

RECLAMATION

Managing Water in the West

Delta-Mendota Canal/California Aqueduct Intertie

Central Valley Project, California

Cost Allocation Information Report



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region

December 2013

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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DRAFT

**U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region - Planning Division
Sacramento, CA**

December 2013

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Acronyms and Abbreviations

afa	Acre-feet per Annum (year)
AF	Acre-feet
ARRA	American Recovery and Reinvestment Act
BA	Biological Assessment
BDCP	Bay-Delta Conservation Plan
BO	Biological Opinion
CA	California Aqueduct
cfs	cubic feet per second
CVC	Cross Valley Canal Contractors
CVP	Central Valley Project
CVPIA	Central valley Project Improvement Act
Delta	Sacramento–San Joaquin River Delta
DMC	Delta-Mendota Canal
DWR	California Department of Water Resources
EC	San Joaquin River Exchange Contractors
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FWA	Friant Water Authority
FWS	US Fish and Wildlife Service
Intertie	The Delta-Mendota Canal/California Aqueduct Intertie
JPOD	Joint Point of Diversion
LOD	Level of Demand
M&I	Municipal and Industrial
MOU	Memorandum of Understanding
NMFS	National Marine Fisheries Service
OCAP	Operations Criteria and Action Plan
OM&R	Operation, Maintenance, and Replacement
PP	Pumping Plant
RAX	Replacements, Additions, and Extraordinary Maintenance
Reclamation, USBR	United States Bureau of Reclamation
RPA	Reasonable and Prudent Alternative
SOD	South-of-Delta
SWP	State Water Project
TAF	Thousand Acre-Feet
The Authority, SLDMWA	San Luis Delta-Mendota Water Authority

1.0 INTRODUCTION

The Delta-Mendota Canal/California Aqueduct Intertie (Intertie) is a pumped connection between the Central Valley Project (CVP) Delta-Mendota Canal (DMC) and the State Water Project (SWP) California Aqueduct (CA). Construction of the Intertie was completed in May 2012 and the facility was transferred to San Luis and Delta-Mendota Water Authority (Authority) for operation, maintenance, and replacement (OM&R) on July 13, 2012. The Intertie is located in an unincorporated area of the San Joaquin Valley in Alameda County, west of the city of Tracy (**Figure 1**).

As a result of changes in funding and construction authorities, and expedited construction schedules to meet American Recovery and Reinvestment Act (ARRA) guidelines, a cost allocation for this facility was not developed prior to construction. This report presents relevant historic and current information needed to develop the cost allocation and, subsequently, the repayment requirements for both construction and OM&R costs for the facility.

1.1 Background

The CVP export pumping and conveyance facilities, also known as south-of-delta (SOD) facilities, which include Jones Pumping Plant (PP), Tracy Fish Facility, and the DMC, provide CVP water for SOD water service and repayment contractors including the DMC water service contractors, the San Luis Unit, the San Joaquin River Exchange Contractors (EC), the San Felipe Unit, and the San Joaquin Valley wildlife refuges. **Table 1** summarizes approximate annual water deliveries, in acre-feet per year (AFA), through the DMC to Authority's service area.

