

**DELTA-MENDOTA CANAL UNIT**  

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**ENVIRONMENTAL ASSESSMENT**  
**LONG-TERM CONTRACT RENEWAL**

**Chapter 2**  
**Description of Alternatives**

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February 2005

## **CHAPTER 2**

### **DESCRIPTION OF ALTERNATIVES**

This chapter summarizes the long-term water service contract negotiations process and describes the alternatives considered in this EA.

#### **LONG-TERM WATER SERVICE CONTRACT NEGOTIATION PROCESS**

The CVPIA states that the Secretary shall, upon request, renew any long-term irrigation repayment or water service contract for the delivery of CVP water for a 25-year period and may renew such contracts for successive periods of up to 25 years each. Consistent with the Act of June 21, 1963 Act, M&I contracts shall be renewed for successive periods up to 40 years, each under mutually agreeable terms and conditions. The CVPIA also states that no renewals shall be authorized until appropriate environmental review, including the CVPIA PEIS, has been completed. The CVPIA PEIS provided a programmatic environmental analysis and identified the need for site-specific environmental documents for the long-term contract renewal process.

The CVPIA also states that contracts expiring before the CVPIA PEIS has been completed may be renewed for interim periods. The interim renewal contracts reflect current Reclamation law, including modifications resulting from the Reclamation Reform Act and applicable CVPIA requirements. The initial interim contract renewals were negotiated in 1994 with subsequent renewals for periods of two years or less to provide continued water service. Many of the provisions from the interim contracts were assumed to be part of the contract renewal provisions in the description of the PEIS Preferred Alternative.

In 1998, the long-term water service contract renewal process was initiated. Reclamation reviewed the interim contract provisions that were consistent with Reclamation law and other requirements, comments from the Draft CVPIA PEIS, and comments obtained during the interim contract renewal process. Reclamation proposed that the overall provisions of the long-term contract would be negotiated with representatives of all CVP water service contractors. Following the acceptance of the CVP-wide provisions, Reclamation proposed that division-specific provisions and, finally, contractor-specific provisions would be negotiated.

Correspondingly, division-specific and contractor-specific contract provisions are being negotiated as part of the renewal of long-term water service contracts for the DMC Unit. Negotiations between Reclamation and the DMC Unit contractors have been completed. Table 2-1 provides a summary and comparison of the contract provisions for the DMC Unit contractors that is current as of the time of the writing of this EA.

## **TERMS OF EXPIRING CONTRACTS**

All of the DMC Unit contractors have water service and repayment contracts with Reclamation. The long-term contracts were entered into between the early 1950s and the late 1960s. Temporary project service had often been provided before the first long-term water service contracts were signed. The first group of long-term water service contracts in the DMC Unit expired February 28, 1994, with the other contracts remaining in effect until December 31, 2003, with the exception of the contract for the City of Tracy, which will expire in 2008. Expired long-term contracts in the DMC Unit have been extended through a series of interim renewal contracts. Information on the quantity and use of the CVP supply is included in Table 2-2.

## **ISSUES CONSIDERED AS PART OF LONG-TERM CONTRACT RENEWALS**

The long-term water service contract renewal process addresses several other issues in addition to the contract provisions as described in this section.

### **WATER NEEDS ASSESSMENTS**

The water rights granted to the CVP by the State Board require the federal government to determine whether CVP water is being applied to beneficial use. The Reclamation Act of 1902 states that beneficial use is the measure of an entity's right of water; thus state law is not the only law requiring that water be beneficially used. To this end, a needs assessment methodology was developed, specifically for the long-term contract renewal analysis, to determine if the contractors could use their full contract amount reasonably and beneficially. This assessment was computed for certain contractors within the DMC Unit using a multiple-step approach. First, the existing water demand for the contractor was calculated, based on historic water uses. Crop acreages, cropping patterns, crop water needs, effective precipitation, and conveyance loss information provided by each contractor were reviewed for agricultural water use. Residential, commercial, industrial, institutional, recreational, and environmental uses, along with landscape coefficients, system losses, and landscape acreage information provided by each contractor, were reviewed for M&I water use. Second, future changes in water demands based upon crops,

**Table 2-1  
Comparison of Contract Provisions Considered in Alternatives**

<b>Provision</b>	<b>No-Action Alternative Based on PEIS and Interim Contracts</b>	<b>Alternative 1 Based on April 2000 Proposal</b>	<b>Alternative 2 Based on November 1999 Proposal</b>	<b>Preferred Alternative</b>
Explanatory Recitals	Assumes water rights held by CVP from the State Board for use by water service contractors under CVP policies	Assumes CVP Water Right as being held in trust for project beneficiaries that may become the owners of the perpetual right	Same as No-Action Alternative	Same as No-Action Alternative
	Assumes that CVP is a significant part of the urban and agricultural water supply of users	Assumes CVP as a significant, essential, and irreplaceable part of the urban and agricultural water supply of users	Same as No-Action Alternative	Assumes CVP has been relied upon and considered essential by contractors
	Assumes increased use of water rights, need to meet water quality standards and fish protection measures, and other measures constrained use of CVP	Assumes that CVPIA impaired ability of CVP to deliver water	Same as No-Action Alternative	No recital concerning this issue
	Assumes the need for the 3408(j) study	Assumes implementation of yield increase projects per 3408(j) study	Same as No-Action Alternative	Assumes Secretary, through coordination, cooperation, and partnership, will pursue measures to improve water supply
	Assumes that loss of water supply reliability would have impact on socioeconomic conditions and change land use	Assumes that loss of water supply reliability would have significant adverse socioeconomic and environmental impacts in CVP service area	Same as No-Action Alternative	Same as No-Action Alternative
<b>Definitions</b>				
Base Supply	Not previously defined	Not previously defined	Not previously defined	Quantity of Project Water designated in contracts as the amount determined from historic deliveries and is considered relatively reliable in normal or wet years
Charges	Charges defined as payments required in addition to Rates	Assumes rewording of definition of Charges to exclude both Rates and Tiered Pricing Increments	Same as No-Action Alternative	Same as Alternative 1

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Comparison of Contract Provisions Considered in Alternatives**

