SECTION 3.1: CONTRACTOR SERVICE AREA DESCRIPTIONS

This section describes the service areas for the 20 contractors analyzed in this document that receive CVP water from the Delta-Mendota Canal. The study area, shown on Figure 3.1-1, includes portions of San Joaquin, Stanislaus, Merced, and Fresno Counties. Specifically, the study area includes the service areas of the following irrigation districts, water districts, and other contractors:

- Banta-Carbona Irrigation District
- Broadview Water District
- Centinella Water District
- City of Tracy
- Coehlo Family Trust Property
- Del Puerto Water District
- Eagle Field Water District
- Fresno Slough Water District
- James Irrigation District
- Laguna Water District
- Tranquillity Public Utilities District
- Mercy Springs Water District
- Oro Loma Water District
- Patterson Irrigation District
- Plain View Water District
- Reclamation District #1606
- The West Side Irrigation District
- Tranquillity Irrigation District
- West Stanislaus Water District
- Widren Water District

DMC UNIT CONTRACTORS' FACILITIES AND WATER USE

This section provides a general description of the contractors within the DMC Unit and a discussion of both the CVP and other available water supplies to them. The information provided for the individual districts is summary information only. For example, the sections titled "Operating Rules and Procedures" address only surface or subsurface drainage systems and transfers. In addition, individual districts have rules regarding the terms for delivery of water that require that water be put to reasonable and beneficial use and require compliance with Reclamation law.

BANTA-CARBONA IRRIGATION DISTRICT'S FACILITIES AND WATER USE

Because low rainfall conditions had created potential dry-farming crop failures, farmers and landowners wanting to remain in business banded together and organized the Banta-Carbona Irrigation District, which was officially formed on March 14, 1921. The district

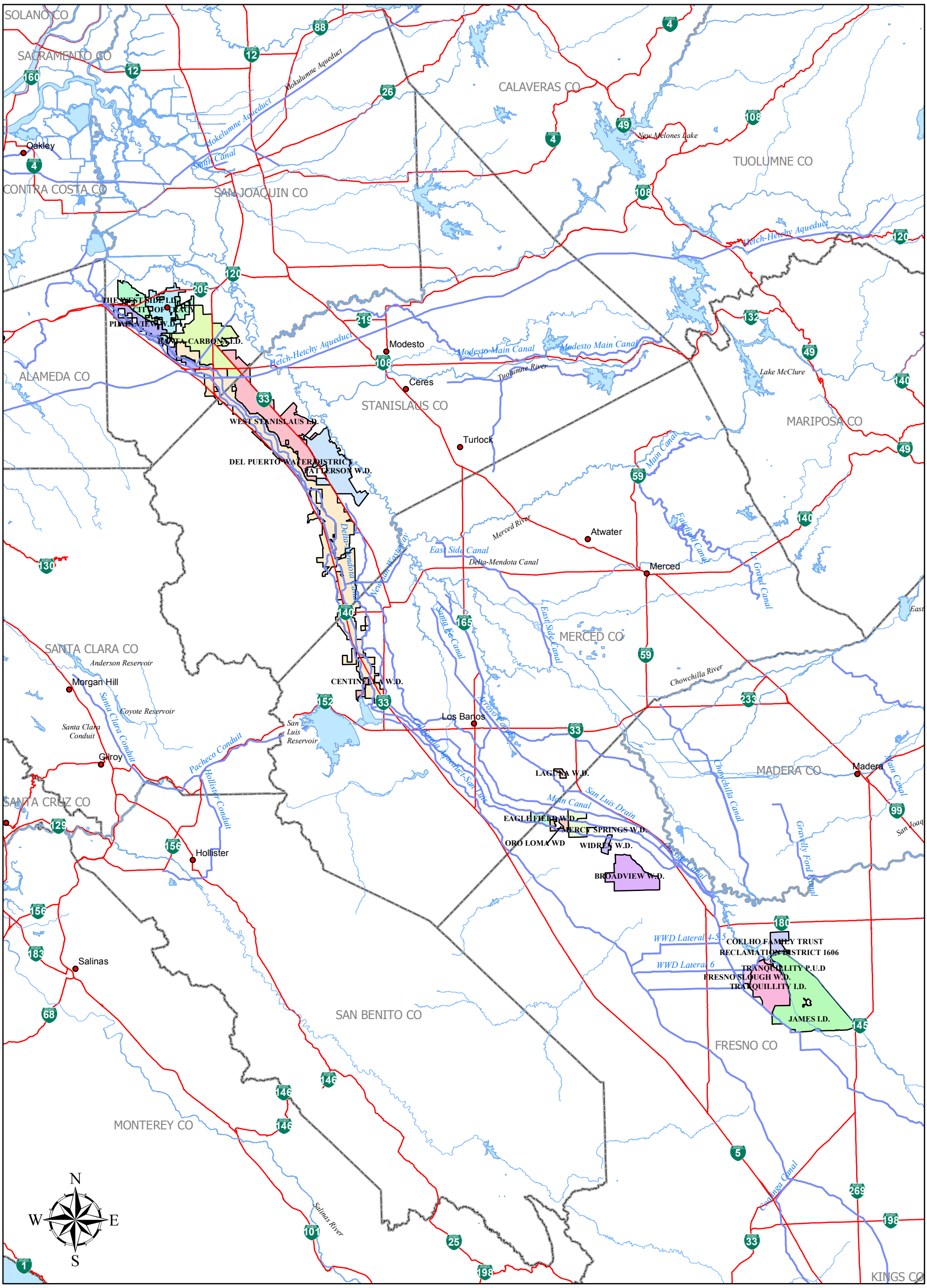

Figure 3.1-1 Long Term Contract Renewal: Central Valley Project, Delta Mendota Canal Unit

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DISCLAIMER
This map is intended to be a graphical representation only.
It is not a legal document and is not intended to be used as such.
The Bureau of Reclamation gives no guarantee,
expressed or implied, as to the accuracy or reliability of the data.

was originally about 15,500 acres in size with no irrigated acres and is currently about 17,000 acres in size with 15,841 irrigated acres. The district is located in San Joaquin County just south of the city of Tracy and is adjacent to the Del Puerto Water District to the southwest and the West Stanislaus Water District to the southeast. Figures 3.1-2 and 3.1-3 show the current land use/land cover and boundary for the Banta-Carbona Irrigation District service area.

