 water entitlements, 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 entitlement). That amount was designed to increase gradually until the maximum amount of annual entitlement was reached. The total combined maximum annual entitlement 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 entitlement 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.

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:

- revision of Table A, “Annual Entitlements,” of water supply contracts;
- allocation of costs and benefits for the enlargement or extension of the East Branch and extension of the Coastal Branch of the California Aqueduct;
- purchase of excess capacity in the California Aqueduct;
- provisions to allow contractors, during certain conditions, to carry over undelivered entitlement water from one year for delivery in the next year; and
- implementation of Monterey Agreement principles.

Table 9-1 lists the categories of amendments by contractors.

The following long-term contracts were amended during 1999.

Alameda County Flood Control and Water Conservation District-Zone 7. The Department executed Amendment Number 19 to the Water Supply Contract between ACFCWCD-Zone 7 and the Department on December 21, 1999. The Amendment provided for the permanent transfer of 7,000 acre-feet of SWP agricultural entitlement by ACFCWCD-Zone 7 from KCWA and set forth conditions for the transfer. The transfer is consistent with implementation of the Monterey Amendment, which provides for the permanent transfer of up to 130,000 acre-feet of agricultural entitlement to urban agencies.

Alameda County Flood Control and Water Conservation District-Zone 7. The Department executed Amendment Number 20 to the Water Supply Contract between ACFCWCD-Zone 7 and the Department on December 29, 1999. The Amendment provided for the permanent transfer of 15,000 acre-feet of SWP agricultural entitlement by ACFCWCD-Zone 7 from

KCWA and set forth conditions for the transfer. The transfer is consistent with implementation of the Monterey Amendment, which provides for the permanent transfer of up to 130,000 acre-feet of agricultural entitlement to urban agencies.

County of Butte. The Department executed Amendment Number 14 to the Water Supply Contract between Butte and the Department on February 26, 1999. The Amendment provided for increasing Butte’s Table A annual entitlements to 2,890 acre-feet for 1999. In 2000, Butte’s Table A annual entitlements will remain at 2,890 acre-feet. In 2001, Butte’s Table A annual entitlements will be increased to the maximum of 27,500 acre-feet.

Castaic Lake Water Agency. The Department executed Amendment Number 18 to the Water Supply Contract between CLWA and the Department on March 31, 1999. The Amendment provided for the permanent transfer of 41,000 acre-feet of SWP agricultural entitlement by CLWA from KCWA, acting on behalf of Wheeler Ridge-Maricopa Water Storage District, and set forth conditions for the transfer. The transfer is consistent with implementation of the Monterey Amendment, which provides for the permanent transfer of up to 130,000 acre-feet of agricultural entitlement to urban agencies.

Kern County Water Agency. The Department executed Amendment Number 28 to the Water Supply Contract between KCWA and the Department on March 31, 1999. The Amendment provided for the permanent transfer of 41,000 acre-feet of SWP agricultural entitlement by KCWA, acting on behalf of WRMWSD, to CLWA and set forth conditions for the transfer. The transfer is consistent with implementation of the Monterey Amendment, which provides for the permanent transfer of up to 130,000 acre-feet of agricultural entitlement to urban agencies.

Kern County Water Agency. The Department executed Amendment Number 29 to the Water Supply Contract between KCWA and the Department on December 29, 1999. The Amendment provided for the permanent transfer of 4,000 acre-feet of SWP agricultural entitlement by KCWA, acting on behalf of Belridge Water Storage District, to Palmdale Water

Table 9-1
Amendments to Water Supply Contracts,
December 31, 1999, by Category and
Contracting Agency

State Water Project Amendment Category					
<i>Contracting Agency</i>	<i>Revision of Annual Entitlements</i>	<i>East Branch Extension or Enlargement and Coastal Branch Extension</i>	<i>Purchase of Excess Capacity</i>	<i>Provisions to Carry Over Entitlement Water</i>	<i>Monterey Agreement</i>
Upper Feather River Area					
City of Yuba City	✓				✓
County of Butte	✓			✓	✓
Plumas County Flood Control and Water Conservation District				✓	
North Bay Area					
Napa County Flood Control and Water Conservation District	✓			✓	✓
Solano County Water Agency	✓		✓	✓	✓
South Bay Area					
Alameda County Flood Control and Water Conservation District-Zone 7	✓			✓	✓
Alameda County Water District				✓	✓
Santa Clara Valley Water District	✓			✓	✓
San Joaquin Valley Area					
County of Kings				✓	✓
Dudley Ridge Water District	✓			✓	✓
Empire West Side Irrigation District	✓			✓	
Kern County Water Agency	✓				✓
Oak Flat Water District	✓			✓	✓
Tulare Lake Basin Water Storage District	✓			✓	✓
Central Coastal Area					
San Luis Obispo County Flood Control and Water Conservation District	✓			✓	✓
Santa Barbara County Flood Control and Water Conservation District	✓	✓		✓	✓
Southern California Area	✓				
Antelope Valley-East Kern Water Agency	✓	✓	✓	✓	✓
Castaic Lake Water Agency	✓			✓	✓
Coachella Valley Water District	✓	✓		✓	✓
Crestline-Lake Arrowhead Water Agency	✓			✓	✓
Desert Water Agency	✓	✓		✓	✓
Little Rock Creek Irrigation District	✓			✓	✓
Metropolitan Water District of Southern California	✓	✓	✓	✓	✓
Mojave Water Agency	✓	✓		✓	✓
Palmdale Water District	✓	✓		✓	✓
San Bernardino Valley Municipal Water District	✓	✓		✓	✓
San Gabriel Valley Municipal Water District	✓		✓	✓	✓
San Geronio Pass Water Agency	✓	✓		✓	✓
Ventura County Flood Control District				✓	✓

District and set forth conditions for the transfer. The transfer is consistent with implementation of the Monterey Amendment, which provides for the permanent transfer of up to 130,000 acre-feet of agricultural entitlement to urban agencies.

Kern County Water Agency. The Department executed Amendment Number 30 to the Water Supply Contract between KCWA and the Department on December 21, 1999. The Amendment provided for the permanent transfer of 7,000 acre-feet of SWP agricultural entitlement by KCWA to ACFCWCD-Zone 7 and set forth conditions for the transfer. The transfer is consistent with implementation of the Monterey Amendment, which provides for the permanent transfer of up to 130,000 acre-feet of agricultural entitlement to urban agencies.

Kern County Water Agency. The Department executed Amendment Number 31 to the Water Supply Contract between KCWA and the Department on December 29, 1999. The Amendment provided for the permanent transfer of 15,000 acre-feet of SWP agricultural entitlement by KCWA to ACFCWCD-Zone 7 and set forth conditions for the transfer. The transfer is consistent with implementation of the Monterey Amendment, which provides for the permanent transfer of up to 130,000 acre-feet of agricultural entitlement to urban agencies.

Palmdale Water District. The Department executed Amendment Number 16 to the Water Supply Contract between PWD and the Department on December 29, 1999. The Amendment provided for the permanent transfer of 4,000 acre-feet of SWP agricultural entitlement by PWD from KCWA, acting on behalf of BWSO, and set forth conditions for the transfer. The transfer is consistent with implementation of the Monterey Amendment, which provides for the permanent transfer of up to 130,000 acre-feet of agricultural entitlement to urban agencies.

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 water allocations, transfer of entitlement 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.

On August 12, 1999, the Department executed one Monterey Amendment with Ventura County Flood Control District as Amendment Number 12 to VCFCO's Water Supply Contract. 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 the parties await the Court of Appeals decision. Additional information can be found in Chapter 6, *Legislation and Litigation*.

Miscellaneous Agreements with Long-Term SWP Contractors

Water Conveyance/Storage Agreements

During 1999, agreements were executed with long-term contractors as described below.

Alameda County Flood Control and Water Conservation District-Zone 7. The agreement, among ACFCWCD-Zone 7, KCWA, and the Department, provided for the delivery of a portion of ACFCWCD-Zone 7's 1999 entitlement water, Article 21 water, and other water supplies, to be stored in, and later recovered from, groundwater basins within KCWA, in accordance with the ACFCWCD-Zone 7 and Semitropic Water Storage District Banking Program Agreement. All return water is to be delivered to ACFCWCD-Zone 7 by December 31, 2035. This agreement, expected to be executed in March 2000, is in accordance with the provisions of the Monterey Amendment that encourage operational flexibility for the SWP, such as groundwater storage of SWP water outside a contractor's service area for later use within

the service area. During 1999, the Department delivered 20,000 acre-feet of ACFCWCD-Zone 7's 1999 SWP entitlement water and 2,910 acre-feet of Article 21 water for storage by SWSD.

Alameda County Water District. An agreement, executed March 3, 1999, among ACWD, KCWA, and the Department, provided for the delivery of a portion of ACWD's 1999 entitlement water, Article 21 water, and other water supplies, to be stored in, and later recovered from, groundwater basins within KCWA, in accordance with the ACWD and Semitropic Water Storage District Banking Program Agreement. All return water is to be delivered to ACWD by December 31, 2035. The Department, ACWD, and KCWA signed similar delivery agreements for 1996, 1997, and 1998. These agreements were in accordance with the provisions of the Monterey Amendment. During 1999, the Department delivered 13,720 acre-feet of ACWD's 1999 SWP entitlement water and 2,781 acre-feet of Article 21 water for storage by SWSD.

Dudley Ridge Water District. A letter agreement, dated July 24, 1999, and executed August 3, 1999, approved the delivery of up to 10,000 acre-feet of DRWD's 1999 Article 21 water and up to 10,000 acre-feet of DRWD's 1999 SWP entitlement water to the Kern Water Bank and the return of a like amount of water by December 31, 2009. The Department approved similar agreements in 1996, 1997, and 1998. During 1999, the actual amount of Article 21 water delivered to KWB was 1,321 acre-feet.