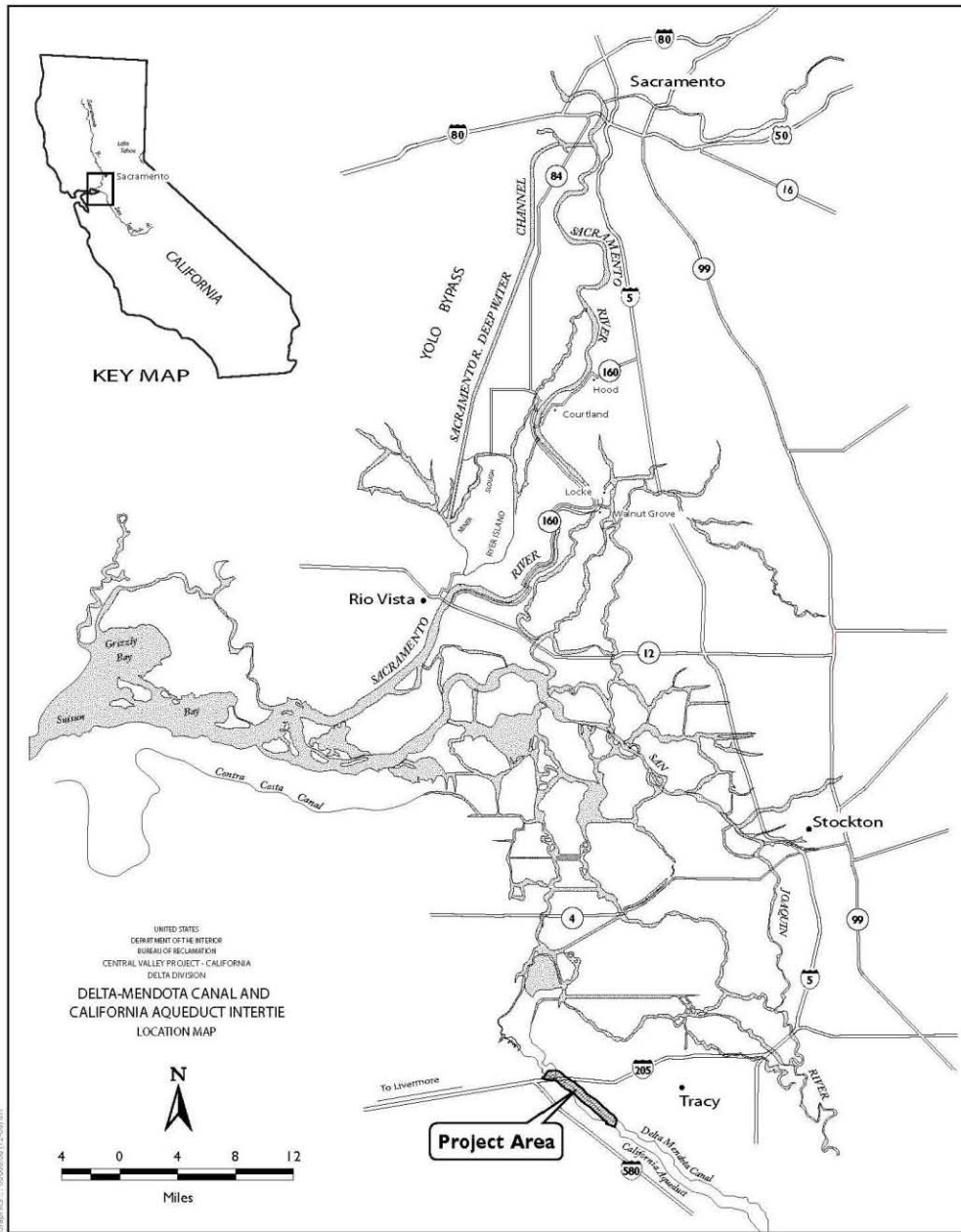
Table 1. DMC Average Annual Deliveries within The Authority's Service Area

Purpose	Volume (AFA)
Agricultural	2,500,000
M & I	150,000 – 200,000
Refuge Level 2	250,000 – 300,000
Annual Average	3,000,000

*source of information: <http://www.sldmwa.org>

The Intertie was conceived initially by the Authority and member districts to improve the water supply reliability of CVP deliveries south of the Delta. The purpose of the Intertie is to improve the DMC conveyance conditions that restrict the Jones PP to less than its original design pumping capacity of 4,600 cubic feet per second (cfs) and to improve operational flexibility for operations, maintenance, and emergency activities.