<b>Provision</b>	<b>No-Action Alternative Based on PEIS and Interim Contracts</b>	<b>Alternative 1 Based on April 2000 Proposal</b>	<b>Alternative 2 Based on November 1999 Proposal</b>	<b>Preferred Alternative</b>
Category 1 and Category 2	Tiered Pricing as in PEIS	Not included	Tiered Pricing for Categories 1 and 2	Same as Alternative 1
Contract Total	Contract Total described as Total Contract	Same as No-Action Alternative	Described as basis for Category 1 to calculate Tiered Pricing	Same as No-Action Alternative
Landholder	Landholder described in existing Reclamation Law	Assumes rewording to specifically define Landholder with respect to ownership, leases, and operations	Assumes rewording to specifically define Landholder with respect to ownership and leases	Same as No-Action Alternative
Supplemental Supply	Not previously defined	Not previously defined	Not previously defined	Quantity of Project Water that is in addition to and less reliable than the Base Supply
M&I water	Assumes rewording to provide water for irrigation of land in units less than or equal to five acres as M&I water unless Contracting Officer is satisfied use is irrigation	M&I water described for irrigation of land in units less than or equal to 2 acres	Same as No-Action Alternative	Same as No-Action Alternative
Terms of contract—right to use contract	Assumes that contracts may be renewed	States that contract shall be renewed	Same as No-Action Alternative	Assumes contracts will be renewed, subject to conditions for agriculture and unconditioned for M&I
	Assumes convertibility of contract to a 9(d) contract same as existing contracts	Includes conditions that are related to negotiations of the terms and costs associated with conversion to a 9(d) contract	Same as No-Action Alternative	Sets December 31, 2024, as date on which determination on conversion may be made upon mutually agreeable terms
Water to be made available and delivered to the contractor	Assumes water availability in accordance with existing conditions	Similar to No-Action Alternative	Actual water availability in a year is unaffected by Categories 1 and 2	Similar to No-Action Alternative
	Assumes compliance with Biological Opinions and other environmental documents for contracting	Not included	Same as No-Action Alternative	Similar to No-Action Alternative. Requires contractor to be within legal authority to implement

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	Assumes that current operating policies strive to minimize impacts to CVP water users	Assumes that CVP operations will be conducted in a manner to minimize shortages and studies to increase yield shall be completed with necessary authorizations	Same as No-Action Alternative	Same as No-Action Alternative
Time for delivery of water	Assumes methods for determining timing of deliveries as in existing contracts	Assumes minor changes related to timing of submittal of schedule	Same as No-Action Alternative	Same as No-Action Alternative
Point of diversion and responsibility for distribution of water	Assumes methods for determining point of diversion as in existing contracts	Assumes minor changes related to reporting	Same as No-Action Alternative	Same as No-Action Alternative
Measurement of water within district	Assumes measurement for each turnout or connection for facilities that are used to deliver CVP water as well as other water supplies	Assumes measurement at delivery points	Assumes similar actions in No-Action Alternative but applies to all water supplies	Same as Alternative 2
Rates and method of payment for water	Assumes Tiered Pricing is total water quantity; assumes advanced payment for rates for two months	Assumes Tiered Pricing is total water quantity; assumes advanced payment for rates for one month	Assumes Tiered Pricing is total water quantity; assumes advanced payment for rates for six months	Same as No-Action Alternative CVP-wide.
Non-interest-bearing operation and maintenance deficits	Assumes language from existing contracts	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Sales, transfers, or exchanges of water	Assumes continuation of transfers with the rate for transferred water being the higher of the seller's or purchaser's CVP cost-of-service rate	Assumes continuation of transfers with the rate for transferred water being the purchaser's CVP cost-of-service rate	Same as No-Action Alternative	Assumes continuation of transfers with rate for transferred water being transferor's rate adjusted for additional or reduced costs related to transfer and adjusted to remove any ability to pay relief
Application of payments and adjustments	Assumes payments will be applied as in existing contracts	Assumes minor changes associated with methods described for overpayment	Same as No-Action Alternative	Similar to Alternative 1, but requires \$1,000 or greater overpayment for refund

**Table 2-1  
Comparison of Contract Provisions Considered in Alternatives**

<b>Provision</b>	<b>No-Action Alternative Based on PEIS and Interim Contracts</b>	<b>Alternative 1 Based on April 2000 Proposal</b>	<b>Alternative 2 Based on November 1999 Proposal</b>	<b>Preferred Alternative</b>
Temporary reduction—return flows	Assumes that current operating policies strive to minimize impacts to CVP water users	Assumes minor changes associated with methods described for discontinuance or reduction of payment obligations	Same as No-Action Alternative	Same as No-Action Alternative
Constraints on availability of project water	Assumes that current operating policies strive to minimize impacts to CVP water users	Assumes Contractors do not consent to future Congressional enactments which may impact water supply reliability	Same as No-Action Alternative	Same as No-Action Alternative
Unavoidable groundwater percolation	Assumes that some of applied CVP water will percolate to groundwater	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Rules and regulations	Assumes that CVP will operate in accordance with then-existing rules	Assumes minor changes with right to not concur with future enactments retained by Contractors	Same as No-Action Alternative	Same as No-Action Alternative
Water and air pollution control	Assumes that CVP will operate in accordance with then-existing rules	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Quality of water	Assumes that CVP will operate in accordance with existing rules without obligation to operate toward water quality goals	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Water acquired by the contractor other than from the United States	Assumes that CVP will operate in accordance with existing rules	Assumes changes associated with payment following repayment of funds	Same as No-Action Alternative	Same as No-Action Alternative
Opinions and determinations	PEIS recognizes that CVP will operate in accordance with existing rules	Assumes minor changes with respect to references to the right to seek relief	Same as No-Action Alternative	Similar to Alternative 1
Coordination and cooperation	Not included	Assumes that coordination and cooperation between CVP operations and users should be implemented and CVP users should participate in CVP operational decisions	Not included	Similar to Alternative 1, except parties retain exclusive decision-making authority