The distribution system in the Banta-Carbona Irrigation District consists of 2.5 miles of unlined canal, 33.2 miles of concrete-lined canal, and 46 miles of underground pipeline. CVP water from the Delta-Mendota Canal is gravity-fed through two turnouts and is then distributed through a pipeline connected to the Banta-Carbona Main Lift Canal. All of the district's facilities are either pump or gravity delivery canals. Currently, all gates within the district are manually operated and all the turnouts are measured daily.

Use of CVP Water

On February 14, 1969, Banta-Carbona Irrigation District entered into a long-term contract (Contract 14-06-200-4305A) with Reclamation for 25,000 acre-feet of CVP supply. The contract expired on February 28, 1995. Since then, a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-4305A-IR8) was executed on February 27, 2004, and will remain in effect for two years.

Use of Other Available Water Supplies

The district also receives water supply from the Delta. This supply was originally a very dependable, high quality water source that has gradually degraded as more permits for water rights were granted and the water supply ran short to meet the new diversion quantities. The quality and reliability of the Delta water has continued to worsen. Water from the Delta and CVP water are the only water supplies available to the district.

Operating Rules and Regulations

District policy requires all landowners to have either tailwater pumpback systems to recycle their tailwater or ponds to settle silt before the water is drained back into a district lateral for reuse. As a result, the Banta-Carbona Irrigation District's system is closed and no water escapes the district.

In addition to the policies stated in this section, the Banta-Carbona Irrigation District requires that all water delivered be put to reasonable and beneficial use. If water is wasted or improperly used, the watermaster may refuse further delivery or water until the cause of waste is removed. Water users are required to maintain their ditches and facilities for conveying water in good condition, free from weeds and foul growth, so that water can be

used without undue loss or waste of water or time. Water users pay for water on a per acre-foot basis on water actually delivered.

Banta-Carbona Irrigation District is also active in water transfers and has previously transferred water to The West Side Irrigation District, West Stanislaus Irrigation District, Panoche Water District, Broadview Water District, and Westlands Water District. Banta-Carbona Irrigation District has also informed Reclamation that it has transferred a portion of its CVP supply to the City of Tracy. Reclamation recently approved a contract assignment of 5,000 acre-feet per year from Banta-Carbona Irrigation District to the City of Tracy.

BROADVIEW WATER DISTRICT'S FACILITIES AND WATER USE

A group of landowners and farmers originally within the Westlands Water District pulled out and formed Broadview Water District on August 16, 1955. Broadview Water District is located on the west side of the San Joaquin Valley and is approximately five miles west of the city of Firebaugh, in Fresno County. The district is approximately 9,515 acres in size with 9,067 irrigated acres. All of the land in the district is high quality production land. There is no marginal agricultural land in the district. Figures 3.1-4 and 3.1-5 show the current land use/land cover and boundary for the Broadview Water District service area.

Originally, the distribution system in Broadview Water District consisted of a single pipeline that connected to the Delta-Mendota Canal and ran two miles to the district boundaries. Six lift pump stations and six booster pumps were later constructed to lift and distribute the water within the district service area. Later, in the 1960s, the distribution system was reconstructed to increase its capacity. Currently, the Broadview Water District's distribution system consists of 30 miles of open unlined canals and laterals, two miles of pipeline, and six pumping stations with a total of 36 pumps. All the water is lifted from the Delta-Mendota Canal into the district's main canal delivery system. The only storage facility in the Broadview Water District is the main canal, which consists of six pumping stations and five ponds. All the laterals from the main canal are gravity-fed. The main canal is automated and all of the laterals have manual gates. All turnouts on the system are metered.

Use of CVP Water

On November 27, 1959, Broadview Water District entered into a long-term contract (Contract 14-006-200-8092) with Reclamation for 16,000 acre-feet of CVP water. In May 1964, after the capacity of the district's distribution system was increased, the 1959 contract was amended. Under the new contract (Contract 14-06-200-8092 Amendatory),

Reclamation would provide 27,000 acre-feet of CVP water to the district. The amended contract expired on February 28, 1995. Since then, a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-8092-IR8) was executed on February 27, 2004, and can remain in effect for two years.

A small portion of the CVP water is used in Broadview Water District is used for M&I purposes (i.e., to provide drinking water in the district). This water is delivered through the San Luis Canal through two turnouts in the Westlands Water District distribution system.

Use of Other Available Water Supplies

CVP water is the only water supply source for the Broadview Water District. There is one groundwater well located in the district, but it is inoperable. The groundwater is unusable because of its relatively high levels of salt and boron.

Operating Rules and Regulations

The district has drainage problems caused by impervious clay layers that restrict the downward movement of shallow groundwater containing salts and boron. As a result, a subsurface drainage system has been installed. The drainage system has 18 miles of open drain channels, 2.1 miles of pipeline, and three lift stations with nine pumps. There are also 25 tile drain systems that are owned by various landowners. Water users recycle their drainage water with surface irrigation water and reapply it to their fields. In addition, the district has historically drained discharge water through the Grassland Water District and into the San Joaquin River. Currently, as part of the GBP, Broadview Water District is required to remove its drainage water from the Grasslands Channels and convey the water through the San Luis Drain and into the San Joaquin River at the same point.[1]

As part of a land management program to reduce drain water and improve wildlife habitat, Broadview Water District is evaluating alternative crop rotation options for reducing volumes of drainage water. As part of the study, drains are being monitored and based on the study results, cropping patterns and irrigation management changes are being imposed. The program has been implemented through the use of a Reclamation grant.

Broadview Water District is actively transferring water to other districts. Because many water users farm in both the Broadview Water District and other districts, it is the district's

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[1] The primary goals of the GBP are to remove the unusable agricultural drainage water from water delivery channels and ditches in the Grassland Water District and to provide an opportunity to collect the drainage water from a large agricultural area and place it in a single conveyance facility for transport to the San Joaquin River.

policy to allow water users to transfer any portion of their allocation to their water accounts in other districts, provided the transfer does not significantly impact Broadview Water District operations.

CENTINELLA WATER DISTRICT'S FACILITIES AND WATER USE

Formed in 1964, Centinella Water District is located on the northern end of the San Luis Reservoir in Merced County and is adjacent to Del Puerto Water District to the north and east. The district is approximately 850 acres in size with 840 irrigated acres. Because of its small size, the district is exempt from Section 3405(e) of the CVPIA, which requires the preparation of a water conservation plan. Figures 3.1-6 and 3.1-7 show the current land use/land cover and boundary for the Centinella Water District service area.

The district receives its CVP supply directly through a turnout on the Delta-Mendota Canal. This district does not have any distribution facilities and does not own any pumps, pipelines, or canals to transport the CVP supply. All turnouts, pumps, pipelines, and canals in the district are privately owned, maintained, and operated. All drainage systems are also privately developed, operated, and maintained by individual landowners.