Figure 1. Regional location map



1.2 Purpose and Need for the Intertie

The project purpose is to improve the DMC conveyance conditions that restrict the CVP Jones Pumping Plant to less than its authorized pumping capacity of 4,600 cfs and to improve operational flexibility for operations and maintenance and emergency activities (USBR, 2009). Also, as specified in the project Environmental Impact Statement (EIS) (USBR, 2009), the need for this action resulted from the following conditions:

- A lack of operational flexibility was compromising the ability of the CVP and SWP to respond to emergencies, conduct necessary system maintenance, and provide capacity to respond to environmental opportunities in the Sacramento–San Joaquin River Delta (Delta).
- The amount, timing, and location of water deliveries from the DMC, apparent canal subsidence, siltation, the facility design, and other factors had resulted in a discrepancy between designed Jones PP export capacity and DMC conveyance capacity.
- There were unmet CVP water supply demands south of the Delta, and conditions along the DMC constrained CVP operations, reducing the water supplies reliably delivered to CVP water service contractors south of the Delta.

The Jones PP and the DMC were originally designed to pump and convey about 4,600 cfs, and these facilities have routinely been operated at 4,600 cfs for many years. The operations of the Jones PP are dictated not only by the design capacity, but also by tidal fluctuations at the Jones PP and the capacity of the DMC south of Tracy. Because the DMC capacity upstream of Santa Nella (O’Neill Forebay) and the pumping capacity at O’Neill Pumping Plant is about 4,200 cfs, additional Jones Pumping Plant pumping could previously only be accommodated if deliveries were made to contractors upstream of the O’Neill Pumping Plant (USBR, 2009). These factors previously reduced the opportunities for Reclamation to maximize its full design monthly average pumping rate of 4,600 cfs at Jones PP during the fall and winter months when delta water exports tend to be available. The Intertie project allows Reclamation to increase the maximum pumping at Jones PP during the fall and winter months from about 4,200 cfs to the design rate of 4,600 cfs.

As such, alternatives to allow Reclamation to maximize pumping were evaluated in early planning studies. Ultimately, the construction and operation of the Intertie between the California Aqueduct and the DMC was proposed (**Figure 2**). Locations were evaluated based on their ease of access, distance between the California Aqueduct and the DMC, geological conditions, distance from Jones Pumping Plant, and other physical factors.