Dudley Ridge Water District. A letter agreement, among the Department, DRWD, and San Gabriel Valley Municipal Water District, approved the storage of up to 5,000 acre-feet of DRWD 1999 SWP entitlement water in SGVMWD. The return of the stored water will be accomplished through an exchange of SGVMWD's entitlement. In 1999, 3,500 acre-feet of DRWD's entitlement and 229 acre-feet of DRWD's Pool B purchase water were delivered to SGVMWD pursuant to this agreement. The letter agreement is expected to be executed in February 2000.

Empire West Side Irrigation District. A letter agreement executed April 6, 1999, between the

Department and EWSID allowed EWSID to take unscheduled water when the Delta is in excess conditions. EWSID took 176 acre-feet of unscheduled water in 1999.

Kern County Water Agency. A letter agreement dated July 20, 1999, and executed August 2, 1999, between the Department, KCWA, and Tulare Lake Basin Water Storage District approved the exchange of up to 9,000 acre-feet of KCWA's 1999 SWP entitlement to TLBWSD. The agreement facilitated transfers between KCWA, TLBWSD, the City of Fresno, and J. G. Boswell Company. The City of Fresno provided up to 9,000 acre-feet of its CVP water from the Friant-Kern Canal to KCWA prior to May 31, 1999; KCWA exchanged an equivalent amount of its 1999 SWP entitlement water to TLBWSD; TLBWSD delivered KCWA entitlement water to J. G. Boswell Company; and Boswell provided an equivalent amount of Kings River water to the City of Fresno. The actual amount exchanged was 9,000 acre-feet.

Kern County Water Agency. A letter agreement between the Department and KCWA approved the exchange of up to 12,500 acre-feet of KCWA 1999 SWP entitlement water for a like amount of CVP water to be acquired by Westlands Water District. SWP water will be delivered to WWD via Reach 7 of the California Aqueduct in Kings County for use within the SWP service area. In return, WWD will acquire a like amount of CVP (Friant Unit) water and deliver it to KCWA through its groundwater banking program by December 31, 1999. A total of 12,500 acre-feet was exchanged. The letter agreement is expected to be executed in January 2000.

Kern County Water Agency. A letter agreement dated April 9, 1999, between the Department and KCWA approved the transfer of up to 40,776 acre-feet of KCWA's 1999 SWP entitlement water to WWD. The agreement facilitated a water transfer from landholders within member units of the agency—Lost Hills Water District, Berrenda Mesa Water District, BWSD, and TLBWSD—to land they farmed in WWD. Similar transfers were approved by the Department in 1996, 1997, and 1998. The actual amount of water transferred from KCWA to WWD in 1999 was 40,776 acre-feet.

Kern County Water Agency. A letter agreement between the Department and KCWA approved the exchange of up to 11,000 acre-feet of KCWA's 1999 SWP entitlement water to WWD for a like amount of WWD's water delivered to KCWA. WWD acquired Kern River water from La Hacienda, Incorporated, and delivered it from Lake Isabella to KCWA's service area. In exchange, a like quantity of KCWA's 1999 SWP entitlement water was delivered to WWD's service area within Kings County. A total of 7,923 acre-feet was delivered to WWD in 1999 under this agreement. The letter agreement is expected to be executed in January 2000.

Kern County Water Agency. A letter agreement executed September 13, 1999, among KCWA, TLBWSD, and the Department, approved the transfer of up to 400 acre-feet of KCWA's 1999 SWP entitlement water to TLBWSD. The water was transferred from LHWD, a member unit of KCWA, to Westlake Farms located within the service area of TLBWSD. The transferred water was used to create wetland habitat for shore birds as required under a mitigation agreement between the Regional Water Quality Control Board and LHWD for the operation of LHWD's evaporation basin. A total of 400 acre-feet was transferred. Similar transfers were approved by the Department in 1996, 1997, and 1998.

Metropolitan Water District of Southern California. A letter agreement dated September 3, 1999, between MWD and the Department approved the delivery of up to 35,000 acre-feet of MWD's 1999 SWP entitlement water to WWD in exchange for an equivalent amount of eastside San Joaquin Valley water obtained by WWD. The eastside San Joaquin Valley water will be conveyed to the Arvin-Edison groundwater storage basin as part of the Arvin-Edison/Metropolitan Water Management Program. The letter agreement is expected to be executed in January 2000. During 1999, a total of 33,000 acre-feet was delivered to WWD pursuant to this agreement.

San Bernardino Valley Municipal Water District. A letter agreement executed March 29, 1999, between SBVMWD and the Department allowed SBVMWD to introduce and store up to 9,000 acre-feet of local water from the Santa Ana River and Mill

Creek in Devil Canyon afterbays during 1999. The local water could also be exchanged for water in San Luis Reservoir for later delivery to SBVMWD or rediverted through the San Gabriel pipeline to SBVMWD facilities served from the SBVMWD pipeline. No local water was introduced into SWP facilities under this agreement in 1999.

Santa Clara Valley Water District. An agreement, among SCVWD, KCWA, and the Department, provided for the delivery of a portion of SCVWD's 1999 SWP entitlement water, Article 21 water, and other water supplies, to be stored in and later recovered from groundwater basins within KCWA, in accordance with the Santa Clara and Semitropic Water Storage District Banking Program Agreement. The stored water is to be returned to SCVWD by 2035. This was in accordance with the provisions of the Monterey Agreement that encourage operational flexibility for the SWP, such as groundwater storage of SWP water outside a contractor's service area for later use within the service area. The Department approved similar agreements in 1996, 1997, and 1998. In 1999, a total of 14,520 acre-feet of entitlement water and 15,480 acre-feet of Article 21 water was delivered to SWSD pursuant to this agreement. The agreement is expected to be executed in March 2000.

Solano County Water Agency. A letter agreement, executed July 9, 1999, among the Department, SCWA, and Mojave Water Agency, approved the exchange of up to 3,000 acre-feet of SCWA's 1999 SWP entitlement water to MWA for the return of up to 1,500 acre-feet of MWA's future SWP entitlement water or other future water supply as mutually agreed to by MWA and SCWA and approved by the Department. The water is to be returned by December 31, 2009, during a dry year. A similar agreement was executed in 1997 and 1998. The full 3,000 acre-feet was delivered to MWA in 1999.

Tulare Lake Basin Water Storage District. A letter agreement, dated March 11, 1999, and executed March 29, 1999, between the Department and TLBWSD approved the transfer of up to 3,000 acre-feet of TLBWSD's 1999 SWP entitlement water to WWD. The agreement facilitated the water transfer from Hansen Ranches, a landowner in TLBWSD, to

lands farmed in WWD under the name of Vista Verde Farms, Incorporated. The actual amount transferred was 3,000 acre-feet. The Department approved similar transfers in 1996, 1997, and 1998.

Tulare Lake Basin Water Storage District. A letter agreement between the Department and TLBWSD approved the exchange of up to 13,770 acre-feet of 1999 SWP entitlement water from TLBWSD to WWD. WWD will return an equivalent quantity of local surface water to TLBWSD by December 31, 2009. TLBWSD's SWP water was delivered to land within WWD's service area in both Kings County and Fresno County. The amount of 1999 entitlement water delivered to WWD pursuant to this agreement was 13,770 acre-feet. The letter agreement is expected to be executed in February 2000.

During 1999, water was delivered pursuant to agreements with long-term contractors executed prior to 1999 as described below.

Alameda County Flood Control and Water Conservation District-Zone 7. An agreement dated July 28, 1995, among Byron-Bethany Irrigation District, ACFCWCD-Zone 7, and the Department provides for the transfer of up to 5,000 acre-feet of BBID's local water annually to ACFCWCD-Zone 7 through SWP facilities. BBID may only transfer real water that has been made available for transfer by conservation and fallowing. In 1999, 2,000 acre-feet of BBID's local water was pumped at Banks Pumping Plant and delivered to ACFCWCD-Zone 7's turnouts in the South Bay Aqueduct.

Antelope Valley-East Kern Water Agency. An agreement dated November 13, 1997, between AVEK, MWA, and the Department provided for a change in the delivery of up to 2,250 acre-feet of MWA's SWP entitlement water annually to AVEK's turnout. The agreement allowed for the delivery of MWA's SWP entitlement water to a solar energy generating station within its service area that was not located near any of its conveyance facilities. AVEK had delivery capability and agreed to provide service. During 1999, the Department delivered 1,439 acre-feet of Mojave's 1999 SWP entitlement water to AVEK's turnouts.

Dudley Ridge Water District. An agreement dated May 22, 1998, among DRWD, TLBWSD, and the Department provided for a change in the delivery of up to 1,000 acre-feet of DRWD's SWP entitlement water annually to TLBWSD's turnout. The agreement allowed for the delivery of DRWD's SWP entitlement water to landowners within its service area that were not located near any of its conveyance facilities. TLBWSD's conveyance facilities bifurcate DRWD's service area and have conveyance capability to deliver water to the subject landowner. During 1999, the Department delivered 86 acre-feet of DRWD's 1999 SWP entitlement water to TLBWSD's turnouts.

Kern County Water Agency. A letter agreement among the Department, KCWA, and TLBWSD, dated December 30, 1998, approved the delivery of KCWA's 1998 SWP entitlement water to TLBWSD and the exchange of up to 20,000 acre-feet of TLBWSD's 1999 SWP entitlement water with WWD. An exchange to facilitate the purchase of banked CVP Section 215 water and floodwater from the Friant-Kern Canal by Harris Ranch, a WWD landowner, was executed August 31, 1998. Up to 20,000 acre-feet of KCWA's entitlement water would be exchanged for the banked water. Due to lower than anticipated water demands, Harris Ranch delayed the delivery of exchange water and made arrangements with a water user in TLBWSD to take delivery of up to 20,000 acre-feet of KCWA's entitlement water by December 31, 1998. To complete the originally approved exchange, up to 20,000 acre-feet of TLBWSD's 1999 entitlement water would be delivered to WWD during March 1 to July 15, 1999, for Harris Ranch. The exchange was completed when 20,000 acre-feet of TLBWSD's water was delivered to WWD in 1999.