Use of CVP Water

The district operated under a temporary contract with Reclamation until a permanent cost-of-service type contract was executed. On July 8, 1977, Centinella Water District signed a long-term contract (Contract 7-07-20-W0055) with Reclamation to supply 2,500 acre-feet of CVP water. The contract expired on February 28, 1995. Since then, a series of interim renewal contracts have been executed. The most recent renewal interim contract (Contract 7-07-20-W0055-IR8) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

CVP water is the district's only water supply source.

Operating Rules and Regulations

Because all the distribution and drainage systems are owned, operated, and maintained by individual water users, the district has not instituted a drainage policy. The district, however, maintains a cooperative stance with downslope districts regarding problems arising from tailwater leaving district boundaries and will take necessary actions to remedy such problems.

The district's policy on water transfers is to allow transfers of allocated water supply between parcels of land, either within the district or between districts, when the supply is

associated with lands owned by the same landowner. Therefore, the only water transfers outside the district are transfers from a landowner to itself.

CITY OF TRACY'S FACILITIES AND WATER USE

The city of Tracy is located in the central San Joaquin Valley at the junction of Interstate 5 and Interstate 580, providing fast and easy access to both the San Francisco Bay Area and up and down the Central Valley. Tracy is a rapidly changing community with a population of nearly 48,000. One of seven cities in San Joaquin County, Tracy is also one of the fastest growing cities in the county. Its population is expected to grow to approximately 85,000 by the year 2010. Figures 3.1-8 and 3.1-9 show the current land use/land cover and boundary for the City of Tracy service area.

The City of Tracy receives its CVP supply from a turnout on the Delta-Mendota Canal. Because the CVP water is used for M&I purposes, it must be treated before delivery. The treatment process for the CVP supply consists of chemical oxidation, coagulation, flocculation, filtration, and chlorination. In addition, chloramines (the combination of chlorine and a small amount of ammonia) are used as the residual disinfectant in the water distribution system. The CVP water is transferred by pipeline to the water treatment plant and, after treatment, transferred by pipeline to M&I users.

Use of CVP Water

On July 22, 1974, the City of Tracy signed a long-term contract (Contract 14-06-200-7858A) with Reclamation for 10,000 acre-feet of CVP water. This contract is scheduled to expire in 2008. On February 27, 2004, the City of Tracy, the United States, and the West Side Irrigation District entered into an agreement for an assignment of 2,500 acre-feet of contract supply from the West Side Irrigation District to the City of Tracy. The City of Tracy also retains the option of exercising its right to obtain a future assignment of an additional 2,500 acre-feet of project water now available for delivery to The West Side Irrigation District under the district's existing contract.

Use of Other Available Water Supplies

The City of Tracy's water system includes CVP water from the Delta-Mendota Canal and groundwater pumped from nine groundwater wells located throughout the city. There are no other water supply sources serving the city; however, the City of Tracy has negotiated a permanent transfer of a portion of The West Side Irrigation District's CVP supply to help meet Tracy's growing demand. The West Side Irrigation District has also assigned 5,000 acre-feet per year to the City of Tracy. In addition, the South County Water Supply Program, which is a cooperative effort of the South San Joaquin Irrigation District and the Cities of Manteca, Escalon, Lathrop, and Tracy, has been designed to provide

supplemental water supplies to the cities. Construction of facilities necessary to provide the supplemental supply is currently under way and is scheduled to be completed by the summer of 2005 (South County Water 2004). The Banta-Carbona Irrigation District has transferred a portion of its CVP supplies and has assigned an additional 5,000 acre-feet per year to the City of Tracy.

COEHLO FAMILY TRUST'S FACILITIES AND WATER USE

About 1,128 acres of the Coehlo Family Trust property are currently under contract with Reclamation to receive CVP water. Because of its small size, the trust is exempt from Section 3405(e) of the CVPIA, which requires the preparation of a water conservation plan. The property receives its CVP allocation directly from the Mendota Pool and conveys the water through its own distribution system to the property. Figures 3.1-10 and 3.1-11 show the current land use/land cover and boundary for the Coehlo Family Trust property.

The Coehlo Family Trust signed a long-term contract (Contract 14-06-200-7589A) with Reclamation to supply 3,525 acre-feet of CVP water until December 23, 2003. A binding agreement for early renewal of CVP water was signed on September 30, 1997 (Contract 14-06-200-7859A-BA).[2] The most recent interim renewal contract (Contract 14-06-200-7859-A-IR2) was executed on February 27, 2004, and can remain in effect for two years.

In addition to its CVP supply, the Coehlo Family Trust property has groundwater wells that provide a supplemental supply in dry years. The Coehlo Family Trust also had 5,200 acre-feet of supplemental water and 2,653 acre-feet of Schedule 2 water for water rights.[3] It subsequently assigned 3,120 acre-feet of the supplemental water and 1,321 acre-feet of Schedule 2 water to the CDFG.

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[2] An additional mitigation and restoration payment of 150 percent of the annual payment calculated under the CVPIA is required for long-term contractors whose contracts were in existence on October 30, 1992, but had not been renewed between January 1, 1988, and October 29, 1992. However, since the PEIS was not completed by October 1, 1997, the additional mitigation and restoration payment does not apply to long-term contractors with a contract in existence on the date of CVPIA enactment (October 30, 1992) who enter into a binding agreement with the Secretary prior to October 1, 1997, to renew their contracts immediately upon completion of the PEIS, if such contract has not expired prior to completion of the PEIS.

[3] Schedule 2 water is all water delivered without charge under the authority of Section 14 of the Reclamation Project Act of 1939, as a permanent adjustment and settlement of a district's asserted claims to water in the Fresno Slough tributary to the San Joaquin River in fulfillment of such rights pursuant to Contract No. I7R-1145, "Contract for Purchaser of Miller & Lux Water Rights," dated July 27, 1939.

DEL PUERTO WATER DISTRICT FACILITIES AND WATER USE

Del Puerto Water District was originally organized on March 24, 1947, and included approximately 3,875 acres. The district was reorganized on March 1, 1995, through a formal consolidation with ten other districts.[4] The reorganized Del Puerto Water District is located on both sides of the Delta-Mendota Canal and consists of a narrow strip of land averaging less than two miles in width and stretching 50 miles in length. Del Puerto Water District includes approximately 47,400 acres, of which 45,773 are irrigable acres, located along the west side of Stanislaus, San Joaquin, and Merced Counties. Stanislaus County serves as the principal county for the district. Figures 3.1-12 and 3.1-13 show the current land use/land cover and boundary for the Del Puerto Water District service area.