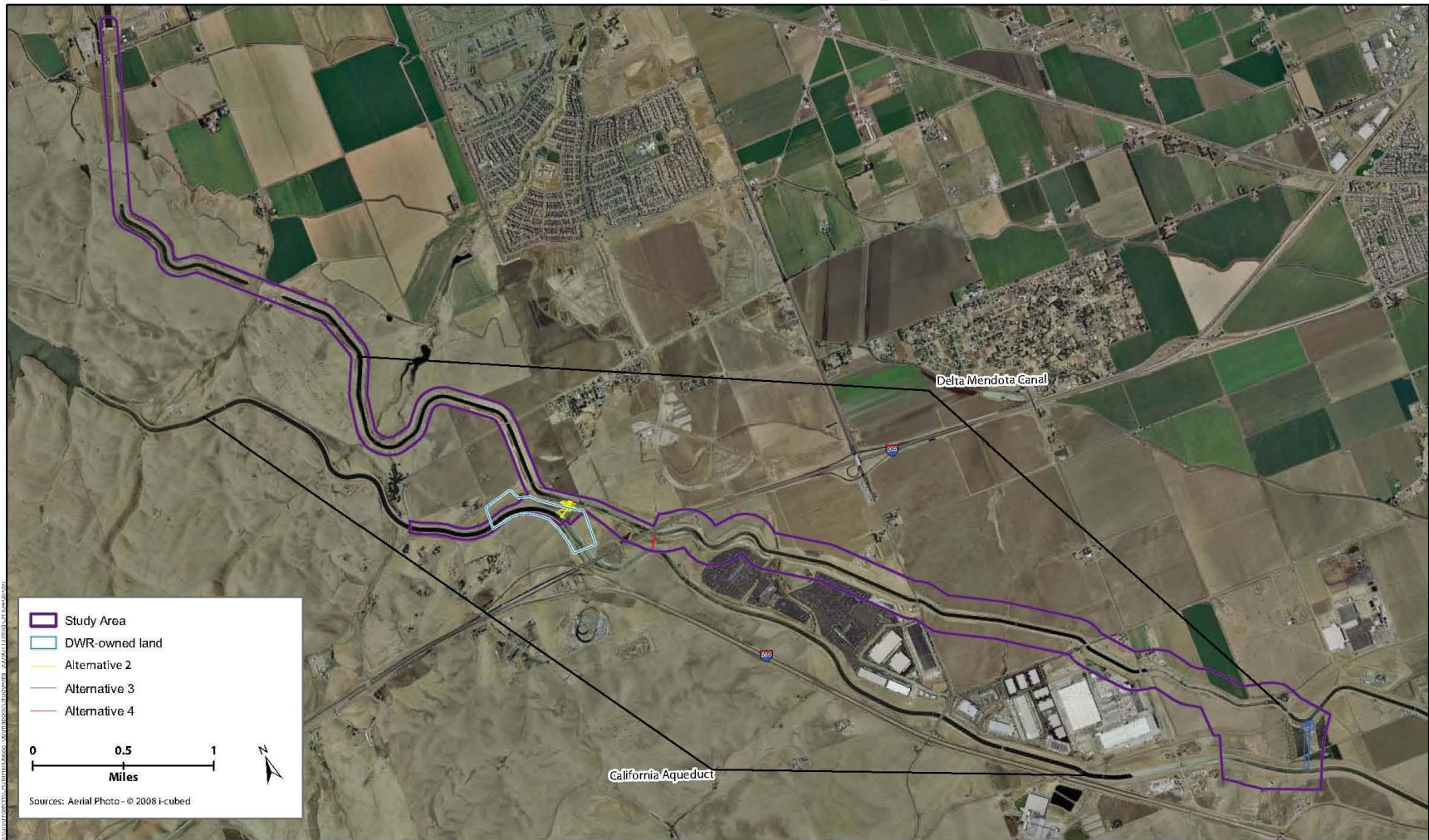
The Intertie allows the DMC and CA to share conveyance capacity and can be used to convey water in either direction. To convey water from the DMC to the California Aqueduct, the Intertie uses a pumping plant at the DMC that allows up to 467 cfs to be pumped from the DMC to the California Aqueduct via an underground pipeline. This additional 467 cfs allows the Jones PP to pump at its designed maximum monthly

average of about 4,600 cfs throughout the year. As modeled and analyzed in the project's EIS (USBR, 2009), the Intertie is operated for this purpose primarily in the months September through March. Additionally, water can be conveyed from the CA to the DMC. Because the CA is approximately 50 feet higher in elevation than the DMC, up to 900 cfs flow can be conveyed from the CA to the DMC through the Intertie using gravity flow. The operations of the Intertie are subject to all applicable Delta export pumping restrictions for water quality and fisheries protection. The Intertie is owned by Reclamation and operated by the Authority.

Construction of the Intertie is now complete and the project has been transferred to the Authority for OM&R via an amendatory contract adding the Intertie to the list of facilities in their 1998 *Agreement to Transfer the Operation, Maintenance, and Replacement and Certain Financial and Administrative Activities Related to the San Luis and Delta-Mendota Canals, Tracy Pumping and O'Neill Pumping/Generating Plant, San Luis Drain and Associated Works (Attachment B)*. The amendatory contract passed to the Authority the responsibility for recovering OM&R costs, including CA conveyance (wheeling) charges and power costs incurred to operate the pumping plant. The Authority has a separate agreement with California Department of Water Resources (DWR) to cover wheeling charges and OM&R costs related to the Intertie facilities constructed on an easement across State land.

Further expansion of the Intertie to a total pumping capacity of 700 cfs is authorized for feasibility study and may be considered in the future.

Figure 2. Detailed view of the Intertie and related facilities' location



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1.3 Construction Authorization

The Intertie was included in the Preferred Program Alternative in the CALFED Record of Decision in 2000.

The Intertie was initiated as an OM&R activity.

In addition, the Intertie was confirmed as an OM&R activity in the 2004 Water Supply Reliability and Environmental Improvement Act, Public Law 108-361, Title 1, Section 103(d)(2)(C).