Metropolitan Water District of Southern California. A letter agreement dated April 13, 1999, approving a second amendment to the interim December 29, 1997, letter agreement among the Department, MWD, KCWA, and Arvin-Edison Water Storage District, extended the term of the letter agreement to June 30, 1999, and allowed the additional delivery of up to 50,000 acre-feet of MWD's 1999 SWP entitlement and Article 21 water to AEWS for storage. The 1997 letter agreement allowed for the delivery of up to 20,000 acre-feet of MWD's 1997

entitlement water to groundwater storage by February 28, 1998. The September 17, 1998, amendment extended the term through December 20, 1998, and allowed for an additional delivery of up to 62,205 acre-feet of 1998 entitlement water to groundwater storage. A total of 50,406 acre-feet of MWD's 1999 entitlement was delivered to AEWS D under this agreement. An additional 11,756 acre-feet of MWD's 1999 entitlement water was delivered to AEWS D from July through December 1999. The agreement for this additional water is pending.

Metropolitan Water District of Southern California. A letter agreement dated August 21, 1995, between the Department, MWD, and KCWA, approved the delivery of MWD's SWP entitlement and other water supplies for storage and later recovery to the Semitropic Water Storage District groundwater basin. This was in accordance with the provisions of the Monterey Agreement that encourage operational flexibility for the SWP, such as groundwater storage of SWP water outside a contractor's service area for later use within the service area. During 1999, the Department delivered 53,010 acre-feet of MWD's 1999 SWP entitlement and 22,840 acre-feet of Article 21 water for storage in SWSD.

Turnout Agreements

Kern County Water Agency and Arvin-Edison Water Storage District. An agreement dated January 26, 1999, among the Department, KCWA, and AEWS D, allowed the construction, operation, and maintenance of the Arvin-Edison Turnout, located at milepost 277.3, Reach 14C of the California Aqueduct. The turnout has a design capacity of 200 cfs.

Kern County Water Agency and Kern Water Bank Authority. An agreement dated November 12, 1999, among the Department, KCWA, and Kern Water Bank Authority, allowed the construction, operation, and maintenance of the 95th Street East Turnout, located at milepost 237.19, Reach 12E of the California Aqueduct. The turnout has a design capacity of 750 cfs.

Antelope Valley-East Kern Water Agency. On November 23, 1999, the Department approved the construction of the Rancho Vista Turnout for

AVEKWA located at milepost 339.68, Reach 20B on the East Branch of the California Aqueduct. The turnout has a design capacity of 5 cfs.

Agreements Related to the Monterey Amendments

Turnback Water Pool Program. Under Article 56(d) of the Monterey Amendments, the fourth year of the Turnback Water Pool Program was initiated through Notice to the State Water Project Contractors No. 99-01, dated January 22, 1999. 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 1999 entitlement for sale in a turnback pool for use outside their service area. Other contractors interested in purchasing this water could then request a portion or all of it. Based on supply and demand, the turnback water was allocated among the selling and purchasing contractors. In 1999, 237,904 acre-feet of water were purchased under the Turnback Water Pool Program.

Transactions for Pool A occurred in January and February 1999; transactions for Pool B occurred in March 1999. Turnback water sold for \$11.79 per acre-foot, 50 percent of the Delta Water Rate through Pool A, and for \$5.90 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 1999 Turnback Water Pool Program closed April 1, 1999.

The following contractors participated in Pool A of the Turnback Water Pool Program:

- County of Butte sold 934 acre-feet
- City of Yuba City sold 4,260 acre-feet
- SLOCFCWCD sold 11,331 acre-feet
- SBCFCWCD sold 4,587 acre-feet
- AVEKWA sold 8,122 acre-feet
- CLWA sold 4,000 acre-feet
- Crestline-Lake Arrowhead Water Agency sold 1,530 acre-feet
- Mojave Water Agency sold 5,000 acre-feet
- SBVMWD sold 41,560 acre-feet
- DRWD purchased 6,000 acre-feet
- KCWA purchased 24,060 acre-feet
- TLBWSD purchased 51,264 acre-feet

The following contractors participated in Pool B of the Turnback Water Pool Program:

- County of Butte sold 1,156 acre-feet
- City of Yuba City sold 3,840 acre-feet
- NCFCWCD sold 4,650 acre-feet
- SLOCFCWCD sold 9,730 acre-feet
- SBCFCWCD sold 9,484 acre-feet
- AVEKWA sold 55,360 acre-feet
- CLWA sold 18,200 acre-feet
- CLAWA sold 2,320 acre-feet
- SBVMWD sold 41,040 acre-feet
- SGVMWD sold 10,800 acre-feet
- DRWD purchased 2,000 acre-feet
- KCWA purchased 21,300 acre-feet
- TLBWSD purchased 85,900 acre-feet
- CVWD purchased 27,380 acre-feet
- DWA purchased 20,000 acre-feet

Other Administrative Action

Santa Barbara County Flood Control and Water Conservation District and Water Agency. A letter dated August 13, 1999, from the Department to SBCFCWCD approved the extension of the deadline for reacquisition of all or a portion of the 12,214 acre-feet of previously established relinquished SWP entitlement until July 1, 2000. The original deadline of March 12, 1998, previously established by the Department, had been extended several times. SBCFCWCD did not take delivery of any reacquired water in 1999.

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, 1999, and December 31, 1999.

Water Conveyance Agreements—CVP Water

The Department regularly enters into agreements to convey CVP water, such as agreements with contractors receiving water from USBR 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 USBR, including the U.S. Department of Veterans Affairs, U.S. Fish and Wildlife Service, and Musco Olive Products, Inc. Occasionally, the Department also enters into agreements with USBR to convey CVP or SWP water from the Delta to O'Neill Forebay through CVP or SWP facilities. Some of these agreements allow USBR 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. The CVC is used by eight CVP water contractors 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, Hill's 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 uninterrupted water conveyance service by the Department since 1975-76 through

- individual 3-party contracts with the Department and USBR, executed in 1975 and 1976 with individual amendments to those contracts, signed on December 28, 1995; and,
- 2-year interim renewal contracts for the term March 1, 1996, through February 28, 1998, and further renewed on March 1, 1998, through February 29, 2000.

Between January 1, 1999, and December 31, 1999, the Department executed agreements with CVC contractors as follows:

- On May 10, 1999, LTRID and PID requested the Department change the point of delivery for their full 1999 CVP entitlement water from the CVC turnout to turnouts in reaches 4 through 7 of the California Aqueduct for delivery to WWD. The Department and the two districts executed individual agreements on December 21, 1999, for Department conveyance

of up to 31,102 acre-feet of water for each district, of which 6,340 acre-feet for LTRID and 3,446 acre-feet for PID were delivered to WWD.

- On April 29, 1999, May 18, 1999, and August 5, 1999, Kern-Tulare Water District requested the Department change the point of delivery for up to 28,000 acre-feet of their 1999 CVP entitlement water from the CVC turnout to turnouts in reaches 4 through 7 of the California Aqueduct for delivery to WWD. The Department and the district executed an agreement on December 21, 1999, for Department conveyance of up to 28,000 acre-feet of water for the district, of which 5,955 acre-feet was delivered to WWD.
- On April 29, 1999, May 18, 1999, and August 5, 1999, Rag-Gulch Water District requested the Department change the point of delivery for up to 9,310 acre-feet of their 1999 CVP entitlement water from the CVC turnout to turnouts in reaches 4 through 7 of the California Aqueduct for delivery to WWD. The Department and the district executed an agreement on December 21, 1999, for Department conveyance of up to 9,310 acre-feet of water for the district, of which 3,634 acre-feet was delivered to WWD.

Friant Water Users Authority. An agreement dated September 24, 1999, between the Department and Friant Water Users Authority asked the Department to convey up to 25,000 acre-feet of CVP water from the San Luis Canal at Kettleman City to the CVC turnout at Tupman. The water was identified as “Exchange Water” in a July 6, 1999, letter agreement between the Friant Water Users Authority, various CVP Friant water service contractors, and USBR. This water was to be conveyed from July 1, 1999, through February 29, 2000. In 1999, a total of 12,804 acre-feet was delivered.

Musco Olive Products, Inc. An annual agreement dated September 16, 1999, between the Department and USBR provided for the conveyance of up to 400 acre-feet of CVP water to Reach 2A of the California Aqueduct for use by Musco Olive Products, Inc. This water was to be conveyed from January 1, 1999, through September 30, 1999. A total of 360 acre-feet was delivered.

Tracy Golf and Country Club. An agreement dated April 28, 1999, among the Department, USBR, and

Tracy Golf and Country Club, provided for the conveyance of up to 1,240 acre-feet of CVP water through SWP facilities to the Tracy Golf and Country Club. This water was to be conveyed from March 1, 1999, through February 29, 2000. A total of 204 acre-feet was delivered in 1999.

U.S. Department of Veterans Affairs. An annual agreement, dated February 24, 1999, and replaced July 27, 1999, between the Department and USBR approved the conveyance of up to 450 acre-feet of CVP water to Reach 2B of the California Aqueduct for use by the U.S. Department of Veterans Affairs at the San Joaquin Valley National Cemetery. The water was to be conveyed from January 1, 1999, through September 30, 1999. A total of 43 acre-feet was delivered.

U.S. Fish and Wildlife Service Cooperative Agreement. USBR 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, eight modifications to the agreement have been executed. Under Modification No. 001, dated October 31, 1994, additional funding was provided. Modifications were made each year to the agreement. Modification No. 007, executed August 17, 1999, extended the agreement through April 10, 2000, and defined the water delivery rates for 2000. Modification No. 008, dated November 29, 1999, obligated funding for that period. The Department conveyed 10,476 acre-feet for USBR to the Kern National Wildlife Refuge in 1999.

U.S. Bureau of Reclamation. A letter agreement dated August 18, 1999, between the Department and USBR had the Department exporting 16,281 acre-feet of CVP water from the Sacramento-San Joaquin Delta from February 24 through 27, 1999. The CVP water transported to O'Neill Forebay replaced exports foregone at the Tracy Pumping Plant in January due to fishery protection measures pursuant to

Anadromous Fish Restoration Program Action No. 8 implemented by USBR under provisions of CVPIA.