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Charges for delinquent payments	Assumes that CVP will operate in accordance with existing rules	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Equal opportunity	Assumes that CVP will operate in accordance with existing rules	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
General obligation	Assumes that CVP will operate in accordance with existing rules	Similar to No-Action Alternative	Same as No-Action Alternative	Similar to Alternative 1; assumes no requirement for contractor to levy in advance
Compliance with civil rights laws and regulations	Assumes that CVP will operate in accordance with existing rules	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Privacy act compliance	Assumes that CVP will operate in accordance with existing rules	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Contractor to pay certain miscellaneous costs	Assumes that CVP will operate in accordance with existing rules	Similar to No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Water conservation	Assumes compliance with conservation programs established by Reclamation and the State of California	Assumes conditions similar to No-Action Alternative with the ability to use State of California standards, which may or may not be identical to Reclamation's requirements	Same as No-Action Alternative	Same as No-Action Alternative
Existing or acquired water or water rights	Assumes that CVP will operate in accordance with existing rules	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Operation and maintenance by non-federal entity	Assumes that CVP will operate in accordance with existing rules and no additional changes to operation responsibilities under this alternative	Assumes minor changes to language that would allow subsequent modification of operational responsibilities	Assumes minor changes to language that would allow subsequent modification of operational responsibilities	Same as Alternative 2
Contingent on appropriation or allotment of funds	Assumes that CVP will operate in accordance with existing rules	Assumes minor changes to language	Same as No-Action Alternative	Same as No-Action Alternative

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Comparison of Contract Provisions Considered in Alternatives**

<b>Provision</b>	<b>No-Action Alternative Based on PEIS and Interim Contracts</b>	<b>Alternative 1 Based on April 2000 Proposal</b>	<b>Alternative 2 Based on November 1999 Proposal</b>	<b>Preferred Alternative</b>
Books, records, and reports	Assumes that CVP will operate in accordance with existing rules	Assumes changes for record keeping for both CVP operations and CVP users	Same as No-Action Alternative	Similar to Alternative 1
Assignment limited	Assumes that CVP will operate in accordance with existing rules	Assumes changes to facilitate assignments	Same as No-Action Alternative	Similar to Alternative 1
Severability	Assumes that CVP will operate in accordance with existing rules	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Resolution of disputes	Not included	Assumes a Dispute Resolution Process	Not included	Similar to Alternative 1
Officials not to benefit	Assumes that CVP will operate in accordance with existing rules	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Changes in contractor's service area	Assumes no change in CVP water service areas absent Contracting Officer consent	Assumes changes to limit rationale used for non-consent and sets time limit for assumed consent.	Same as No-Action Alternative	Similar to Alternative 1; however, no time limit for assumed consent
Notices	Assumes that CVP will operate in accordance with existing rules	Same as No-Action Alternative	Same as No-Action Alternative	Same as No-Action Alternative
Confirmation of contract	Assumes Court confirmation of contract	Not included; assumption is Court confirmation not required	Same as No-Action Alternative	Similar to Alternative 2; however, provision that contract is not binding until court confirms is deleted

**Table 2-2  
CVP Water Service Contract Amounts and Service Areas for Contractors  
in the Delta-Mendota Canal Unit**

Contractor	Water Service		Contract Term (years)
	Contract Amount (acre-feet)	Primary Contract Use	
Banta-Carbona Irrigation District	20,000	Agriculture	25
Broadview Water District	27,000	Agriculture	25
Centinella Water District	2,500	Agriculture	25
City of Tracy	20,000	M&I	40
Coehlo Family Trust	2,080	Agriculture	25
Del Puerto Water District	140,210	Agriculture	25
Eagle Field Water District	4,550	Agriculture	25
Fresno Slough Water District	4,000	Agriculture	25
James Irrigation District	35,300	Agriculture	25
Laguna Water District	800	Agriculture	25
Tranquillity Public Utilities District	70	Agriculture	25
Mercy Springs Water District	7,040	Agriculture	25
Oro Loma Water District	4,600	Agriculture	25
Patterson Irrigation District	16,500	Agriculture	25
Plain View Water District	20,600	Agriculture	25
Reclamation District #1606	228	Agriculture	25
The West Side Irrigation District	2,500	Agriculture	25
Tranquillity Irrigation District	13,800	Agriculture	25
West Stanislaus Water District	50,000	Agriculture	25
Widren Water District	2,990	Agriculture	25

M&I expansion, and anticipated changes in efficiencies were reviewed. Third, current and future water supplies, including groundwater and other surface water supplies, were identified for each contractor. The initial calculation of CVP water needs was limited by the assumption that other (non-federal) water supplies would be used first, and groundwater pumping would not exceed the safe yield of the aquifer. Reclamation did not include any deep percolation from fields as recharge. In addition, the actual water needs were calculated at each division or unit level to allow for annual intraregional transfers.

The beneficial and efficient future water demands identified for each contractor were compared to available non-CVP water supplies to determine the need for CVP water. If the negative amount (unmet demand) is within 10 percent of their total supply for contracts greater than 15,000 acre-feet per year, or within 25 percent for contracts less than or equal to 15,000 acre-feet per year, the test of full future need of the water supplies under the settlement contract is deemed to have been met. Because the CVP was initially established as a supplemental water supply for areas with inadequate supplies, the needs for most contractors were at least equal to the CVP water service contract and frequently exceeded

the previous contract amount. Increased total contract amounts were not included in the needs assessment because the CVPIA stated that Reclamation could not increase contract supply quantities.

Water needs assessments were completed for those contractors who had more than 2,000 acres of irrigable land and whose contract total was greater than 2,000 acre-feet. Thirteen of the 20 DMC Unit contractors met these criteria (Reclamation 2004d). Water needs assessments were not completed for Centinella Water District, Eagle Field Water District, Fresno Slough Water District, Laguna Water District, Oro Loma Water District, Reclamation District #1606, and Widren Water District. Tables 2-3 and 2-4 show the total amounts of CVP water delivered to each contractor, based on the completed water needs assessments. Included in these tables are the contractor's total water supply (including any transfers or exchanges into or out of the contractor's service area), the total water demand, and the amount of the surplus or unmet demand. The water supply, demand, and delivery information in Tables 2-3 and 2-4 is based on a normal hydrologic year (Reclamation 2004d).