The authorization language reads as follows:

".....evaluation and construction of an Intertie between the State Water Project California Aqueduct and the Central Valley Project Delta-Mendota Canal, near the City of Tracy, as an operation and maintenance activity, except that the Secretary shall design and construct the intertie in a manner consistent with a possible future expansion of the intertie capacity (as described in subsection (f)(1)(B))."

This section also provides express authority for the Secretary to design and construct the Intertie in a manner consistent with possible future expansion of the facility.

1.3.1 Other Related Authorizations

Sundry Civil Appropriations Act

The Act of March 4, 1921, (Sundry Civil Appropriations Act, 1922 (41 Stat. 1404) – Authorizing receipt by the United States of moneys for investigations, surveys, construction work, or any other development work incident thereto involving operations similar to those provided for by the reclamation law, such funds to be covered into the Reclamation Fund and available for expenditure for the purpose for which contributed in like manner as if the funds had been appropriated for that purpose. (This statute is referred to as the Contributed Funds Act.)

Warren Act

The Warren Act (Act of February 21, 1911; Chapter 141 (36 Stat. 925)) authorizes Reclamation to enter into contracts to impound, store, and/or convey non-project water when excess capacity is available in federal facilities.

2.0 FUNDING THE INTERTIE PROJECT

The intent of this section is to briefly summarize the history of funding the planning, design, and construction of the Intertie.

2.1 Planning Costs

The Intertie was first proposed in 1989 as an alternative for the Westlands Water District Water Supply Replacement Project study, and it was included in the CALFED Record of Decision as a part of the Conveyance Program. Prior to passage of P.L. 108-361, Reclamation supported value engineering and environmental compliance activities with Water and Related Resources (W&RR) appropriations for the CVP Yield Increase Program. This program was authorized by Section 3408(j) of the Central Valley Project Improvement Act to restore the yield of the CVP that had been dedicated to the environment. In 2003, Congress appropriated \$900,000 in W&RR specifically for the Intertie planning activities.

P.L. 108-361 authorized construction of the Intertie as an OM&R activity except that it should be designed and constructed to allow for future expansion. Reclamation developed and completed joint Federal and State environmental compliance activities and signed a Finding of No Significant Impact on April 20, 2005. The Authority was the lead agency for the State compliance activities and signed a Negative Declaration on May 24, 2005. Reclamation prepared an EIS and signed a ROD December 2009 following a lawsuit challenging the adequacy of the NEPA compliance.

2.2 Construction Funding

During the course of planning the project, Reclamation raised concerns about the likelihood of receiving appropriations to construct the Intertie because of high demands on the budget for other projects and extraordinary OM&R activities. As a result of the planning efforts and limited federal budget, numerous CVP water contractors indicated a willingness to contribute funds to design and construct the facilities under authority of the Sundry Civil Appropriations Act of 1922. In 2005, the Reclamation Commissioner authorized the Mid-Pacific Regional Director to negotiate with willing water districts to contribute funds for design, procurement, construction, administration, and associated labor costs of the Intertie.

In late 2005, 22 contributed funds agreements were signed with various local water and irrigation districts. A total of \$25,000,000 was contributed by these contractors and deposited into a trust account according to Reclamation policies, standards, and practices (Reclamation Manual, Contributed Funds Act of March 4, 1921 (41Stat. 1404)).

At the time the contributed funds agreements were negotiated, the Mid-Pacific Region was allowing extended repayment for some types of OM&R activities.

The facility designs and construction specifications were completed by a team including personnel from the Reclamation Technical Services Center, Mid-Pacific Region, and the Authority.

Supply and construction contracts were awarded, and the pumps, motors, and valves were manufactured before the lawsuit was filed against Reclamation challenging the adequacy of the environmental documentation. Reclamation decided to prepare an EIS, and the pumps, motors, and valves were stored appropriately in a warehouse with the Authority. In addition, the contributed funds were transferred to the Authority to hold in an interest-bearing account until the project construction could begin again.