Other Agreements—Turnouts

In 1999, there were no new turnout agreements with any miscellaneous agencies.

Amendments to Miscellaneous Agreements with Other Agencies

An amendment, dated April 19, 1999, modified and clarified provisions of the existing contract between the Department and ECCID dated January 7, 1981, and the contract among the Department, ECCID, and CCWD, dated April 11, 1991, to allow the diversion of water under both contracts at the Contra Costa Canal intake and the Los Vaqueros Project intake and to increase the allowable rate of diversion at those locations. The Amendment also defined the allowable place of use and allowed the use of water outside ECCID boundaries only with the prior written consent of the Department. The Amendment is expected to be executed in February 2000.

Water Deliveries

Water Allocations

Each year, by October 1, the SWP long-term water contractors submit initial requests for water deliveries for the subsequent calendar year. Initial entitlement allocations 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, current reservoir storage, and total requests by the SWP water contractors. Forecasts for the year are updated as the hydrological conditions change. Allocations are increased or decreased depending on both actual and projected hydrologic conditions. Unless otherwise warranted, the final May 1 water supply forecast sets delivery allocations for the remainder of the year.

On October 1, 1998, SWP long-term contractors submitted initial requests for 1999 entitlement deliveries totaling 3.42 million acre-feet. The Department approved deliveries of 2.24 million acre-feet on November 24, 1998, resulting in an initial entitlement allocation for 1999 of 55 percent. Improved water conditions increased the 1999 allocation of

entitlement water to 2.44 million acre-feet or 60 percent on February 10, 1999. As a result of additional improvements in water conditions and a reduction in SWP contractor requests to 3.19 million acre-feet, allocations were further increased to 100 percent on March 10, 1999, and remained at that level for the rest of 1999.

SWP Deliveries

The SWP delivers water for a variety of beneficial uses. In addition to delivering entitlement 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 1999, 4,095,269 acre-feet of water were conveyed to 27 long-term contractors and 17 other agencies. That amount includes

- 2,738,891 acre-feet of entitlement water¹, (with 2,391,985 acre-feet delivered to long-term contractors' service areas, 130,969 acre-feet to WWD, and 215, 937 acre-feet delivered under the Turnback Water Pool Program);
- 158,070 acre-feet of Article 21 water; (see page 114 for more information.)
- 4,324 acre-feet of SWP water for recreation, fish and wildlife; and
- 1,193,984 acre-feet of water delivered to satisfy water rights settlement agreements and agreements made with SWP contractors and other agencies, including USBR.

Figure 9-1 shows amounts of water delivered to various locations during 1999.

¹ Annual entitlement water is the amount of SWP water long-term contractors may request each year in accordance with Article 12(a), "Procedure for Determining Water Delivery Schedule," of their water supply contract.

Specific information about water deliveries made to long-term contractors and other agencies during 1999 and historical deliveries from 1962 through 1999 are presented in the following three sections, each with a corresponding table:

- Water Delivered to Long-Term Water Supply Contractors in 1999, by Service Area (Table 9-2);
- Water Delivered in 1999, by Month (Table 9-3); and
- Total Amounts of Annual Water Entitlements and Water Conveyed, by Type, 1962-99 (Table 9-4).

Water Deliveries and Credits to Long-Term SWP Contractors

Table 9-2 shows amounts of water delivered in 1999 and future entitlement credits granted to long-term contractors through 1999. The following information about specific columns in Table 9-2 is arranged by column number.

1999 Entitlement Water Delivered. Columns 1 through 5 show a detailed breakdown of entitlement water delivered to long-term water supply contractors in 1999.

Turnback Pool Water. Column 4 shows 215,937 acre-feet of turnback pool water was delivered to long-term water supply contractors in 1999.

1998 Carryover Entitlement Water Delivered During 1999. In some instances, with the Department's approval, contractors may delay delivery of entitlement water to the next year (also known as carryover entitlement water). Column 6 shows no entitlement water was carried over from 1998 for delivery in 1999.

Article 12(d) Water. Column 7 shows no Article 12(d) water was delivered in 1999.

Article 14(b) Water. No 1998 entitlement water was delivered in 1999 under Article 14(b).

Total Entitlement Water Delivered. Column 9 shows all entitlement water delivered in 1999—a total of 2,738,891 acre-feet.

1999 Article 21 Water. Column 10 shows 158,070 acre-feet of 1999 Article 21 water delivered to long-term water supply contractors in 1999. Article 21 water is water in excess of that required to meet all demands for entitlement water and water to be stored in SWP reservoirs. Article 21 was amended most recently by the Monterey Amendment. Long-term water supply contractors who signed their Monterey Amendment receive interruptible water under Article 21. Long-term water supply contractors who have not signed the Monterey Amendment receive surplus and unscheduled water.

Total SWP Water Delivered. Column 11 shows 2,896,961 acre-feet of total SWP water delivered in 1999. This includes total entitlement water and Article 21 water.

Non-SWP Water Deliveries. Column 12 includes deliveries of nonproject water to long-term water contractors. Nonproject water is generally local water that a SWP contractor has a water right to, or water purchased from or exchanged with non-SWP agencies. In 1999, other water deliveries totaled 25,029 acre-feet.

Total Deliveries. Column 13 shows total amounts of water delivered to long-term contractors. In 1999, the SWP delivered 2,921,990 acre-feet to 27 long-term contractors. This amount included 2,738,891 acre-feet of entitlement water, 158,070 acre-feet of Article 21 water, and 25,029 acre-feet of nonproject water.

Carryover Water Approved for Delivery. For several years, the Department has offered contractors the opportunity to carry over a portion of their entitlement water approved for delivery in the current year for delivery 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 of carrying over entitlement water from 1 year to the next.

In 1999, 303,966 acre-feet of carryover water were approved for future delivery. In addition, 14,956 acre-feet of 14(b) carryover were approved

Figure 9-1
Water Delivered in 1999 and Delivery Locations
of Long-Term Water Supply Contractors and Feather River Area Districts
with Water Rights Agreements with the Department

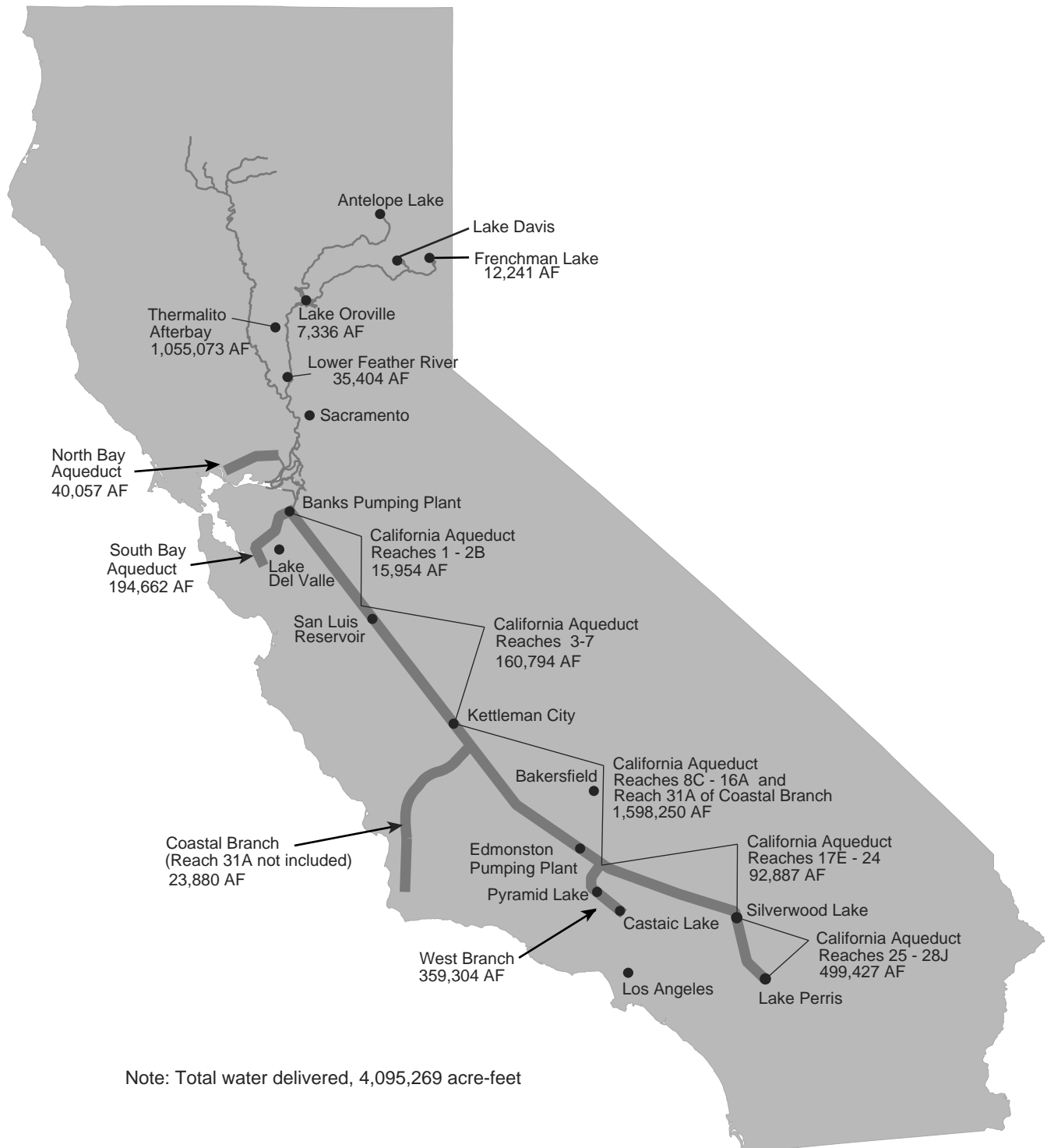


Table 9-2
Water Delivered to Long-Term Contractors through 1999, by Service Area
(Acre-Feet)