The likelihood of the contractors actually receiving the full contract amount in any given year is uncertain. The analysis for the water needs assessment did not consider that the CVP's ability to deliver CVP water has been constrained in recent years and may be constrained in future years due to many factors including hydrologic conditions and implementation of federal and state laws.

## **CHANGES IN WATER SERVICE AREAS**

The existing long-term water service contract renewals require the Contracting Officer's consent to boundary changes. Contract renewal would, therefore, not alter the likelihood of boundary changes. This EA does not consider future changes in water service area boundaries for the use of CVP water because it is uncertain where or if such changes would occur and because future changes require discretionary actions. Thus, any future requests for changes in water service area boundaries for the use of CVP water would be evaluated in separate technical and environmental analyses. Thus, the potential for environmental effects from such future boundary changes would depend entirely on whether the transfers result in any changes from the existing environmental baseline, which can appropriately be evaluated only in the environmental review for those transfers.

**Table 2-3  
Contractors' Water Supply Sources and Quantities for 1989  
(in acre-feet and based on a normal hydrologic year)**

Contractor	Total Delivery	Surface Water Supply	Groundwater <sup>1</sup>	Transfers/ Exchanges In	Transfers/ Exchanges Out	Total Supply	Agricultural Demand	M&I Demand	Total Demand <sup>2</sup>	Unmet Demand <sup>3</sup>
Banta-Carbona Irrigation District	21,023	29,248 <sup>4</sup>	0	0	7,150	43,121	50,385	0	50,385	7,264
Broadview Water District	32,975	0	0	0	8,104	24,871	26,741	0	26,741	1,870
City of Tracy <sup>5</sup>	0	0	5,000	0	0	5,000	0	12,487	12,487	7,487
Coehlo Family Trust <sup>11</sup>	2,080	1,336 <sup>6</sup>	1,336	0	0	4,752	8,760	0	8,760	4,008
Del Puerto Water District	128,395	0	0	0	0	128,395	144,261	0	144,261	15,866
James Irrigation District <sup>7</sup>	38,407	9,700 <sup>8</sup>		35,498	12,000	71,605	71,541	0	71,541	-64
Mercy Springs Water District <sup>9</sup>	13,850	0	0	550	4,084	10,316	10,064	0	10,064	-252
Patterson Irrigation District	20,428	25,483	535	4,000	7,400	43,046	47,062	0	47,062	4,016
Plain View Water District <sup>10</sup>	18,351	0	0	0	1,636	16,715	19,113	0	19,113	2,398
The West Side Irrigation District	7,500	19,823 <sup>4</sup>	0	600	0	27,923	30,605	0	30,605	2,682
Tranquility Irrigation District	7,825	20,200	547	0	5,975	22,597	32,765	300	33,065	10,468
West Stanislaus Water District	50,000	51,610 <sup>4</sup>	3,692	5,454	30,490	80,266	90,203	0	90,203	9,937

Source: Reclamation 2004d.

Note: Needs assessments were not completed for Centinella Water District, Eagle Field Water District, Fresno Slough Water District, Laguna Water District, Tranquility Public Utilities District (formerly, the Mardella Hughes property), Oro Loma Water District, Reclamation District #1606, and Widren Water District. Data for these districts are unavailable, but Reclamation has confirmed both past beneficial use and continuing needs through 2026 of the current maximum annual CVP supply.

<sup>1</sup>The amount of groundwater recharge is subtracted from the groundwater pumped. Negative numbers represent scenarios where recharge is greater than the amount pumped.

<sup>2</sup>Agricultural demand plus M&I demand.

<sup>3</sup>Total demand less total supply.

<sup>4</sup>Local source is the amount of any settlement contract for district's claims to San Joaquin or Kings River water, and/or water diversions pursuant to state water rights.

<sup>5</sup>City of Tracy data are for 1995.

<sup>6</sup>State Water Project supply.

<sup>7</sup>James Irrigation District data are for 1996.

<sup>8</sup>Kings River riparian water.

<sup>9</sup>The contract supply was reduced in 2025 because of contract reassignments.

<sup>10</sup>Plain View Water District has entered into Memoranda of Understanding with the City of Tracy that Plain View Water District will make an agreed-upon quantity of water available for treatment and delivery to certain specified lands within the Plain View Water District's service area.

<sup>11</sup>Coehlo Family Trust data is for 1999.

**Table 2-4**  
**Contractors' Water Supply Sources and Quantities for 2025**  
**(in acre-feet and based on a normal hydrologic year)**

Contractor	Total Delivery <sup>1</sup>	Surface Water Supply	Groundwater <sup>2</sup>	Transfers/ Exchanges In	Transfers/ Exchanges Out	Total Supply	Agricultural Demand	M&I Demand	Total Demand <sup>3</sup>	Unmet Demand <sup>4</sup>
Banta-Carbona Irrigation District	25,000	30,000 <sup>5</sup>	230	0	8,480	46,750	45,920	0	45,920	-830
Broadview Water District	27,000	0	0	0	1,900	25,100	25,100	0	25,100	0
City of Tracy	10,000	0	5,000	32,500	0	47,500	0	46,000	46,000	-1,500
Coehlo Family Trust	2,000	1,336 <sup>6</sup>	3,334	0	0	6,670	6,637	0	6,637	-33
Del Puerto Water District	140,210	0	3,000	0	3,000	140,210	142,735	0	142,735	2,525
James Irrigation District <sup>7</sup>	35,300	9,700 <sup>7</sup>	0	12,300	12,534	44,766	59,932	0	59,932	15,166
Mercy Springs Water District <sup>8</sup>	7,040	0	0	0	0	7,040	16,765	0	16,765	9,725
Patterson Irrigation District	16,500	23,000 <sup>5</sup>	535	2,000	6,000	36,035	53,242	0	53,242	17,207
Plain View Water District <sup>9</sup>	20,600	0	0	0	12,900	7,700	7,995	0	7,995	295
The West Side Irrigation District <sup>10</sup>	7,500	22,046 <sup>5</sup>	0	600	6,300	23,846	22,052	0	22,052	-1,794
Tranquility Irrigation District	13,800	20,200 <sup>5</sup>	0	2,600	3,600	33,000	29,229	324	29,553	-3,447
West Stanislaus Water District	50,000	45,000 <sup>5</sup>	3,692	5,000	18,993	84,699	84,699	0	84,699	0

Source: Reclamation 2004d.