The district receives its CVP supply directly through turnouts on the Delta-Mendota Canal. This district does not have any distribution facilities and does not own any pumps, pipelines, or canals to transport the CVP supply. All turnouts, pumps, pipelines, and canals in the district are privately owned, maintained, and operated. The district owns and maintains only the water meters.

Use of CVP Water

On June 10, 1953, Del Puerto Water District signed a long-term contract (Contract 14-06-200-922) with Reclamation for 10,000 acre-feet of CVP water. After the 1995 consolidation, the water service contracts of the other ten districts were assigned to Del Puerto Water District and were subsequently renegotiated as a single contract. Under the single contract, Del Puerto received 140,210 acre-feet of CVP water. Since the expiration of those individual contracts, a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-922-IR10) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

Del Puerto Water District has no groundwater wells and does not receive water supplies from any source other than the CVP.

Operating Rules and Regulations

All of the distribution and drainage systems in the Del Puerto Water District are owned, operated, and maintained by individual water users; therefore, the district has not instituted a drainage policy. The district, however, maintains a cooperative stance with downslope

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[4] Districts consolidated to form Del Puerto Water District are Hospital, Kern Canon, Salado, Sunflower, Orestimba, Foothill, Davis, Mustang, Quinto, and Romero Water Districts.

districts regarding problems arising from tailwater leaving district boundaries and will take necessary actions to remedy such problems.

The district's policy on water transfers is to allow transfers of allocated water supply between parcels of land, either within the district or between districts, when the supply is associated with lands owned by the same landowner. Therefore, the only water transfers outside the district are transfers from a landowner to itself.

EAGLE FIELD WATER DISTRICT'S FACILITIES AND WATER USE

Eagle Field Water District is approximately 1,372 acres in size, of which 1,366 acres are irrigable. Because of its small size, the district is exempt from Section 3405(e) of the CVPIA, which requires the preparation of a water conservation plan. The district is located in both Merced and Fresno Counties between the Outside Canal and the Delta-Mendota Canal. Figures 3.1-14 and 3.1-15 show the current land use/land cover and boundary for the Eagle Field Water District service area.

Eagle Field Water District receives its CVP water supply directly from two turnouts on the Delta-Mendota Canal. The district has no additional conveyance facilities.

Use of CVP Water

On April 10, 1958, the district signed a long-term contract (Contract 14-06-200-7754) with Reclamation for 4,550 acre-feet of CVP water. The contract expired on February 25, 1995. Since then, a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-7754-IR8) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

In addition to CVP supply, Eagle Field Water District has groundwater wells that provide a supplemental supply in dry years.

Operating Rules and Regulations

Eagle Field Water District is part of the Panoche Drainage District. The drainage district, which is composed of Panoche, Eagle Field, Oro Loma, and Mercy Springs Water Districts, was formed in the late 1950s to transport subsurface drainage water and tailwater from district lands. Historically, the Panoche Drainage District discharged drainage water through the Grassland Water District and into the San Joaquin River. Currently, the drainage district participates in the GBP and the land within Eagle Field Water District is operated to reduce and manage drainage to meet the load targets for the GBP.

Eagle Field Water District is active in water transfers and in the past has transferred water to other districts including Panoche Water District.

FRESNO SLOUGH WATER DISTRICT'S FACILITIES AND WATER USE

The Fresno Slough Water District is about 1,200 acres in size, of which 805 acres are irrigable. Because of its small size, the district is exempt from Section 3405(e) of the CVPIA, which requires the preparation of a water conservation plan. The district is located in western portion of Fresno County and is adjacent to Tranquillity Irrigation District to the east. Figures 3.1-16 and 3.1-17 show the current land use/land cover and boundary for the Fresno Slough Water District service area.

After the Delta-Mendota Canal releases water into the Mendota Pool, some of the supply then flows from the pool into the Fresno Slough (or Kings River Bypass). The Fresno Slough Water District lifts its allocation of CVP water from the Fresno Slough into its own distribution system, which consists of approximately seven miles of unlined canals and two lift pump locations with two pumps at each lift. Fresno Slough Water District distributes the water to a number of unmetered turnouts.

Use of CVP Water

On July 1, 1955, the Fresno Slough Water District signed a long-term contract (Contract 14-06-200-4019A) with Reclamation for 4,000 acre-feet of water from the Delta-Mendota Canal. The contract expired in 2003. Since then a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-4019-A-IR2) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

In addition to CVP supplies, the district receives 866 acre-feet of Schedule 2 water for a water rights settlement. The district owns a one-tenth ownership interest in a groundwater well. No groundwater recharge program is currently in place and the quality of the groundwater is poor with high salinity.

Operating Rules and Regulations

The district is active in transfers of water both in and out of the district. Typically, any transfers out of the district would first be offered to neighboring Tranquillity Irrigation District. Fresno Slough Water District has also transferred a portion of its CVP contract water to the Westlands Water District in the past.

JAMES IRRIGATION DISTRICT'S FACILITIES AND WATER USE

Formed in February 1920, James Irrigation District is about 41.2 square miles in size. About 17,500 acres are irrigable. The district is located within the central portion of the San Joaquin Valley, about 30 miles southwest of Fresno in Fresno County. Most of the land in the district was part of a land grant received by pioneer Jefferson G. James in 1858. Land in the district is relatively flat and soils range from coarse sands to heavy clays. Soils in the middle and western portions of the district generally have a higher clay content. Figures 3.1-18 and 3.1-19 show the current land use/land cover and boundary for the James Irrigation District service area.

James Irrigation District's distribution system consists of 91.5 miles of unlined canal, 14.3 miles of lined canal, and 6 miles of pipeline. The main canal operates as a lift canal for surface water that is pumped from the Mendota Pool into the Fresno Slough (or Kings River Bypass). A series of booster stations located along the distribution system then feed the various laterals and sublaterals. The entire length of the main canal is unlined. All but three of the 356 turnouts in the district are measured and read daily.

The district also has a regulation reservoir with a capacity of about 100 acre-feet and a storage reservoir with a capacity of about 900 acre-feet. James Irrigation District hopes to use these facilities to increase the amount of Kings River flood release water that is used for groundwater recharge to offset overdraft conditions. However, since the facilities have been in place, no water has been available for groundwater recharge.