Water Contractor or Agency	Water Deliveries in 1999												
	Entitlement Water Deliveries									1999 Article 21 Water (10)	Total SWP Water Delivered (11)	Non-SWP Water Deliveries (12)	Total Deliveries (13)
	1999 Entitlement Water without Transfers, Exchanges, and Storage (1)	1999 Entitlement Water Delivered through Transfers and Exchanges (2)	1999 Entitlement Water Delivered to Storage (3)	Turnback Pool Water (4)	Total 1999 Entitlement Water Delivered (5)	1998 Carryover Entitlement Water Delivered during 1999 (6)	Makeup Water Per Article 12(d) (7)	Makeup Water Per Article 14(b) (8)	Total Entitlement Water (9)				
Feather River Area													
County of Butte	286				286				286		286		286
Plumas County FCWCD	0				0				0		0		0
City of Yuba City	1,096				1,096				1,096		1,096		1,096
North Bay Area													
Napa County FCWCD	4,550				4,550				4,550	754	5,304		5,304
Solano County WA	34,753				34,753				34,753		34,753		34,753
South Bay Area													
Alameda County FCWCD-Zone 7	26,000		20,000		46,000				46,000	2,910	48,910	17,024	65,934
Alameda County WD	21,151		13,720		34,871				34,871	2,781	37,652	7,992	45,644
Santa Clara Valley WD	52,945		14,520		67,465				67,465	15,480	82,945		82,945
San Joaquin Valley Area													
Castaic Lake WA	4,086				4,086				4,086		4,086		4,086
County of Kings	4,000				4,000				4,000		4,000		4,000
Dudley Ridge WD	49,784		3,500	5,066 ^a	58,350				58,350	4,990	63,340		63,340
Empire West Side ID	3,000				3,000				3,000	176 ^b	3,176		3,176
Kern County WA	1,007,144	61,199 ^c		42,154	1,077,497				1,110,497	58,241	1,168,738		1,168,738
Oak Flat WD	4,871				4,871				4,871		4,871		4,871
Tulare Lake Basin WSD	81,730	46,256 ^d		121,337	249,323				249,323	49,898	299,221		299,221
Central Coastal Area													
San Luis Obispo County FCWCD	3,743				3,743				3,743		3,743		3,743
Santa Barbara County FCWCD	20,137				20,137				20,137		20,137		20,137
Southern California													
Antelope Valley-East Kern WA	69,073	1,439 ^e			70,512				70,512		70,512		70,512
Castaic Lake WA	28,813				28,813				28,813		28,813		28,813
Coachella Valley WD	23,100			27,380	50,480				50,480		50,480		50,480
Crestline-Lake Arrowhead WA	1,132				1,132				1,132		1,132	13	1,145
Desert WA	38,100			20,000	58,100				58,100		58,100		58,100
Littlerock Creek ID	342				342				342		342		342
Metropolitan WD	681,605	33,000 ^f	115,172		829,777				829,777	22,840	852,617		852,617
Mojave WA	3,705	3,000 ^g			6,705				6,705		6,705		6,705
Palmdale WD	13,278				13,278				13,278		13,278		13,278
San Bernardino Valley MWD	12,874				12,874				12,874		12,874		12,874
San Gabriel Valley MWD	18,000				18,000				18,000		18,000		18,000
San Geronio Pass WA	0				0				0		0		0
Ventura County FCD	1,850				1,850				1,850		1,850		1,850
Total	2,211,148	144,894	166,912	215,937	2,738,891	0	0	0	2,738,891	158,070	2,896,961	25,029	2,921,990

^a Includes delivery of 229 acre-feet of Pool B water to San Gabriel WA Storage Basin.

^b Unscheduled water.

^c Includes deliveries of: 20,423 acre-feet of exchange entitlement water to Westlands WD; 40,776 acre-feet of transfer entitlement water to Westlands WD.

^d Includes deliveries of: 33,770 acre-feet of exchange entitlement water to Westlands WD; 9,000 acre-feet of exchange entitlement water from Kern County WA; 3,000 acre-feet of transfer entitlement water to Westlands WD; 400 acre-feet of transfer entitlement water from Kern County WA; and 86 acre-feet of transfer entitlement water from Dudley Ridge WD.

^e Transferred entitlement water from Mojave WA.

^f Exchanged entitlement water to Westlands WD.

^g Exchanged entitlement water from Solano County WA.

Table 9-3
Water Delivered in 1999, by Month
(Acre-Feet)

Sheet 1 of 5

Contracting Agency and Type of Service	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	1999 Total Deliveries	1999 Contract Entitlement
Feather River Area														
City of Yuba City														
Entitlement water	0	0	0	0	0	0	590	506	0	0	0	0	1,096	9,600
County of Butte														
Entitlement water	77	77	80	2	1	2	5	20	4	2	13	3	286	2,890
Plumas County Flood Control and Water Conservation District														
Entitlement water	0	0	0	0	0	0	0	0	0	0	0	0	0	1,450
Recreation/Fish and Wildlife														
Recreation/fish and wildlife water	0	0	0	0	0	0	1	0	0	0	0	0	1	
Last Chance Creek Water District														
Regulated delivery of local supply	0	0	0	0	0	1,690	3,602	4,108	1,835	835	171	0	12,241	
Thermalito Irrigation District														
Regulated delivery of local supply	106	106	110	130	282	335	401	350	297	237	109	104	2,567	
Oroville-Wyandotte Irrigation District														
Regulated delivery of local supply	170	158	167	200	929	1,080	1,190	1,170	1,110	967	0	195	7,336	
Western Canal Water District														
Regulated delivery of local supply	3,786	0	0	5,009	59,061	45,843	62,240	48,028	11,937	33,090	32,474	25,143	326,611	
Joint Water Districts Board														
Regulated delivery of local supply	18,950	0	0	19,680	131,460	110,557	126,350	116,320	55,712	44,240	54,850	47,490	725,609	
Oswald Water District														
Regulated delivery of local supply	0	0	0	132	303	414	407	286	180	0	0	0	1,722	
Tudor Mutual Water Company														
Regulated delivery of local supply	0	0	0	131	1,152	1,013	1,343	318	535	80	0	0	4,572	
Garden Highway Mutual Water Company														
Regulated delivery of local supply	0	0	0	1,633	2,635	3,416	4,275	3,243	1,607	0	0	0	16,809	
Plumas Mutual Water Company														
Regulated delivery of local supply	0	0	0	54	2,122	2,448	2,497	1,336	1,250	1,498	0	0	11,205	
SWP	77	77	80	2	1	2	596	526	4	2	13	3	1,383	
Non-SWP	23,012	264	277	26,969	197,944	166,796	202,305	175,159	74,463	80,947	87,604	72,932	1,108,672	
Feather River Area Total	23,089	341	357	26,971	197,945	166,798	202,901	175,685	74,467	80,949	87,617	72,935	1,110,055	13,940
North Bay Area														
Napa County Flood Control and Water Conservation District														
Entitlement water	722	380	286	52	209	242	302	244	202	199	853	859	4,550	15,850
Article 21 water	161	425	168	0	0	0	0	0	0	0	0	0	754	
Agency Total	883	805	454	52	209	242	302	244	202	199	853	859	5,304	
Solano County Water Agency														
Entitlement water	1,694	549	439	658	2,672	3,706	5,356	5,210	4,373	4,568	2,470	3,058	34,753	39,170
Exchange entitlement water to Mojave Water Agency *	0	0	0	0	0	0	0	0	82	986	982	950	3,000	
Agency Total (* excluded)	1,694	549	439	658	2,672	3,706	5,356	5,210	4,373	4,568	2,470	3,058	34,753	
SWP	2,577	1,354	893	710	2,881	3,948	5,658	5,454	4,575	4,767	3,323	3,917	40,057	
North Bay Area Total	2,577	1,354	893	710	2,881	3,948	5,658	5,454	4,575	4,767	3,323	3,917	40,057	55,020
South Bay Area														
Alameda County Flood Control and Water Conservation District-Zone 7														
Entitlement water	107	0	0	0	4,347	0	4,936	3,669	3,913	4,102	2,779	2,147	26,000	46,000
Stored entitlement water	0	0	0	0	0	17,300	2,700	0	0	0	0	0	20,000	
Stored Article 21 water	0	0	2,040	870	0	0	0	0	0	0	0	0	2,910	
General Wheeling	0	0	0	0	0	0	0	1,000	1,000	0	0	0	2,000	
Local water	1,841	1,727	1,849	2,257	500	5,245	853	45	80	242	156	229	15,024	
Agency Total	1,948	1,727	3,889	3,127	4,847	22,545	8,489	4,714	4,993	4,344	2,935	2,376	65,934	
Alameda County Water District														
Entitlement water	1,868	0	1,634	1,561	2,085	0	156	4,314	3,777	3,452	840	1,464	21,151	42,000
Stored entitlement water	0	0	0	0	0	12,620	1,100	0	0	0	0	0	13,720	
Stored Article 21 water	491	830	1,140	320	0	0	0	0	0	0	0	0	2,781	
Local Water	0	1,370	326	417	0	2,381	3,498	0	0	0	0	0	7,992	
Agency Total	2,359	2,200	3,100	2,298	2,085	15,001	4,754	4,314	3,777	3,452	840	1,464	45,644	

Table 9-3 (Continued)
Water Delivered in 1999, by Month
(Acre-Feet)