Note: Needs assessments were not completed for Centinella Water District, Eagle Field Water District, Fresno Slough Water District, Laguna Water District, Tranquility Public Utilities District (formerly, the Mardella Hughes property), Oro Loma Water District, Reclamation District #1606, and Widren Water District. Data for this table are not available for these districts, but Reclamation has confirmed both past beneficial use and continuing needs through 2026 of the current maximum annual CVP supply.

<sup>1</sup>Also represents the maximum CVP contract amount.

<sup>2</sup>The amount of groundwater recharge is subtracted from the groundwater pumped. Negative numbers represent scenarios where recharge is greater than the amount pumped.

<sup>3</sup>Agricultural demand plus M&I demand.

<sup>4</sup>Total demand less total supply.

<sup>5</sup>Local source is the amount of any settlement contract for district's claim to San Joaquin or Kings River water, and/or water diversion pursuant to state water rights.

<sup>6</sup>State Water Project supply.

<sup>7</sup>Kings River riparian water.

<sup>8</sup>The contract supply was reduced in 2025 because of contract reassignments.

<sup>9</sup>Plain View Water District has entered into Memoranda of Understanding with the City of Tracy that Plain View Water District will make an agreed-upon quantity of water available for treatment and delivery to certain specified lands within the Plain View Water District's service area.

<sup>10</sup>Transfers out for 2026 are based on historical average of 1,300 acre-feet plus an anticipated 5,000 acre-foot transfer to the City of Tracy.

## **WATER TRANSFERS**

Water transfers are not included in the federal action. The long-term water service contract renewal would continue to permit transfers only with the Contracting Officer's consent. Reclamation would continue with separate environmental documentation for proposed transfers, establishing criteria and protocols to allow rapid technical and environmental review of future proposed transfers (for example, by providing programmatic environmental review and shortened authorization for one-year irrigation-to-irrigation transfers between contractors to adjust supplies when no additional land will be irrigated). Table 2-3 shows the water transfers and exchanges both into and out of the DMC Unit contractors' service areas for the year 1989. While it is difficult to identify all the water transfer programs that would occur over the next 25 years, Table 2-4 shows the estimated water transfers and exchanges for the DMC Unit contractors for the year 2025.

The federal action would not cause a change in frequency, size, or nature of transfers. Because any future transfers of CVP water to or from the DMC Unit contractors in response to changed short-term or long-term demands could not occur without the existence of the contract, any such transfers may be considered an indirect result of the CVP contract. However, whether such transfers will result in environmental effects would depend entirely on whether the transfers result in any changes from the existing environmental baseline, which can appropriately be evaluated only in the environmental review for those transfers.

## **DEVELOPMENT OF ALTERNATIVES**

Three alternatives and the Preferred Alternative were identified for the renewal of long-term contracts between Reclamation and the 20 DMC Unit contractors. The alternatives present a range of water service agreement provisions that could be implemented for long-term water service contract renewals. The first alternative, the No-Action Alternative, consists of renewing existing water service contracts as described by the Preferred Alternative of the CVPIA PEIS (Reclamation and Service 1999). In November 1999, Reclamation published a proposed long-term water service contract. In April 2000, the CVP contractors presented an alternative long-term water service contract. The November 1999 proposal serves as the basis for one "bookend" for negotiations and the April 2000 proposal represents the basis for the other "bookend." The Preferred Alternative represents the results of the 2004 negotiations and also the proposed contract that fits between these two "bookends." This EA considers these proposals with the No-Action Alternative as "bookends" to be considered for the environmental documentation to evaluate the impacts and benefits of renewing long-term water service contracts. Reclamation and the CVP contractors have continued to negotiate the 2004 CVP-wide terms and conditions, with

these proposals serving as the basis for an analysis of such “bookends.” The primary differences between the proposals and the final negotiated contract are summarized in Table 2-1. Table 2-5 compares the environmental consequences of long-term contract renewals under Alternative 1, Alternative 2, and the Preferred Alternative to those of the No-Action Alternative.

## **NO-ACTION ALTERNATIVE**

The No-Action Alternative assumes that the long-term CVP water service contracts would be renewed for a 25-year period in accordance with implementation of the CVPIA as described in the CVPIA PEIS Preferred Alternative. The CVPIA PEIS Preferred Alternative assumed that most contract provisions would be similar to many of the provisions in the 1997 CVP Interim Renewal Contracts, which included contract terms and conditions consistent with applicable CVPIA requirements. In addition, the No-Action Alternative assumed tiered pricing provisions and environmental commitments as described in the CVPIA PEIS Preferred Alternative. The provisions of the No-Action Alternative also are summarized in Table 2-1. These provisions were described in the Final CVPIA PEIS (Reclamation and Service 1999).

Several applicable CVPIA provisions are summarized below in the description of the No-Action Alternative because they are included in a different manner in Alternatives 1 and/or 2 and, therefore, could result in changes in environmental impacts or benefits. These issues include tiered water pricing, definition of M&I water users, water measurement, and water conservation.

### **TIERED WATER PRICING**

The CVPIA required the implementation of a tiered water pricing component, which is the incremental amount to be paid for each acre-foot of water delivered. The tiered pricing component for the amount of water delivered up to 80 percent of the contract total shall not be less than the established rate/charges for the contractor. The tiered pricing component for the amount of water delivered in excess of 80 percent of the contract total, but less than or equal to 90 percent of the contract total, shall equal one-half of the difference between the rate/charges established for the contractor and the M&I full cost rate. The tiered pricing component for the amount of water that exceeds 90 percent of the contract total shall equal the difference between (1) the rate/charges determined annually by the Contracting Officer in accordance with the then-current applicable Reclamation water rate-setting policies and (2) the M&I full cost water rate.