Use of CVP Water

James Irrigation District is one of the last contractors to obtain CVP water that has flowed from the Mendota Pool into Fresno Slough (or Kings River Bypass). On December 23, 1963, James Irrigation District entered into a long-term contract (Contract 14-06-200-700-A) with Reclamation for 35,300 acre-feet of CVP water. The contract expired in 2003. Since then a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-700-A-IR2) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

Historically, James Irrigation District has received its water supply from the Kings River through a series of canals built in the late 1800s. However, the Kings River water supply was not reliable, and as one of the last districts along the river, it was also one of the last to receive water. In dry years, little or no water was available. The district also built a canal from the San Joaquin River. San Joaquin River water was also not very reliable and the supply was available only when flows exceeded the needs of other users. After Friant

Dam was completed in 1944, the district began pumping San Joaquin River water directly from the Mendota Pool on an annual basis until August 1 of each year, with no limit on quantity. After the Delta-Mendota Canal was completed in 1951, the CVP supply replaced the district's water supply.

The district has been a member of the Kings River Water Association since 1921. In 1963, James Irrigation District entered into agreements with Reclamation and the Kings River Water Association to establish entitlements to surface water from the San Joaquin and Kings Rivers. As a result, the district received an allocation of riparian water from the San Joaquin River that is delivered without charge as a settlement of the district's water rights claims in Fresno Slough. The amount of water delivered varies, depending on whether the year is normal, wet, or dry. The district also traded all of its allocation of scheduled Kings River water to the Lower Kings River Water Association in exchange for agreed-upon payments to the district. Since these agreements, the district receives Kings River water only when flood releases are made. In the next few years, the district plans to purchase portable lift pumps to deliver Kings River flood releases (when available) to farms east of the district for in-lieu groundwater recharge and to use the regulation and storage reservoirs.

In addition to these surface water sources, groundwater is used as a supplemental supply. All but two wells are district-owned. The district generally uses all available surface water supplies and then pumps groundwater to make up for any shortfall. Groundwater is pumped mostly along the eastern boundary of the district because groundwater in other areas is of poorer quality with high salinity and contamination plumes.

James Irrigation District also receives operational spill water from the Fresno Irrigation District, which is used for agricultural use. In past years, Reclamation has also made surplus water available to the district. This water either is imported from the Delta through the Delta-Mendota Canal or is a San Joaquin River Flood Release (called "Section 215" water by Reclamation). James Irrigation District also receives 9,700 acre-feet of Schedule 2 water for water rights.

Operating Rules and Regulations

Growers in James Irrigation District are permitted to pump tailwater back into district canals, allowing the tailwater to be recycled and reused in the district's system. This activity must be coordinated with the district's responsible ditchtender.

James Irrigation District is also active in water transfers to and from other CVP contractors and other members of the Kings River Water Association. The district, however, has not allowed individual growers to transfer their CVP allocation from land farmed within the

district to land owned by the same individual but farmed outside of the district. The district would generally not approve water transfers that result in an overall loss of water that could have been used within the district.

LAGUNA WATER DISTRICT'S FACILITIES AND WATER USE

Laguna Water District is approximately 417 acres in size, all of which are irrigable, and is located in Fresno County. Because of its small size, the district is exempt from Section 3405(e) of the CVPIA, which requires the preparation of a water conservation plan. Figures 3.1-20 and 3.1-21 show the current land use/land cover and boundary for the Laguna Water District service area.

Laguna Water District has no distribution facilities of its own. Instead, the district has a contract with the Central California Irrigation District for transportation of its CVP water. The Delta-Mendota Canal releases water into the Mendota Pool and water is then transported from the pool to the Laguna Water District through the distribution facilities of the Central California Irrigation District.

Use of CVP Water

On May 26, 1982, the district signed a long-term contract (Contract 2-07-20-W0266) with Reclamation for 800 acre-feet of CVP water. This contract expired on December 31, 1995. Since then, a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 2-07-20-W0266-IR8) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

The district has no water supplies other than the CVP allocation.

TRANQUILLITY PUBLIC UTILITY DISTRICT

On October 11, 1967, Melvin D. and Mardella Hughes entered into a contract with the United States for water service to a tract of approximately 66 acres located near the colony of Tranquillity in Fresno County (Contract 14-06-200-3537A). A binding agreement with the United States for water service and early renewal of the existing contract was signed September 30, 1997. The Tranquillity Public Utility District assumed the contract for Settlement Water (93 acre-feet) and Supplemental Supply (70 acre-feet) of CVP Water from the Mendota Pool on August 29, 2003. Because of its small size, the district is exempt from Section 3405(e) of the CVPIA, which requires the preparation of a water conservation plan. The property, now owned by Tranquillity Public Utility District, lies adjacent to Fresno Slough. Figures 3.1-22 and 3.1-23 show the current land use/land cover and boundary for the Tranquillity Public Utility District.

The CVP water is lifted from the Fresno Slough and Mendota Pool and is distributed to the approximately 32 farmable acres within the District.

Use of CVP Water

Since the expiration of the original contract, which was assumed by Tranquillity Public Utility District in 2003, a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-3537-A-IR2) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

The District has no other source of water supply other than the CVP allocation

MERCY SPRINGS WATER DISTRICT'S FACILITIES AND WATER USE

Mercy Springs Water District is approximately 3,390 acres in size, of which 3,336 acres are irrigable. The district is located in Fresno County and spans the Main Canal, Outside Canal, and the Delta-Mendota Canal. Figures 3.1-24 and 3.1-25 show the current land use/land cover and boundary for the Mercy Springs Water District service area.

The district receives its CVP water directly from a turnout on the Delta-Mendota Canal and has no additional conveyance facilities.

Use of CVP Water

On June 21, 1967, the district signed a long-term contract (Contract 14-06-20-3365A) with Reclamation for 13,300 acre-feet of CVP water. This contract expired on February 28, 1995. Since then, a series of interim renewal contracts have been executed. On May 14, 1999, the district assigned 6,260 acre-feet of its contract water supply to the Pajaro Valley Water Management Agency, Westlands Water District, and Santa Clara Valley Water District, leaving a balance of 7,040 acre-feet of supply subject to this long-term contract. On March 1, 2003, the district assigned an additional 4,198 acre-feet of its contract supply to the Westlands Water District Distribution District No. 2, leaving a balance of 2,842 acre-feet of supply subject to this long-term contract. The most recent interim renewal contract (Contract 14-06-200-3365A-IR8A) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

In addition to its CVP supply, Mercy Springs Water District has groundwater wells that provide a supplemental supply in dry years.