Sheet 2 of 5

Contracting Agency and Type of Service	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	1999 Total Deliveries	1999 Contract Entitlement
Santa Clara Valley Water District														
Entitlement water	1,632	1,221	0	0	1,079	3,767	6,233	8,625	8,333	7,716	7,115	7,224	52,945	100,000
Stored entitlement water	0	0	0	0	0	14,520	0	0	0	0	0	0	14,520	
Stored Article 21 water	600	5,390	7,620	1,870	0	0	0	0	0	0	0	0	15,480	
Agency Total	2,232	6,611	7,620	1,870	1,079	18,287	6,233	8,625	8,333	7,716	7,115	7,224	82,945	
Recreation/Fish and Wildlife														
Recreation/fish and wildlife water	2	1	4	5	12	21	24	20	22	15	8	5	139	
SWP	4,700	7,442	12,438	4,626	7,523	48,228	15,149	16,628	16,045	15,285	10,742	10,840	169,646	
Non-SWP	1,841	3,097	2,175	2,674	500	7,626	4,351	1,045	1,080	242	156	229	25,016	
South Bay Area Total	6,541	10,539	14,613	7,300	8,023	55,854	19,500	17,673	17,125	15,527	10,898	11,069	194,662	188,000
San Joaquin Valley Area														
Castaic Lake Water Agency														
Entitlement water	106	860	1,470	1,038	256	63	46	47	0	0	0	200	4,086	12,700
County of Kings														
Entitlement water	0	0	0	400	400	500	500	500	400	400	400	500	4,000	4,000
Dudley Ridge Water District														
Entitlement water	1,599	1,021	1,151	3,210	7,192	9,568	9,600	9,600	4,346	2,294	203	0	49,784	53,370
Article 21 water	744	597	1,775	523	0	0	0	0	0	0	0	0	3,669	
Stored Article 21 water	1,321	0	0	0	0	0	0	0	0	0	0	0	1,321	
Purchase Pool A entitlement water	0	0	0	0	0	0	3,274	1,006	0	0	256	301	4,837	
Purchase Pool B entitlement water	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stored Pool B entitlement water (San Gabriel WA Storage Basin) *	0	0	0	0	0	0	0	0	0	0	0	229	229	
Stored entitlement water (San Gabriel WA Storage Basin) *	0	0	0	0	0	0	0	0	0	0	493	3,007	3,500	
Transfer entitlement water to Tulare Lake Basin WSD *	0	0	0	0	0	0	86	0	0	0	0	0	86	
Agency Total (* excluded water)	3,694	1,618	2,926	3,733	7,192	9,568	12,874	10,606	4,346	2,294	952	3,537	63,340	
Empire West Side Irrigation District														
Entitlement water	0	0	180	148	449	504	540	629	157	142	248	3	3,000	3,000
Article 21 unscheduled water	0	0	176	0	0	0	0	0	0	0	0	0	176	
Agency Total	0	0	356	148	449	504	540	629	157	142	248	3	3,176	
Kern County Water Agency														
Entitlement water	10,751	14,362	21,463	38,454	94,937	157,802	242,820	196,552	83,937	79,541	43,591	22,934	1,007,144	1,087,730
Article 21 water	11,919	6,970	23,825	15,527	0	0	0	0	0	0	0	0	58,241	
Purchase Pool A entitlement water	0	0	0	0	0	1,300	0	0	3,700	1,027	5,556	9,271	20,854	
Purchase Pool B entitlement water	0	0	0	0	347	0	0	1,875	6,300	8,587	3,645	546	21,300	
Exchange entitlement water to Westlands Water District *	0	0	0	0	0	0	0	10,500	3,406	4,600	1,080	837	20,423	
Exchange entitlement water to Tulare Lake Basin WSD *	0	0	0	0	0	0	2,000	2,000	0	0	5,000	0	9,000	
Transfer entitlement water to Westlands Water District *	0	0	0	0	0	0	18,000	22,776	0	0	0	0	40,776	
Transfer entitlement water to Tulare Lake Basin WSD *	0	0	0	0	0	0	200	200	0	0	0	0	400	
Agency Total (* excluded water)	22,670	21,332	45,288	53,981	95,284	159,102	242,820	198,427	93,937	89,155	52,792	32,751	1,107,539	
Oak Flat Water District														
Entitlement water	3	29	152	380	764	1,004	1,122	776	246	268	8	119	4,871	5,700
Tulare Lake Basin Water Storage District														
Entitlement water	0	0	0	2,934	11,277	20,330	20,330	21,330	5,529	0	0	0	81,730	118,500
Article 21 water	12,439	5,058	26,198	6,203	0	0	0	0	0	0	0	0	49,898	
Purchase Pool A entitlement water	0	0	0	0	0	7,149	16,557	9,884	17,674	0	0	0	51,264	
Purchase Pool B entitlement water	0	0	0	0	0	0	0	0	60	27,893	27,744	14,376	70,073	
Exchange entitlement water from Kern County WA	0	0	0	0	0	0	2,000	2,000	0	0	5,000	0	9,000	
Transfer entitlement water from Kern County WA	0	0	0	0	0	0	200	200	0	0	0	0	400	
Transfer entitlement water from Dudley Ridge WD	0	0	0	0	0	0	86	0	0	0	0	0	86	
Exchange entitlement water to Westlands Water District *	0	0	0	5,000	15,000	0	0	0	0	0	0	13,770	33,770	
Transfer entitlement water to Westlands Water District *	0	0	0	0	1,000	1,000	1,000	0	0	0	0	0	3,000	
Agency Total (* excluded water)	12,439	5,058	26,198	9,137	11,277	27,479	39,173	33,414	23,263	27,893	32,744	14,376	262,451	
Westlands Water District														
Transfer entitlement water from Kern County WA	0	0	0	0	0	0	18,000	22,776	0	0	0	0	40,776	
Transfer entitlement water from Tulare Lake Basin WSD	0	0	0	0	1,000	1,000	1,000	0	0	0	0	0	3,000	
Exchange entitlement water from Kern County WA	0	0	0	0	0	0	0	10,500	3,406	4,600	1,080	837	20,423	
Exchange entitlement water from Tulare Lake Basin WSD	0	0	0	5,000	15,000	0	0	0	0	0	0	13,770	33,770	
Exchange entitlement water from MWD	0	0	0	0	0	0	0	15,000	9,000	6,000	3,000	0	33,000	
Total Entitlement	0	0	0	5,000	16,000	1,000	19,000	48,276	12,406	10,600	4,080	14,607	130,969	

Table 9-3 (Continued)
Water Delivered in 1999, by Month
(Acre-Feet)

Sheet 3 of 5

Contracting Agency and Type of Service	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	1999 Total Deliveries	1999 Contract Entitlement
Water from Lower Tule River	0	0	0	0	0	0	0	0	0	2,000	4,340	0	6,340	
Water from Pixley ID	0	0	0	0	0	0	0	0	0	2,000	1,446	0	3,446	
Water from Kern-Tulare WD	0	0	0	0	0	0	0	0	0	2,500	3,455	0	5,955	
Water from Rag Gulch WD	0	0	0	0	0	0	0	0	0	2,500	1,134	0	3,634	
Total CVP water	0	0	0	0	0	0	0	0	0	9,000	10,375	0	19,375	
Agency Total (* excluded water)	0	0	0	5,000	16,000	1,000	19,000	48,276	12,406	19,600	14,455	14,607	150,344	
Recreation/Fish and Wildlife														
Department of Fish and Game	29	26	18	38	42	120	93	124	120	95	41	66	812	
Department of Parks and Recreation	2	1	1	6	11	14	14	12	11	16	4	1	93	
Total	31	27	19	44	53	134	107	136	131	111	45	67	905	
SWP	38,943	28,924	76,233	73,461	131,275	198,854	315,682	292,311	134,486	130,463	90,376	62,424	1,573,432	
Non-SWP	0	0	176	0	0	0	0	0	0	9,000	10,375	0	19,551	
San Joaquin Valley Area subtotal	38,943	28,924	76,409	73,461	131,275	198,854	315,682	292,311	134,486	139,463	100,751	62,424	1,592,983	1,282,000
San Joaquin Valley Area														
CVP Water Annual Contracts														
Tracy Golf and CC	0	0	0	0	17	42	50	36	20	17	12	10	204	
Musco Olive Products, Inc.	39	39	36	33	32	35	5	5	21	46	42	27	360	
U.S. Department of Veteran Affairs	2	2	3	2	4	5	6	5	5	4	2	3	43	
Subtotal	41	41	39	35	53	82	61	46	46	67	56	40	607	
Cross Valley Canal Contracts														
To Westlands WD from Lower Tule River *	0	0	0	0	0	0	0	0	0	2,000	4,340	0	6,340	
To Westlands WD from Pixley ID *	0	0	0	0	0	0	0	0	0	2,000	1,446	0	3,446	
To Westlands WD from Kern-Tulare WD *	0	0	0	0	0	0	0	0	0	2,500	3,455	0	5,955	
To Westlands WD from Rag Gulch WD *	0	0	0	0	0	0	0	0	0	2,500	1,134	0	3,634	
Subtotal (* excluded water)	0	0	0	0	0	0	0	0	0	0	0	0	0	
U.S. Bureau Of Reclamation														
USFWS Kern National Wildlife Refuge	254	0	0	0	645	61	205	1,857	3,607	3,847	0	0	10,476	
Friant Water Users Authority	0	0	0	0	0	0	4,494	1,544	2,874	3,892	0	0	12,804	
USBR	0	16,281	0	0	0	0	0	0	0	0	0	0	16,281	
Subtotal	254	16,281	0	0	645	61	4,699	3,401	6,481	7,739	0	0	39,561	
Recreation/fish and wildlife water (San Luis)	24	23	15	39	42	110	86	113	105	92	36	55	740	
SWP	0	0	0	0	0	0	0	0	0	0	0	0	0	
Non-SWP	319	16,345	54	74	740	253	4,846	3,560	6,632	16,898	10,467	95	60,283	
San Joaquin Valley Area subtotal	319	16,345	54	74	740	253	4,846	3,560	6,632	16,898	10,467	95	60,283	
SWP	38,943	28,924	76,233	73,461	131,275	198,854	315,682	292,311	134,486	130,463	90,376	62,424	1,573,432	
Non-SWP	319	16,345	230	74	740	253	4,846	3,560	6,632	25,898	20,842	95	79,834	
San Joaquin Valley Area Total	39,262	45,269	76,463	73,535	132,015	199,107	320,528	295,871	141,118	156,361	111,218	62,519	1,653,266	1,282,000
Central Coastal Area														
San Luis Obispo County Flood Control and WCD														
Entitlement water	194	287	272	279	342	351	357	390	343	340	273	315	3,743	25,000
Santa Barbara County Flood Control and WCD														
Entitlement water	1,017	857	1,222	1,293	2,105	2,002	2,363	2,458	2,335	2,073	1,081	1,331	20,137	45,486
SWP	1,211	1,144	1,494	1,572	2,447	2,353	2,720	2,848	2,678	2,413	1,354	1,646	23,880	
Non-SWP	0	0	0	0	0	0	0	0	0	0	0	0	0	
Central Coastal Area Total	1,211	1,144	1,494	1,572	2,447	2,353	2,720	2,848	2,678	2,413	1,354	1,646	23,880	70,486