**Table 2-5  
Environmental Consequences of Long-Term Contract Renewal Alternatives 1 and 2 as Compared to the No-Action Alternative**

Affected Resource/Concern	Environmental Consequences of Alternative 1	Environmental Consequences of Alternative 2
Agriculture	Agricultural resource use assumed to be similar to the No-Action Alternative because the amount of water delivered, the timing of those deliveries, and the rates and methods of payment for deliveries do not substantially differ from the No-Action Alternative.	Impacts to Delta-Mendota Canal Unit total irrigated acreage range from a 1,600-acre decrease during a wet year to a 3,000-acre increase during a dry year. Impacts to Delta-Mendota Canal Unit value of production range from \$1.0 million decrease during an average year following a dry, five-year period to a \$1.2 million increase during a dry year. Impacts to Delta-Mendota Canal Unit net farm revenues range from a \$700,000 decrease during a wet year following a wet five-year period to a \$2.2 million increase during a dry year following a dry five-year period.
Socioeconomics/ Power Resources	Socioeconomic and power resources impacts are expected to be similar to the No-Action Alternative because the amount of water delivered, the timing of those deliveries, and the rates and methods of payment for deliveries do not substantially differ from the No-Action Alternative.	No impacts to power resources because CVP hydroelectric facilities would continue to be operated as under No-Action Alternative conditions. San Joaquin River region total employment would decrease by 120 jobs and income from profits and wages would decrease by \$4.2 million under the Average-Average hydrologic sequence. Region would lose an estimated 250 persons. San Joaquin River region total employment would decrease by 420 jobs and income from profits and wages would decrease by \$12.4 million under the Dry-Average hydrologic sequence. Region would lose an estimated 873 persons.
Land Use	No direct adverse impacts to land use. Renewed contract water deliveries continue to accommodate a portion of planned growth and support agricultural land uses as under No-Action Alternative conditions.	No direct adverse impacts to land use. Renewed contract water deliveries would continue to accommodate a portion of planned growth and support agricultural land uses as under No-Action Alternative conditions.
Air Quality	Similar crops, cropping patterns, and total irrigated acreage would not result in substantial fallowed acreage capable of adverse fugitive dust or related air quality impacts when compared to the No-Action Alternative.	Similar crops, cropping patterns, and total irrigated acreage would not result in substantial fallowed acreage capable of adverse fugitive dust or related air quality impacts when compared to the No-Action Alternative.

**Table 2-5  
Environmental Consequences of Long-Term Contract Renewal Alternatives 1 and 2 as Compared to the No-Action Alternative**

Affected Resource/Concern	Environmental Consequences of Alternative 1	Environmental Consequences of Alternative 2
Soils and Geology	Same as No-Action Alternative	Increased groundwater pumping could increase land subsidence. Increased soil salinity could result from reductions in surface water purchased and, therefore, available for leaching salts through crop root zones or from poor quality groundwater pumped in response to reduced deliveries.
Groundwater	Same as No-Action Alternative	Increased pumping in response to reduced purchases of surface water deliveries in response to higher tiered prices could reduce groundwater levels and increase salinity.
Surface Water Resources	No impacts to surface water resources. Contract total, water to be made available, time for delivery, point of diversion, responsibility for water diversion, water measurement, and rates and methods of payment do not differ substantially from No-Action Alternative.	No impacts to surface water resources. Contract total, water to be made available, time for delivery, point of diversion, responsibility for water diversion, water measurement, and rates and methods of payment would not differ substantially from No-Action Alternative.
Surface Water Quality	No impacts to surface water quality. Continued operation of conveyance and distribution facilities would not degrade water quality when compared to the No-Action Alternative.	No impacts to surface water quality. Continued operation of conveyance and distribution facilities would not degrade water quality when compared to the No-Action Alternative.
Biological Resources	No adverse impacts to fish, vegetation and wildlife. Contract renewal would continue water deliveries accommodating land uses existing under the No-Action Alternative. No habitat supporting special-status species would be converted to agricultural, municipal, or industrial use when compared to the No-Action Alternative.	No adverse impacts to fish, vegetation, and wildlife. Contract renewal would continue water deliveries accommodating land uses existing under the No-Action Alternative. No habitat supporting special-status species would be converted to agricultural, municipal, or industrial use when compared to the No-Action Alternative.

Tiered water pricing in the No-Action Alternative is based upon the use of an “80/10/10 Tiered Water Pricing from Contract Rate to Full Cost” approach including appropriate ability-to-pay limitations. The terms *Contract Rate* and *Full Cost Rate* are defined by CVP rating setting policies and PL 99-546 and the Reclamation Reform Act, respectively. The Contract Rate for irrigation and M&I water includes the contractor’s allocated share of CVP main project operation and maintenance (O&M) expenses, O&M deficit, if any, and capital cost. The contract rate for irrigation water does not include interest on capital. The contract rate for M&I water includes interest on capital, computed at the CVP M&I interest rate. The Full Cost Rate for irrigation and M&I water includes the interest at the Reclamation Reform Act interest rate. Under this approach, the first 80 percent of maximum contract total would be priced at the applicable Contract Rate. The next 10 percent of the contract volume would be priced at a value equal to the average of the Contract Rate and Full Cost Rate. The final 10 percent of the contract volume would be priced at Full Cost Rate.

In addition to the CVP water rate, contractors are required to pay CVP Restoration Fund<sup>1</sup> payments on all deliveries of CVP water. Reclamation law and policy provides full or partial relief to irrigation contractors on Restoration Payments and the capital rate component of the water rate. Ability-to-pay relief, relative to the irrigation water rate, is fully applicable only to the first 80 percent of the contract total. Ability-to-pay relief is not applicable to the third tier water rate. The second tier may reflect partial relief. Ability-to-pay relief is equal to the average of the first and third tiers. The relief could be up to 100 percent of the capital cost repayment and is based upon local farm budgets. The ability to pay does not apply to CVP O&M costs, M&I water costs, or any non-CVP costs. No contractor considered in the EA presently receives ability-to-pay relief.

The prices of CVP water used in the No-Action Alternative are based upon 1994 irrigation and M&I CVP water rates.