Operating Rules and Regulations

Mercy Springs Water District is part of the Panoche Drainage District. The Panoche Drainage District, which is composed of Panoche, Eagle Field, Oro Loma, and Mercy Springs Water Districts, was formed in the late 1950s to transport subsurface drainage water and tailwater from district lands. Historically, the drainage district discharged drainage water through the Grassland Water District and into the San Joaquin River. Currently, the Panoche Drainage District participates in the GBP and that portion of Mercy Springs Water District that uses CVP water is operated to reduce and manage drainage to meet the load targets for the GBP.

Panoche Drainage District now owns the portion of Mercy Springs Water District from which the CVP water has been assigned and has begun a regional drainage management program. With the assistance of Reclamation grants, Panoche Drainage District is developing portions of the Mercy Springs Water District into alternative land management by changing historical cropping rotations. Portions of Mercy Springs Water District will be planted to trees or alfalfa, bermuda grass, and other salt-tolerant grasses that will be irrigated with well water and subsurface drainage water from Panoche Drainage District and other areas served by the GBP. The area will be used to establish the sustainability and feasibility of salt-tolerant grass for the continuous use of blended subsurface drainage water.

Historically, Mercy Springs Water District has been active in water transfers.

ORO LOMA WATER DISTRICT'S FACILITIES AND WATER USE

Oro Loma Water District is located in Fresno County between the Outside Canal and the Delta-Mendota Canal. It contains 1,080 irrigable acres. Because of its small size, the district is exempt from Section 3405(e) of the CVPIA, which requires the preparation of a water conservation plan. Figures 3.1-26 and 3.1-27 show the current land use/land cover and boundary for the Oro Loma Water District service area.

Oro Loma Water District receives its CVP water directly from two turnouts on the Delta-Mendota Canal and has no additional conveyance or distribution facilities.

Use of CVP Water

On April 7, 1959, the district signed a long-term contract (Contract 14-06-200-7823) with Reclamation for 4,600 acre-feet of CVP water. This contract expired on February 28, 1995. Since then, a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-7823-IR8) was executed on February 7, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

In addition to CVP supply, Oro Loma Water District has groundwater wells that provide a supplemental supply in dry years.

Operating Rules and Regulations

Oro Loma Water District is part of the Panoche Drainage District. The drainage district, which is composed of Panoche, Eagle Field, Oro Loma, and Mercy Springs Water Districts, was formed in the late 1950s to transport subsurface drainage water and tailwater from district lands. Historically, the Panoche Drainage District discharged drainage water through the Grassland Water District and into the San Joaquin River. Currently, the Panoche Drainage District participates in the GBP, and the land within Oro Loma Water District is operated to reduce and manage drainage to meet the load targets for the GBP.

Oro Loma Water District is active in water transfers and in past years has transferred water to other districts, including Panoche Water District.

PATTERSON IRRIGATION DISTRICT'S FACILITIES AND WATER USE

The Patterson Water District was formed in November 1955 at an original size of approximately 15,000 acres. After a series of exclusions, the size of the district in 1996 was 13,543.7 acres, all of which is irrigated. After being formed, Patterson Water District later changed to Patterson Irrigation District[5]. Patterson Irrigation District is located in Stanislaus County and is adjacent to West Stanislaus Irrigation District to the northwest and Del Puerto Water District to the southwest. The district includes 425 landowners and over 600 water users. Figures 3.1-28 and 3.1-29 show the current land use/land cover and boundary for the Patterson Irrigation District service area.

The Patterson Irrigation District distribution system consists of 3.8 miles of unlined canal, 51.8 miles of concrete-lined canal, and 84 miles of pipeline. The main canal flows from east to west and the main laterals that come off the main canal and flow to the north and south. The district also has a series of lift pump stations, four reservoirs that are located off the main canal, and two smaller reservoirs located off the main laterals. Originally designed as settling basins to settle out silt from San Joaquin River source water, the reservoirs have negligible storage capacity.

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[5] The primary differences between irrigation and water districts are the range of purposes underlying their formation, eligible lands, and voting systems.

Use of CVP Water

On December 18, 1967, Patterson Irrigation District entered into a long-term contract (Contract 14-06-200-3598A) with Reclamation for 16,500 acre-feet of CVP water. This contract expired on February 28, 1995. Since then, a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-3598A-IR8) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

In addition to its CVP supply, Patterson Irrigation District receives local surface water from the San Joaquin River and pumps groundwater. The district's San Joaquin River and groundwater supply sources have high concentrations of salt that limit cropping patterns and affect water quality conditions and crop yields. Salinity conditions in the river have been well documented by the RWQCB. The district also receives an additional 6,000 acre-feet of replacement water from Reclamation because CVP water allocations have reduced San Joaquin River flows.

Operating Rules and Regulations

Patterson Irrigation District has aggressively pursued an automation and modernization plan since 1997 that is expected to continue in the future. Modernization efforts include replacing less efficient pumps and motors and constructing Replogle flumes for accurate flow measurement and long-crested weirs for water level control. As they are implemented, these efforts will continue to increase the efficiency of the district's system.

Through a funding program provided by Reclamation, Patterson Irrigation District is actively working with the Irrigation Training and Research Center at California Polytechnic State University on developing a canal automation system that would include flowmeters and volumetric options for measuring flow rate.

Any tailwater or drainage water return flows in the district either percolate into the groundwater aquifer or end up in the San Joaquin River via direct drain facilities. A small quantity also enters Del Puerto Creek. Most of the tailwater reaching the San Joaquin River is reused. Approximately one-half of the return flows enter the San Joaquin River upstream of the district's diversion and, therefore, are available for reuse by the district. The other one-half enters the San Joaquin River downstream of the district's diversion and is available to other downstream users. The reuse of return flows either within the district or by other users promotes good water management by conserving water.

Patterson Irrigation District is active in water transfers both into and out of the district. In recent years, water has been transferred to West Stanislaus Irrigation District and Westlands Water District.

PLAIN VIEW WATER DISTRICT'S FACILITIES AND WATER USE

Plain View Water District was formed on January 15, 1951. The district is located in San Joaquin County primarily along the eastern side of Interstate 5 near the city of Tracy. The district was originally 6,000 acres in size with 5,316 irrigated acres and is currently 6,422 acres in size with 1,851 irrigated acres. Figures 3.1-30 and 3.1-31 show the current land use/land cover and boundary for the Plain View Water District service area.

Plain View Water District receives its CVP water directly from the Delta-Mendota Canal through 28 turnouts. The district's distribution system consists of 9.2 miles of pipeline. The system is an entirely enclosed pipeline system constructed of reinforced concrete pipe and polyvinyl chloride pipe that was installed to replace the original Techite pipe. There are no open ditches or canals in the system. Propeller meters measure the flow volume to each point of delivery.