Table 9-3 (Continued)
Water Delivered in 1999, by Month
(Acre-Feet)

Sheet 4 of 5

<i>Contracting Agency and Type of Service</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug.</i>	<i>Sep.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>	<i>1999 Total Deliveries</i>	<i>1999 Contract Entitlement</i>
Southern California Area														
Antelope Valley-East Kern Water Agency														
Entitlement water	2,406	1,873	3,967	4,876	7,594	8,841	9,814	9,221	8,293	6,318	3,072	2,798	69,073	138,400
Transfer entitlement water from Mojave Water Agency	106	88	83	87	144	164	162	208	147	124	54	72	1,439	
Agency Total	2,512	1,961	4,050	4,963	7,738	9,005	9,976	9,429	8,440	6,442	3,126	2,870	70,512	
Castaic Lake Water Agency														
Entitlement water	975	754	1,156	1,283	2,411	2,908	3,710	3,787	3,324	3,314	2,701	2,490	28,813	41,500
Coachella Valley Water District														
Entitlement water	1,058	1,163	2,088	2,088	2,088	2,088	2,088	2,088	2,088	2,088	2,088	2,087	23,100	23,100
Purchase Pool B entitlement water	0	0	0	0	0	3,911	3,912	3,912	3,912	3,912	3,912	3,909	27,380	
Agency Total	1,058	1,163	2,088	2,088	2,088	5,999	6,000	6,000	6,000	6,000	6,000	5,996	50,480	
Crestline-Lake Arrowhead Water Agency														
Entitlement water	53	30	39	70	53	112	170	168	173	119	53	92	1,132	5,800
Local water	0	12	0	1	0	0	0	0	0	0	0	0	13	
Agency Total	53	42	39	71	53	112	170	168	173	119	53	92	1,145	
Desert Water Agency														
Entitlement water	1,746	1,919	3,443	3,443	3,444	3,444	3,444	3,444	3,444	3,444	3,444	3,441	38,100	38,100
Purchase Pool B entitlement water	0	0	0	0	0	2,857	2,857	2,857	2,857	2,857	2,857	2,858	20,000	
Agency Total	1,746	1,919	3,443	3,443	3,444	6,301	6,301	6,301	6,301	6,301	6,301	6,299	58,100	
Little Rock Creek Irrigation District														
Entitlement water	0	0	15	37	51	65	54	49	41	30	0	0	342	2,300
Metropolitan Water District of Southern California														
Entitlement water	32,316	20,071	39,072	50,469	39,006	44,344	63,870	68,942	60,903	109,277	68,490	84,845	681,605	2,011,500
Stored entitlement water	0	0	8,041	30,036	51,184	14,155	0	0	2,958	137	4,292	4,369	115,172	
Stored Article 21 water	850	7,950	10,120	3,920	0	0	0	0	0	0	0	0	22,840	
Exchange entitlement water to Westlands Water District*	0	0	0	0	0	0	0	15,000	9,000	6,000	3,000	0	33,000	
Agency Total (* excluded)	33,166	28,021	57,233	84,425	90,190	58,499	63,870	68,942	63,861	109,414	72,782	89,214	819,617	
Mojave Water Agency														
Entitlement water	113	8	129	279	221	678	779	118	0	0	0	1,380	3,705	75,800
Exchange entitlement water from Solano County WA	0	0	0	0	0	0	0	0	82	986	982	950	3,000	
Transfer entitlement water to Antelope Valley-East Kern WA *	106	88	83	87	144	164	162	208	147	124	54	72	1,439	
Agency Total (* excluded water)	113	8	129	279	221	678	779	118	82	986	982	2,330	6,705	
Palmdale Water District														
Entitlement water	20	28	342	316	1,472	1,877	2,185	2,253	1,879	1,530	743	633	13,278	17,300
San Bernardino Valley Municipal Water District														
Entitlement water	28	74	62	12	322	1,097	2,132	2,193	1,949	2,046	1,617	1,342	12,874	102,600
San Gabriel Valley Municipal Water District														
Entitlement water	0	0	775	383	2,016	2,798	2,801	2,714	2,995	3,312	206	0	18,000	28,800
San Geronio Pass Water Agency														
Entitlement water	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000
Ventura County Flood Control District														
Entitlement water	154	154	154	154	154	154	154	154	154	154	154	156	1,850	20,000
Recreation/Fish and Wildlife														
Recreation/fish and wildlife water	106	74	94	111	145	311	334	423	679	195	150	657	3,279	
SWP	39,931	34,186	69,580	97,564	110,305	89,804	98,466	102,531	95,878	139,843	94,815	112,079	1,084,982	
Non-SWP	0	12	0	1	0	0	0	0	0	0	0	0	13	
Southern California Area Total	39,931	34,198	69,580	97,565	110,305	89,804	98,466	102,531	95,878	139,843	94,815	112,079	1,084,995	2,507,200

Table 9-3 (Continued)
Water Delivered in 1999, by Month
(Acre-Feet)

Sheet 5 of 5

<i>Contracting Agency and Type of Service</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug.</i>	<i>Sep.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>	<i>1999 Total Deliveries</i>	<i>1999 Contract Entitlement</i>
SWP Water														
Long-Term Water Supply Contracts														
Agriculture and M&I entitlement water	58,639	45,717	79,591	113,819	186,947	268,247	386,457	350,001	203,138	236,729	142,442	139,421	2,211,148	4,116,646
Article 21 water and stored Article 21 water	28,555	27,220	72,886	29,233	0	0	0	0	0	0	0	0	157,894	
Article 21 unscheduled water	0	0	176	0	0	0	0	0	0	0	0	0	176	
Transfer entitlement water	106	88	83	87	1,144	1,164	19,448	23,184	147	124	54	72	45,701	
Exchange entitlement water	0	0	0	5,000	15,000	0	2,000	27,500	12,488	11,586	10,062	15,557	99,193	
Stored entitlement water	0	0	8,041	30,036	51,184	58,595	3,800	0	2,958	137	4,785	7,376	166,912	
Purchase Pool A entitlement water	0	0	0	0	0	8,449	19,831	10,890	21,374	1,027	5,812	9,572	76,955	
Purchase Pool B entitlement water	0	0	0	0	347	6,768	6,769	8,644	13,129	43,249	38,158	21,689	138,753	
Stored Pool B water	0	0	0	0	0	0	0	0	0	0	0	229	229	
Subtotal (<i>long-term water supply contracts</i>)	87,300	73,025	160,777	178,175	254,622	343,223	438,305	420,219	253,234	292,852	201,313	193,916	2,896,961	
Recreation/fish and wildlife water	139	102	117	160	210	466	466	579	832	321	203	729	4,324	
Total (SWP water)	87,439	73,127	160,894	178,335	254,832	343,689	438,771	420,798	254,066	293,173	201,516	194,645	2,901,285	
Non-SWP Water														
Other water														
Local water	24,853	3,373	2,452	29,644	198,444	174,422	206,656	175,204	74,543	81,189	87,760	73,161	1,131,701	
General wheeling	0	0	0	0	0	0	0	1,000	1,000	0	0	0	2,000	
Subtotal (<i>other water</i>)	24,853	3,373	2,452	29,644	198,444	174,422	206,656	176,204	75,543	81,189	87,760	73,161	1,133,701	
CVP Water														
Cross Valley Canal Contracts	0	0	0	0	0	0	0	0	0	9,000	10,375	0	19,375	
Annual Contracts	41	41	39	35	53	82	61	46	46	67	56	40	607	
USBR	254	16,281	0	0	645	61	4,699	3,401	6,481	7,739	0	0	39,561	
Recreation/fish and wildlife water (San Luis)	24	23	15	39	42	110	86	113	105	92	36	55	740	
Subtotal (<i>CVP water</i>)	319	16,345	54	74	740	253	4,846	3,560	6,632	16,898	10,467	95	60,283	
Total (Non-SWP water)	25,172	19,718	2,506	29,718	199,184	174,675	211,502	179,764	82,175	98,087	98,227	73,256	1,193,984	
Grand Total	112,611	92,845	163,400	208,053	454,016	518,364	650,273	600,562	336,241	391,260	299,743	267,901	4,095,269	4,116,646

Table 9-4
Total Amounts of Annual Water Entitlements and Water Conveyed, by Type, 1962-99
(Acre-Feet)

Year	Annual Entitlements According to Long-Term Water Supply Contracts							Water Conveyed							
	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)	Losses and Storage Changes ^d (15)	Total (16)
								Entitlement Water (8)	Article 21 ^a (9)	Other Water ^b (10)	Feather River Diversions ^c (11)	Wildlife/ Recreation Water (12)			
1962	0	0	0	0	0	0	0	0	0	18,289		0	9	272	18,570
1963	0	0	0	0	0	0	0	0	0	22,456		0	71	185	22,712
1964	0	0	0	0	0	0	0	0	0	32,507		0	171	152	32,830
1965	0	0	0	0	0	0	0	0	0	44,105		0	93	729	44,927
1966	0	0	0	0	0	0	0	0	0	67,928		0	0	1,746	69,674
1967	0	0	11,538	0	0	0	11,538	11,538	0	53,605		0	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	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	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	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	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	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	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	10,657	2,499,919
1975	1,610	0	124,500	545,809	0	714,950	1,386,869	1,223,900	622,902	63,793	862,218	3,377	2,776,280	(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	(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	(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	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	(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	(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	(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	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	(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	(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	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	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	(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	(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	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	(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	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	(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		254,854	822,589	2,609	3,395,287	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	(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	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	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	(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	(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	(189,525)	3,905,744
Total	165,090	453,401	4,696,638	28,259,919	870,428	49,459,509	83,904,985	48,693,882	6,303,497	6,871,592	26,353,862	119,023	88,341,856	45,950	90,222,116

^a Includes deliveries to short-term contractors (Mustang Water District, 1970-1972; Tracy Golf and Country Club, 1974, 1979, and 1980; Green Valley Water District, 1974, 1975, 1978, 1979, 1980, and 1985; Granite Construction Company, 1980). Surplus, extra surplus, unscheduled, and interruptible water are included.