### **DEFINITION OF M&I WATER**

In CVP contracts for irrigation and M&I purposes, including both Alternatives 1 and 2, the definition of M&I water has usually been “water other than Irrigation Water.” Both a 1982

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<sup>1</sup> The “Central Valley Project Restoration Fund” was established in the Treasury of the United States by Section 3407(a) of the CVPIA. The CVP Restoration Fund receives revenues provided under CVPIA Sections 3404(c)(3), Renewal of Existing Long-Term Contracts—mitigation and restoration payments; 3405(f), Increased Revenues—from repayments for contracts transferred from irrigation use to M&I use; 3406(c)(1), San Joaquin and Stanislaus Rivers—surcharges for the development of the comprehensive plan for fish, wildlife, and habitat restoration; and 3407(d), Adjustment and Assessment of Mitigation and Restoration Payments.

Reclamation policy and contract terms further indicate that M&I water is water for human use and for purposes such as watering landscaping or animals, as compared to commercial agricultural use.

The definition of M&I users was established in portions of a 1982 Reclamation policy memorandum. In many instances, the term *municipal users* is easily defined. However, with respect to small tracts of land, the 1982 memorandum defined *agricultural water* as agricultural water service to tracts that can support \$5,000 gross income for a commercial farm operation. The memorandum indicates that this criterion can be met by parcels greater than two acres. Based on this analysis, the CVP has generally applied a definition of five acres or less for M&I uses in the CVP for many years. The CVP contractors can seek a modification for a demonstrated need of agricultural use on parcels between two and five acres in size from the Contracting Officer.

### **WATER CONSERVATION**

Water Conservation Guidelines implemented under the Reclamation Reform Act of 1982 have been in effect for CVP contractors. Reclamation policy has required contractors under continuing long-term water service contracts to comply with the Water Conservation Guidelines developed under the CVPIA and to submit water conservation plans. The water conservation assumptions in the No-Action Alternative include water conservation actions for municipal and on-farm uses assumed in the CDWR Bulletin 160-93 and the water conservation plans. Such criteria address cost-effective Best Management Practices that are “economical and appropriate,” including measurement devices, pricing structures, demand management, public information, and financial incentives. While measurement and pricing structures are required, they are not held to the “economical and appropriate” test.

### **WATER MEASUREMENT**

The No-Action Alternative includes water measurement at every turnout or connection to measure CVP water deliveries. It is assumed that if other sources are commingled with the CVP water, including groundwater or other surface waters, the measurement devices would report gross water deliveries. Additional calculations would be required to determine the exact quantity of CVP water. However, if groundwater or other surface waters are delivered by other means to the users, the No-Action Alternative did not include additional measurement devices except as required by the individual user’s water conservation plan (as described below).

**ALTERNATIVE 1**

Alternative 1 is based upon the proposal presented by the CVP water service contractors to Reclamation in April 2000. However, several issues included in the April 2000 proposal could not be included in Alternative 1 because they are not consistent with existing federal or state requirements or would require a separate federal action, as described below.

- The April 2000 proposal includes terms and conditions to provide a highly reliable water supply of a high water quality and provisions to improve the water supply capabilities of the CVP facilities and operations to meet this goal. *These issues were not included in Alternative 1 because they would require additional federal actions with separate environmental documentation and could be construed to limit the Secretary's efforts to achieve a reasonable balance among competing demands, as required by the CVPIA. Currently, Reclamation is completing a plan to restore project yield in accordance with Section 3408(j) of the CVPIA and under the CALFED program.*
- The April 2000 proposal includes language to require renewal of contracts after 25 years upon request of the contractor. *The study period for this EA is 25 years, which coincides with the contract period applicable to irrigation contracts required by CVPIA. Renewal after 25 years would be a new federal action and would require new environmental documentation.*
- The April 2000 proposal did not include provisions for compliance with biological opinions, but did include a provision requiring compliance with all applicable laws.
- The April 2000 proposal included provisions for water transfers. *It is recognized that water transfers will continue and that the CVP long-term water service contracts will provide the mechanisms for the transfers. However, it would be difficult to identify all of the water transfer programs that could occur with CVP water in the next 25 years. Reclamation would continue with separate environmental documents for transfers, establishing criteria to allow rapid technical and environmental review of proposed transfers.*
- The April 2000 proposal acknowledged the existing agreement for transfer of O&M responsibilities for project facilities with a non-federal entity. *There is no federal action involved in that provision of the long-term water service contract that requires analysis in this EA.*

- The April 2000 proposal includes provisions for resolving disputes. *Assumptions for resolution of disputes were not included in Alternative 1 because they do not appear to affect environmental conditions.*
- The April 2000 proposal includes parameters for Reclamation to approve proposed changes in contractor boundaries. *The study area in this EA for the long-term renewal process is defined by the existing service area boundaries of the contractors identified as being in the DMC Unit. Changes in contractor boundaries that also would propose changes in the CVP service area would be a new federal action requiring separate environmental documentation and Contracting Officer approval.*
- The April 2000 proposal includes provisions for expansion of the CVP service areas by the existing CVP water contractors. *The study area for the long-term contract renewal process is defined by the existing service area boundaries. Expansion of the service area boundaries would be a new federal action and would require separate environmental documentation and approval.*

The April 2000 proposal did include several provisions that were different than the assumptions for No-Action Alternative and these provisions are included in Alternative 1, as summarized in Table 2-1.

The April 2000 proposal also included several language changes that would not significantly modify CVP operations in a manner that would affect the environment as compared to the No-Action Alternative, but could affect specific operations of a contractor, as described in Table 2-1.

It should be noted that the tiered pricing assumptions (including unit prices for CVP water) and definition of M&I users in Alternative 1 would be the same as in the No-Action Alternative.

## **ALTERNATIVE 2**

Alternative 2 is based upon the proposal presented by Reclamation to the CVP water service contractors in November 1999. However, several provisions included in the November 1999 proposal could not be included in Alternative 2 because they would require a separate Federal Action, as described below.