During this time, the Mid-Pacific Region discovered that extended repayment was only authorized for new construction.

In 2009, the American Recovery and Reinvestment Act (ARRA) passed, and federal agencies were tasked with identifying projects ready for construction. Since Reclamation was nearing completion of the Intertie EIS, the Authority and contributing contractors requested that Reclamation apply for ARRA funding to complete Intertie construction and return their contributed funds.

After exhausting all options for interest-free repayment as a capitalized O&M activity, Reclamation and the contractors asked about the language in P.L. 111-11, which did authorize extended repayment for extraordinary OM&R. The issue of extended repayment was important to the contractors because they had thought, consistent with the language in the contributed funds agreements, that their contribution would be credited against annual OM&R charges through 2030. Also, the contractors believed that the “construction costs” would ultimately be allocated to both the Authority member agencies as well as the Friant Water Authority (FWA) members.

After exhausting all options for extended repayment for an OM&R activity, the contractors turned to the authorizing legislation in P.L. 108-361, which directed Reclamation to design and construct the Intertie to allow for future expansion. The issue was reviewed by the Department of the Interior’s Solicitors Office, and it was determined that the Intertie would be considered an addition to the CVP and the costs would be treated as new construction allowing for extended repayment due to constructing the facility larger than currently needed for OM&R purposes.

Reclamation applied for and received over \$17 million in ARRA appropriations to fund the Intertie construction. Subsequently, Reclamation returned the remaining \$22.4 million of the contributed funds to the individual contributors.

Table 2 summarizes the funding sources, authorities, and funded activities through federal fiscal year 2012.

Table 2. Intertie funding sources and expenditures through Fiscal Year 2013

Funding Sources and Expenditures						
Fiscal Year	W&RR	CALFED	Contributed	ARRA	Construction Prime Contract (ARRA)	Total
2002	\$105,421					\$105,421
2003	\$815,542					\$815,542
2004	\$1,200,441					\$1,200,441
2005	\$891,845		\$804,955			\$1,696,800
2006	\$74,874	\$59,775	\$1,049,166			\$1,183,815
2007	\$14,350	\$179,671	\$743,431			\$937,452
2008		\$112,705	\$48			\$112,753
2009		\$556,605	\$105			\$556,710
2010		\$1,612,916	-\$105			\$1,612,811
2011		\$3,091,480		\$484,897	\$10,095,330	\$13,671,707
2012		\$2,239,936		\$1,990,498	\$4,515,251	\$8,745,685
2013*		\$70,534		\$463,669		\$534,203
Total						\$31,173,340

* 2013 costs still accruing, not final

3.0 INTERTIE COST ALLOCATION

A cost allocation is a process to allocate the construction costs to the project purposes as one step in determining who will repay both the construction and OM&R costs of a new facility. Initial cost allocations are typically conducted as a part of a feasibility study to support Congressional authorization to construct a new facility. Final cost allocations are prepared once the facility construction is complete. OM&R costs are commonly allocated similarly to the construction cost allocation.

Reclamation had long considered the Intertie as an OM&R activity, and Congress confirmed that the planned capacity was an OM&R activity. Since the Intertie was an OM&R activity, Reclamation did not prepare an initial or final cost allocation. With the later interpretation that the Intertie was an addition to the CVP and thus eligible for extended repayment of construction costs, a cost allocation is necessary.

3.1 Construction Cost Allocation Process

As an OM&R activity, the cost of the Intertie would have been added to the existing CVP rate-setting policy, and the costs would likely have been added to the existing Conveyance Pumping Cost Pool. As an additional feature to the CVP, the costs will be allocated and sub-allocated according to the quantifiable benefits of the Intertie, consistent with Reclamation Directive & Standard PEC 01-02.

The primary benefit of the Intertie is water supply reliability, and the quantifiable benefits are measured as the change in long-term average annual CVP water deliveries attributed to the Intertie. The unquantifiable benefit is also water supply reliability as a result of being able to operate the Intertie during emergency and planned outages that may occur during OM&R activities.