^b Includes water conveyed for SWP and non-SWP water contractors.

^c Includes 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.

for delivery in 2000 due to maintenance and repair of the Aqueduct, which prevented delivery of this water to two contractors in 1999.

Water Delivered in 1999, by Month

During 1999, the SWP provided water service to 42 agencies, including 27 long-term water contractors. Those agencies and the amounts of water delivered to them by month are listed in Table 9-3.

This section and the accompanying table summarize water deliveries for 1999. Information about those deliveries is categorized as SWP water and non-project water.

State Water Project Water

SWP water is classified into the following categories:

Long-term water supply contracts

current year entitlement

Article 21

transfer and exchange entitlement

carryover entitlement

stored

turnback pools A and B entitlement

Recreation and fish and wildlife water

enhancement

mitigation

Operational flood release water

operational flood release

The SWP may approve exchanges and transfers of entitlement water among various contractors if certain conditions are met.

In 1999, SWP water was delivered in the following classifications and amounts.

Entitlement Water. A total of 2,738,891 acre-feet of 1999 entitlement water was delivered to 27 long-term contractors.

Article 21 Water. A total of 158,070 acre-feet of Article 21 water was delivered in 1999.

Transfers and Exchanges of Entitlement Water. During 1999, a total of 144,894 acre-feet of entitle-

ment water was transferred to or exchanged between SWP long-term contractors and non-SWP water agencies as follows:

- DRWD transferred to TLBWSD, 86 acre-feet
- KCWA exchanged with WWD, 20,423 acre-feet
- KCWA transferred to WWD, 40,776 acre-feet
- KCWA exchanged with TLBWSD, 9,000 acre-feet
- KCWA transferred to TLBWSD, 400 acre-feet
- TLBWSD transferred to WWD, 16,770 acre-feet
- TLBWSD exchanged with WWD, 20,000 acre-feet
- MWA transferred to AVEKWA, 1,439 acre-feet
- MWD exchanged with WWD, 33,000 acre-feet
- SCWA exchanged with MWA, 3,000 acre-feet

Other Exchanges of Entitlement Water. In 1999, nonproject water was exchanged for project water as follows.

U.S. Bureau of Reclamation. A water exchange between USBR and the Department was approved June 23, 1999. From July 1 through November 24, 1999, approximately 54 acre-feet were moved from the Sacramento River at the Colusa Bypass for an equivalent amount of SWP water from Lake Oroville. The exchange was made under the *Agreement between the United States of America and the Department of Water Resources of the State of California for Coordinated Operation of the Central Valley Project and the State Water Project*, dated November 24, 1986.

Carryover Entitlement Water. There was no 1998 entitlement water carried in SWP storage facilities for delivery in 1999.

Article 21 Water. The Article 21 water program allows a contractor to take delivery of water over the approved and scheduled allocations for the current year (for more information about Article 21 water, see page 114). Article 21 water is available for delivery on a short-term basis as determined by the Department when scheduled project demands are being delivered and operational requirements for project water deliveries, water quality, and other requirements are being met.

- In 1999, eight contractors participated in the program. A total of 158,070 acre-feet of Article 21 water was delivered to NCFCWCD, EWSID, ACFCWCD-Zone 7, ACWD, SCVWD, DRWD, KCWA, TLBWSD, and MWD.

Water for Recreation and Fish and Wildlife. A total of 4,324 acre-feet of SWP water was conveyed for recreational use and enhancement of fish and wildlife.

Recreational Use. The SWP delivered 629 acre-feet of water for facilities at Lake Oroville, Lake Del Valle, O'Neill Forebay, Silverwood Lake, and Lake Perris. In addition, 2,865 acre-feet were delivered to Castaic Lake and Castaic Lagoon, an impoundment downstream from Castaic Lake devoted entirely to recreation.

Trout Fishery. The SWP released 18 acre-feet of water to maintain a trout fishery in Piru Creek as a condition of obtaining a license from the Federal Energy Regulatory Commission to develop a power plant at Pyramid Lake.

Wildlife Management. The SWP delivered 812 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 1999.

Non-State Water Project Water

In 1999, 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 follows.

Alameda County Flood Control and Water

Conservation District-Zone 7. Under a contract executed July 28, 1995, between the Department and ACFCWCD-Zone 7, the Department conveyed 2,000 acre-feet of non-SWP water for ACFCWCD-Zone 7 during 1999. The Department conveyed this water from August through October

directly from the Delta to Reach 6 of the South Bay Aqueduct. ACFCWCD-Zone 7 purchased the rights to transfer this water from BBID under a separate contract.

Central Valley Project Water. In 1999, the Department conveyed 60,283 acre-feet of CVP water through SWP facilities. Conveyance was made in accordance with agreements negotiated with USBR and contractors receiving water from USBR through the CVP as follows.

Cross Valley Canal Contractors. Under four individual agreements between the Department and LTRID, PID, RGWD, and KTWD dated December 21, 1999, the Department conveyed 6,340, 3,446, 3,634, and 5,955 acre-feet of CVP water for each district to WWD's turnouts in Reach 4 and Reach 5 of the California Aqueduct, respectively.

Friant Water Users Authority. Under an agreement dated September 24, 1999, the Department conveyed 12,804 acre-feet of CVP water from the San Luis Canal at Kettleman City to the CVC turnout at Tushman. The water was identified as exchange water. Conveyance will continue into 2000.

Musco Olive Products, Incorporated. In accordance with terms of a conveyance agreement with USBR, dated September 16, 1999, the Department conveyed 360 acre-feet of CVP water to Reach 2A of the California Aqueduct for Musco Olive Products, Inc.

Recreational and Wildlife Use. In 1999, the Department conveyed 740 acre-feet of CVP water to DFG at O'Neill Forebay and WWD's Lateral 4L within Reach 5 of the joint-use facilities of the California Aqueduct.

Tracy Golf and Country Club. Under an agreement with the Tracy Golf and Country Club, the Department conveyed 204 acre-feet of CVP water to the course for irrigation purposes. The agreement is expected to be executed in August 2000.

U.S. Bureau of Reclamation. Under an agreement, dated August 18, 1999, the Department conveyed 16,281 acre-feet of CVP water through the California Aqueduct to O'Neill Forebay to replace exports

forgone at the Tracy Pumping Plant in January due to fishery protections measures pursuant to Anadromous Fish Restoration Program Action No. 8.

U.S. Department of Veterans Affairs. Under an annual agreement with USBR, dated February 24, 1999, the Department conveyed 43 acre-feet through SWP facilities to maintain the San Joaquin Valley National Cemetery near Santa Nella, California. The Department conveyed this water to Reach 2B of the California Aqueduct.

U.S. Fish and Wildlife Service. The Department conveyed 10,476 acre-feet of CVP water for USFWS according to provisions of an amended cooperative agreement initiated by USBR dated September 9, 1994. The water was conveyed to the Kern National Wildlife Refuge through Reach 10A of the California Aqueduct.

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 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 1999, 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 1999, 1,131,701 acre-feet of water in this category were delivered to the Feather River, South Bay, and Southern California areas.

Feather River Area. Nine nonproject agencies in the Feather River area received 1,108,672 acre-feet. Those agencies are

- Last Chance Creek Water District, 12,241 acre-feet
- Thermalito Irrigation District, 2,567 acre-feet
- Oroville-Wyandotte Irrigation District, 7,336 acre-feet

- Western Canal Water District, 326,611 acre-feet
- Joint Water District Board, 725,609 acre-feet
- Tudor Mutual Water Company, 4,572 acre-feet
- Oswald Water District, 1,722 acre-feet
- Garden Highway Water Company, 16,809 acre-feet
- Plumas Mutual Water Company, 11,205 acre-feet

South Bay Area. In the South Bay area, 23,016 acre-feet of local water were delivered to ACFCWCD-Zone 7 and ACWD. These two South Bay Aqueduct contractors hold water rights to runoff from the Lake Del Valle watershed.

Southern California. In Southern California, 13 acre-feet of local runoff from the Houston Creek watershed were stored and delivered to CLAWA under local water rights. These local water rights have been signed over to the Department as part of the contractual arrangements for storing and delivering this local runoff for CLAWA.

Annual Water Entitlements and Water Delivered Since 1962

Information about annual water entitlements and water conveyed for the past 38 years is contained in Table 9-4. The following discussion of entitlements and water conveyed is arranged according to column numbers.

Annual Entitlements. Columns 1 through 7 of Table 9-4 show the amount of the long-term contractor's entitlement water by area for years 1962 through 1999 as specified in the entitlement schedules (Table A, Annual Entitlements) of the long-term water supply contracts.

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

Water Delivered. Columns 8 through 17 show water delivered or conveyed, including initial fill water and operational losses and storage changes.

Entitlement Water. Column 8 shows amounts of entitlement water delivered each year from 1962 through 1999.

Article 21 Water. Article 21 water is water in excess of that required to meet all demands for entitlement water and water to be stored in SWP reservoirs.

Column 9 shows amounts of Article 21 water, as defined under *SWP Deliveries* (see page 114), delivered from 1962 through 1999.

Column 10 includes amounts of water classified as other water delivered in 1999, including nonproject water conveyed through SWP facilities and regulated delivery of local supply.

In 1999, a total of 85,312 acre-feet of other water was delivered.

Feather River Diversions. Column 12 includes amounts of water from the Feather River delivered according to agreements for water rights water. In 1999, a total of 1,108,672 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 1999, a total of 4,324 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 provided by the State Water Project Analysis Office.