- The November 1999 proposal included provisions for the contractor to request approval from Reclamation of proposed water transfers. *It is recognized that transfers of O&M requirements to the group of contractors will continue and that*

*the CVP long-term water service contracts will provide the mechanisms for such transfers. However, it would be difficult to identify all of the O&M transfer programs that could occur with CVP water in the next 25 years. Reclamation would require separate environmental documents for such transfers.*

- The November 1999 proposal includes provisions for transfer of O&M responsibilities to third parties. *The November 1999 proposal acknowledged an agreement to transfer O&M responsibilities for project facilities to a non-federal entity. There is no federal action involved in that provision of the long-term water service contract that requires analysis in this EA.*

The November 1999 proposal did include several provisions that were different than the assumptions for No-Action Alternative and included in Alternative 2, as summarized below and in Table 2-1. The primary differences are related to tiered pricing and the definition of M&I users.

### **TIERED WATER PRICING**

Tiered water pricing in Alternative 2 is based upon a definition of Category 1 and Category 2 water supplies. Tiered water pricing is defined under the No Action Alternative discussion. *Category 1* is defined as the quantity of CVP water that is reasonably likely to be available for delivery to a contractor and is calculated on an annual basis as the average quantity of delivered water during the most recent five-year period. For the purposes of this alternative, the Category 1 water supply is defined as the “contract total.” *Category 2* is defined as that additional quantity of CVP water in excess of Category 1 water that may be delivered to a contractor in some years. Under Alternative 2, the first 80 percent of the Category 1 volume would be priced at the applicable Contract Rate for the CVP. The next 10 percent of the Category 1 volume would be priced at a rate equal to the average of the Contract Rate and Full Cost Rate as defined by Reclamation law and policy. The terms *Contract Rate* and *Full Cost Rate* are defined by the Reclamation Reform Act and are discussed above under Tiered Pricing for the No-Action Alternative. The Contract Rate is equal to O&M expenses, O&M deficit, if any, and capital costs without interest on capital. The Full Cost Rate includes the interest charges. The final 10 percent of the Category 1 volume would be priced at the Full Cost Rate as required by the CVPIA. All Category 2 water, when available, would be priced at the Full Cost Rate. It should be noted that Category 1 and Category 2 volumes will change every year based upon the average deliveries for the “most recent 5 years,” with limited exception, based upon the findings of the water needs assessment. Alternative 2 assumes that the sum of Category 1 and Category 2 water is equal to the maximum quantity included in the contractor’s existing water service contract. The quantity is the same as the

No-Action Alternative and Alternative 1. The same ability-to-pay adjustments would be applicable to CVP Restoration Fund payments and tiered water rates as described in the No-Action Alternative.

#### **DEFINITION OF M&I WATER**

The definition of M&I water includes water used on all tracts of five acres or less, unless the Contracting Officer is satisfied that the use of such water meets the definition of “irrigation water.”

### **ALTERNATIVES CONSIDERED BUT ELIMINATED**

#### **NONRENEWAL OF LONG-TERM WATER SERVICE CONTRACTS**

Nonrenewal of the current long-term water service contracts is considered infeasible based on Section 3404(c) of the CVPIA. This alternative was considered but eliminated from analysis in this EA because Reclamation has no discretion not to renew the contracts.

#### **FUTURE CONTRACT RENEWALS**

The analysis in this EA also does not include future subsequent long-term water service contract renewals. Future water service contract renewals will be subject to conditions and mutually agreeable terms. A future water service contract renewal is a separate action. Before any future water service contract is executed, Reclamation and the contractor must comply with all applicable law.

#### **REDUCTION IN CONTRACT AMOUNTS**

A reduction of contract amounts was considered in certain cases, but rejected from analysis for several reasons. First, water needs assessments have been completed for the 13 contractors meeting the criteria for the completion of a water needs assessment. In all cases, these assessments demonstrate that the entire contract quantity has been put to beneficial use, and in almost all cases, both the current and projected demands equal or exceed the current total contract amount. Second, reductions in contract quantities are not required for Reclamation to implement the CVPIA or any other statutory or water rights obligations. The contracts contain shortage provisions that insulate Reclamation from liability when it imposes shortages because of legal obligations. Thus, the contract provides Reclamation with the flexibility to implement such CVPIA provisions as the dedication of water to fish, wildlife, and habitat restoration under Section 3406(b)(2) and to achieve a reasonable balance between different project purposes as envisioned by the CVPIA. Third, permanently reducing contract amounts for a 25-year term in order to express current constraints on CVP delivery capability would reduce opportunities for contractors to make investments for good water management, such as in storage or banking

facilities, that will be of benefit in higher water years; would inhibit wet year transfer arrangements that can stabilize local demands without requiring new water development; and would negatively impact the contractors' capacity to achieve contract repayment. Similarly, capturing current delivery constraints as permanent reductions in water supplies is inconsistent with related activities, such as the CALFED Record of Decision and Yield Increase Plan.

## **PREFERRED ALTERNATIVE**

The Preferred Alternative is based upon the final negotiated contract language. It also represents a negotiated position between Alternative 1 and Alternative 2, the "bookends" for the analysis in this EA. Some of the key provisions of the Preferred Alternative include:

- The final negotiated contract assumes that CVP water has been relied upon and considered essential by contractors. It also assumes that the Secretary, through coordination, cooperation, and partnership, will pursue measures to improve water supply.
- The final negotiated contract includes provisions for water transfers. It assumes that continuation of water transfers with the rate for transferred water being the transferor's rate for additional or reduced costs related to transfer and adjusted to remove any ability-to-pay-relief.
- Similar to Alternative 1, the final negotiated contract applies tiered water pricing to 80 percent and above the total contract quantity.
- The final negotiated contract assumes that contracts shall be renewed subject to certain conditions for agricultural water and unconditioned for M&I water. Ten years after the date of execution of the contract and every five years thereafter during the term of the contract, the Contracting Officer shall determine whether the relevant portion of the contract can be converted to a contract under subsection 9(d) of the Reclamation Project Act of 1939, pursuant to the Act of July 2, 1956 (70 Stat 483). Concurrently, the Contracting Officer shall also determine whether the relevant portion of this contract could be converted to a contract under subsection 9(c)(1) of the Reclamation Act of 1939.
- The final negotiated contract assumes that the CVP will operate in accordance with existing rules without obligations to operate towards water quality goals.

- The final negotiated contract includes provisions for expansion of the CVP service areas by the CVP contractors; however, unlike Alternative 1, it does not impose a time limit for assumed consent.