Construction costs are first allocated to the project purpose—in this case, water supply. Costs are further sub-allocated between irrigation, municipal & industrial, and environmental.

3.1.1 Intertie Benefits

The latest operations modeling of the CVP with the Intertie in place has indicated an increase in long term average annual agricultural water deliveries of approximately 28,000 AF as a result of constructing the Intertie (**Table 3**). Of this, approximately 22,000 AF has been demonstrated to benefit south-of-Delta agricultural contractors, approximately 1,000 AF to benefit north-of-Delta contractors, and approximately 5,000 AF to benefit Cross Valley Canal (CVC) water contractors.

Table 3. Summary of estimated water supply delivery benefits with the Intertie facility

Beneficiary	Estimated Agricultural Supply Benefits*	
	Amount (AF)	% of total benefits
South-of-Delta Agriculture	22,200	79.85%
North-of-Delta Agriculture	1,200	4.32%
Cross Valley Contractors	4,400	15.83%
Total	27,800	100%

*Benefit estimations were made using the CalSim II hydrologic model, updated March 2013.

3.1.2 Benefit Calculation

The water supply benefits are calculated by Reclamation using the CalSim model. CalSim is a generalized water resources simulation model for evaluating operational alternatives of large, complex water resources problems within the CVP and SWP.

CalSim II modeling studies were completed as part of the EIS/EIR for the Intertie (USBR, 2009) and have subsequently been updated for this cost allocation and report. The CalSim modeling studies used in the Final EIS were consistent with assumptions used in the OCAP Biological Assessment CalSim II Study 8.0 (May 2008). The updated water supply benefits were based on CalSim studies updated to represent current operations and new facilities such as the Red Bluff Pumping Plant. Benefits are estimated by comparing the water supply delivery results from a CalSim study without

the Intertie to a study that includes the Intertie. Agricultural water service contractors receive additional CVP deliveries with the Intertie because the water can be moved over to the CA and around the DMC capacity constraint.

In Summary, most current modeling studies based upon the applicable biological opinions in effect as of 2010 indicate an improvement in water supply reliability by increasing long term average annual water deliveries of approximately 28,000 AF to agricultural water service contractors as a result of operating the Intertie. Water supply reliability is not improved for water right Settlement and Exchange Contractors, M&I water service contractors, and/or refuge water contractors because their contractual water supply reliability is already very high. Detailed study results are documented in **Attachment C**.

3.1.3 Cost Allocation

Table 4. Cost Allocation and Sub-Allocation

Purpose	Allocation & Sub-Allocation	
	Amount (AF)	% of Costs
Water Supply		
• M&I	0	0%
• Agriculture	27,800	100%
• Refuge	0	0%
• Water Right	0	0%
Total	27,800	100%

4.0 REFERENCES

- USBR, 2005. *Basis of Negotiation for Contracting with Various Contractors for the Delta-Mendota Canal and California Aqueduct Intertie Pumping Plant – Central Valley Project*. United States Bureau of Reclamation, Mid-pacific Region.
- USBR, 2009. *Delta-Mendota Canal / California Aqueduct Intertie, Final Environmental Impact Statement*. United States Bureau of Reclamation, Mid-pacific Region and Western Area Power Administration, November 2009.

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5.0 ATTACHMENTS

Attachment A: Project Timeline

Attachment B: Transfer Agreement / MOU between the Authority and FWA for OM&R of Certain CVP Facilities

Attachment C: Hydrologic Modeling Analysis Summary

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Attachment A - Project Timeline