Use of CVP Water

On May 22, 1953, Plain View Water District entered into a long-term contract (Contract 14-06-200-785) with Reclamation for 17,250 acre-feet of CVP water. In 1974, the district annexed additional land and the contract was amended on July 25, 1975. Under the amendment, Reclamation provided 20,600 acre-feet of CVP water to the district. The long-term contract expired on February 28, 1994. Since then, a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-785-IR10 was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

Plain View Water District currently has no water supply source other than its CVP supply.

Operating Rules and Regulations

There is no subsurface drainage in Plain View Water District. The drainage is either recirculated on-farm or discharged to either the Delta-Mendota Canal or The West Side Irrigation District for reuse.

Plain View Water District is active in transferring water both to and from other contractors.

RECLAMATION DISTRICT #1606'S FACILITIES AND WATER USE

Reclamation District #1606 is approximately 170 acres in size. Because of its small size, the district is exempt from Section 3405(e) of the CVPIA, which requires the preparation of a water conservation plan. The district is located in Fresno County and is adjacent to James Irrigation District. It was originally formed for flood protection along the Kings River. In 1914, Reclamation District #1606 constructed two channels along its neighboring district, James Irrigation District, to make a continuous connection from the Kings River to the San Joaquin River, to pass floodwater through the area, and to prevent flooding of the two districts. Figures 3.1-32 and 3.1-33 show the current land use/land covers and boundary for the Reclamation District #1606 service area.

The Delta-Mendota Canal releases water into the Mendota Pool, and some of this supply then flows into the Fresno Slough (or Kings River Bypass). Reclamation District #1606 pulls its CVP supply from the Fresno Slough using two lift pumps.

Use of CVP Water

On April 12, 1968, Reclamation District #1606 signed a long-term contract (Contract 14-06-200-3802A) with Reclamation for 228 acre-feet of CVP water until December 23, 2003. A binding agreement for an early renewal contract (Contract 14-06-200-3802A-BA) was executed with Reclamation on September 30, 1997. The most recent interim renewal contract (Contract 14-06-200-3802-A-IR2) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

Reclamation District #1606 also receives 342 acre-feet of Schedule 2 water for water rights. The district has no other water supply sources.

THE WEST SIDE IRRIGATION DISTRICT'S FACILITIES AND WATER USE

The West Side Irrigation District was organized on October 12, 1915, and made its first water deliveries in 1919. The district is located in San Joaquin County and is divided in half by the City of Tracy. The district was originally about 12,160 acres in size with 10,800 irrigated acres and is currently 9,436 acres in size with 6,083 irrigated acres. Figures 3.1-34 and 3.1-35 show the current land use/land cover and boundary types for the West Side Irrigation District service area.

Current West Side Irrigation District policy requires water users requesting M&I water service and annexation into the City of Tracy to detach from the district and to continue to provide agricultural water to the property until it is developed for urban uses.

CVP water is diverted from the Delta-Mendota Canal through two turnouts. One turnout ties into the district's upper main canal through a 1.8-mile-long concrete pipe and the second turnout ties into the district's upper main canal through a 1.4-mile-long concrete pipe. Both are gravity flow systems. The upper main canal is nine miles in length (including one mile of concrete-lined canal, 3.5 miles of pipeline and 4.5 miles of unlined canal) and includes 11 miles of concrete piped laterals. The lower main canal is also nine miles in length (including 1.5 miles of concrete-lined canal, 3 miles of pipeline, and 5.5 miles of unlined canal) and includes 13 miles of concrete piped laterals. All of the gates in the system are manual and all flows in the district's distribution system are measured regularly.

Use of CVP Water

In June 1977, The West Side Irrigation District entered into a long-term contract (Contract 7-07-20-W-0045) with Reclamation for 7,500 acre-feet of CVP supply. This new contract expired on February 28, 1995. Since then, a series of interim renewal contracts have been executed. On February 27, 2004, the district, the United States, and the City of Tracy entered into an agreement for an assignment of 2,500 acre-feet of its contract supply to the City of Tracy, leaving a balance of 5,000 acre-feet subject to this long-term contract. The most recent interim contract (Contract 7-07-20-W0045-IR8) was executed on February 27, 2004, and can remain in effect for two years. The district's contract also allows the City of Tracy to exercise its right to obtain a future assignment of an additional 2,500 acre-feet of project water available to the district under the existing contract, which, if exercised, may reduce the contract balance accordingly. The balance of this long-term contract for The West Side Irrigation District has not been reduced to account for this potential future assignment to the City of Tracy.

Use of Other Available Water Supplies

The district has received water from the San Joaquin River from water rights dating back to 1916. San Joaquin River water is diverted through a dredged unlined intake canal and flows by gravity into the district's pumping facilities. The water is then lifted through two pipelines; one terminates at the beginning of the Lower Main Canal and the other discharges into the Upper Main Canal and mixes with CVP water. The water then flows by gravity, similar to the CVP supply, and is delivered to users. San Joaquin River water is used as the district's main supply, with CVP water supplies used as a supplement during peak periods or when needed to improve water quality.

There are no groundwater or private irrigation wells within the district. The district has no water supplies other than CVP and San Joaquin River water.

Operating Rules and Regulations

The West Side Irrigation District has a tailwater return flow collection (surface drainage) system to provide drainage to all the lands within the district. No drainage (or tailwater) leaves The West Side Irrigation District boundaries. The district has constructed facilities to collect drainage water and return it to the district's intake canals, where it is combined with San Joaquin River water and pumped back into the conveyance facilities for reuse. Minor quantities of tailwater from Plain View Water District and Byron-Bethany Irrigation District may be received into district facilities.

The West Side Irrigation District is active in water transfers. Transferred water has been received water from other districts, including the Banta-Carbona Irrigation District, and water has been transferred to other districts, including Plain View Water District. The West Side Irrigation District has also transferred a portion of its CVP water supply and has assigned 5,000 acre-feet per year to the City of Tracy.

TRANQUILLITY IRRIGATION DISTRICT'S FACILITIES AND WATER USE

Formed in 1918, Tranquillity Irrigation District is approximately 10,750 acres in size, of which about 9,700 are irrigated. The district is located in the west central portion of Fresno County; its principal community is the unincorporated town of Tranquillity. The district does not currently have a water conservation plan as required by Section 3405(e) of the CVPIA. The district is preparing a water conservation plan, which must be approved by Reclamation before the district can renew its long-term contract.

The Delta-Mendota Canal releases water into the Mendota Pool, and some of this supply then flows into the Fresno Slough (or Kings River Bypass). The district then lifts its allocation of CVP water from the Fresno Slough into its own distribution system, which consists of 42 miles of unlined canal, 10 miles of pipelines, two major lift pump stations, and a series of lifts. The entire system is automated and metered on all incoming supplies and individual turnouts. The district is constantly seeking ways to upgrade and improve its distribution system, including low interest loans and bond money, including water conservation bond money to convert open canals in the district to pipelines. Figures 3.1-36 and 3.1-37 show the current land use/land cover and boundary for the Tranquillity Irrigation District service area.

Use of CVP Water

On December 23, 1963, Tranquillity Irrigation District signed a long-term contract (Contract 14-06-200-701A) with Reclamation for 13,800 acre-feet of water until December 23, 2003. A binding agreement for an early renewal of CVP water (Contract 14-06-200-701-A-BA) was signed on September 30, 1997. The most recent

interim renewal contract (Contract 14-06-200-701-A-IR2) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

Tranquillity Irrigation District has six groundwater wells that are used as a backup supply during periods of high demand. The district also maintains two deep groundwater wells for the domestic water system serving the community of Tranquillity. No individual landowners own or operate any deep groundwater wells. The district has riparian rights to water from both the Kings and San Joaquin Rivers. However, because of its location, the riparian supplies are not very reliable. Therefore, in 1963, the district entered into agreements with Reclamation and the Kings River Water Association to establish entitlements to surface water from the Kings and San Joaquin Rivers. As a result, the district receives an allocation of the up to 20,200 acre-feet of CVP water that is delivered without charge as a settlement of the district's water rights claims to water in the Fresno Slough tributary to the San Joaquin River. The district traded all of its allocation of scheduled Kings River water to the Lower River Users of the Kings River Water Association in exchange for agreed-upon payments, which the district uses to pay for the CVP contract discussed under "Use of CVP Water" above.

Operating Rules and Regulations

District policy allows transfers both into and out of the district. Under this policy, the district has historically engaged in transfers both in and out with other CVP contractors, including James Irrigation District, Westlands Water District, San Luis Water District, Panoche Water District, the Coehlo Family Trust (also known as the Traction Ranch Water District), and Fresno Slough Water District. It has also participated in other transfer activities including water purchased from the State Drought Water Bank.

WEST STANISLAUS WATER DISTRICT'S FACILITIES AND WATER USE

West Stanislaus Irrigation District was formed on May 20, 1920, and has been in continuous operation since. Located in portions of both Stanislaus and San Joaquin Counties, the district overlies a portion of the San Joaquin Valley groundwater basin, in the northern portion of the Delta-Mendota Basin, and the southern portion of the Tracy Basin, which is drained by the San Joaquin River. The first water deliveries were made in 1929. The current size of the district is 24,800 acres, of which 19,762 acres are irrigated. The district is adjacent to Banta-Carbona Irrigation District to the north, Patterson Irrigation District to the south, and Del Puerto Water District to the west. Figures 3.1-38 and 3.1-39 show the current land use/land cover and boundary for the West Stanislaus Water District service area.

The West Stanislaus Irrigation District distribution system consists of a three-mile-long, concrete-lined main canal and 84 miles of laterals and sublaterals that are either canals or pipelines. Sixty-eight of these 84 miles are either concrete-lined canals or concrete pipe. The main canal carries water supplied by six pumping plants. The district receives water from the Delta-Mendota Canal through two diversion points.

The district has a continuous monitoring system to accurately measure water diverted into the laterals. The water measurements are taken three times daily at the water user's turnouts. Control structures in the laterals control the level of water and regulate the flow.

CVP Water Supply

On July 14, 1953, West Stanislaus Irrigation District signed a long-term contract (Contract 14-06-200-1072) with Reclamation for 20,000 acre-feet of CVP water. The contract amount was increased to 50,000 acre-feet in 1976. The contract expired on February 28, 1994. Since then, a series of interim renewal contracts have been executed. The most recent interim renewal contract (Contract 14-06-200-1072-IR10) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

Since 1929, West Stanislaus Irrigation District has had the right to divert water from the San Joaquin River. However, after construction of Friant Dam and the diversion of river water to the southern part of the valley, the quantity available to the district became inadequate and the quality has continued to degrade and become more saline. The district also uses four groundwater wells, drilled in 1977, as a supplemental water source during peak demands. However, use of these wells is limited because of high pumping costs and water quality concerns. Some landowners within West Stanislaus Irrigation District own private groundwater wells to service their properties.

Operating Rules and Regulations

West Stanislaus Irrigation District has a surface drainage system to collect tailwater. All of the surface drainage eventually finds its way to the San Joaquin River. The water that flows in the natural channels goes directly to the river and the other facilities discharge onto riparian land adjacent to the river, which enhances the riparian habitat.

West Stanislaus Irrigation District allows water transfers into and out of the district.

WIDREN WATER DISTRICT'S FACILITIES AND WATER USE

Widren Water District is approximately 883 acres in size and is located in Fresno County on the Delta-Mendota Canal. Because of its small size, the district is exempt from

Section 3405(e) of the CVPIA, which requires the preparation of a water conservation plan. Figures 3.1-40 and 3.1-41 show the current land use/land cover and boundary for the Widren Water District service area.

The district has one turnout on the Delta-Mendota Canal and no other improvements.

Use of CVP Water

On September 25, 1959, the district signed a long-term contract (Contract 14-06-200-8018) with Reclamation for 2,990 acre-feet of CVP water. Since the contract expired on February 28, 1995, Widren Water District has been receiving CVP water under an interim renewal contract with Reclamation. The most recent interim renewal contract (Contract 14-06-200-8018-IR8) was executed on February 27, 2004, and can remain in effect for two years.

Use of Other Available Water Supplies

The district has no water supplies other than its CVP allocation.

Operating Rules and Regulations

Widren Water District has been draining discharge water (or tailwater) through the Grassland Water District and into the San Joaquin River. Currently, as part of the GBP, the Widren Water District is required to remove its drainage water from the Grasslands Channels and convey the water through the San Luis Drain and into the San Joaquin River at the same point. The district is an active participant in water transfers and has transferred water to Westlands Water District in past years.

INTERPRETATION OF FIGURES 3.1-2 THROUGH 3.1-41

The maps were generated in ArcMap, using the contractor boundaries provided by contractor and the consolidated place of use boundaries. The contractors' service areas are the areas within the consolidated place of use. An intersect of the district-provided boundaries and consolidated place of use boundaries was done to determine the service areas.