3/1/1998	Initial contract executed between Reclamation and the Authority to Transfer the Operation, Maintenance, and Replacement and Certain Financial and Administrative Activities Related to the San Luis and Delta-Mendota Canals, Tracy Pumping and O'Neill Pumping/Generating Plant, San Luis Drain and Associated Works.
3/1/1998	First MOU between FWUA and the Authority for transfer of OM&R costs for CVP water deliveries through "certain facilities" (a.k.a. AUTHORITY Transfer Agreement)
8/28/2000	CALFED Bay-Delta Program Record of Decision recommends an "Intertie between SWP and CVP facilities at or near Tracy."
9/1/2002	Amended MOU between FWUA and the Authority related to transfer of OM&R costs for CVP water deliveries through "certain facilities" revises Articles 11, 12, 16, and 18 of the March 1, 1998 agreement.
9/9/2002	Value Planning – Final Report issued
9/23/2002	Contract issued for an EA/IS
2/18/2003	Signed Amendment to 3/1/1998 contract executed between Reclamation and the Authority to Transfer the Operation, Maintenance, and Replacement and Certain Financial and Administrative Activities Related to the San Luis and Delta-Mendota Canals, Tracy Pumping and O'Neill Pumping/Generating Plant, San Luis Drain and Associated Works.
5/28/2003	Press Release seeking public input
Aug 2003	2nd Press Release seeking public input
Aug 2003	Geologic Design Data Report
Nov 2003	First Admin Draft EA/IS completed
May 2004	Addendum to Geologic Design Data report
June 2004	Second Admin Draft EA/IS completed
7/30/2004	FWS OCAP BO operational effects
10/22/2004	NMFS OCAP BO operational effects

10/25/2004 PL 108-361 Authorizes evaluation and construction of an Intertie between the State Water Project California Aqueduct and the Central Valley Project Delta-Mendota Canal

11/18/2004 Draft FWCA received

11/29/2004 EA/IS released for public review

12/30/2004 Public review period ends

2/15/2005 ESA consultation terrestrial species

2/15/2005 The Mid-Pacific Region requests delegation of authority to negotiate and execute one or more contributed funds agreements with certain CVP water service contractors, including Westlands Water District, Santa Clara Valley Water District, and possibly other south of Delta water service contractors yet to be determined, for the DMC and California Aqueduct Intertie Pumping Plant

2/16/2005 FWS OCAP revised BO operational effects

3/16/2005 Section 106 process completed

4/20/2005 Approved Negative Declaration (CEQA)

4/26/2005 Final FWCA received

4/27/2005 Signed Basis of Negotiation approval to contract with various contractors for Intertie Pumping Plant.

- “As an addition to the CVP, Intertie costs will be treated and accounted for as capital costs and allocated among project purposes to CVP contractors benefiting from the Intertie in accordance with current CVP cost allocation methods and practices.”

5/24/2005 FONSI signed

6/6/2005 Press Release issued for EA/IS/FONSI

8/5/2005 Fully executed Contributed Funds Agreement between the U.S. and the City of Tracy for the Intertie project.

8/31/2005 PCL lawsuit on FONSI

1/17/2006 Supply and Construction Contracts Awarded

DWR easement NOD

2/3/2006 PCL temporary restraining order enjoining construction

2/27/2006 Permanent easement recorded

3/13/2006 FONSI withdrawn

4/6/2006 Reclamation terminated construction contract and agreed to prepare EIS

5/15/2006 Lawsuit dismissed

12/15/2008 FWS BO on CVP and SWP operation effects completed (OCAP)

7/14/2009 Draft EIS

10/29/2009 USFWS Biological Opinion on Intertie

11/20/2009 FEIS

12/28/2009 ROD

2/22/2010 MP-200 submits Requisition package to MP-3800

April 2010 Project awarded ARRA funding

4/21/2010 Solicitation issued

5/20/2010 DWR Intertie OM&R Agreement executed; NOD filed

6/8/2010 Contract bids received

6/24/2010 Easement modification recorded

7/10/2010 Termination of Contributed Funds Agreement with Santa Clara Valley Water District and Return of Contributed funds due to award of ARA funding.

7/29/2010 Construction Contract awarded

9/30/2010 Contractor mobilization

10/14/2010 Groundbreaking Ceremony

Oct 2010 - Mar 2012 Pumping plant construction

Jul 2011 - Mar 2012 Electrical installation and switchyard construction

April 2012	Testing, cleanup and demobilize
May 4, 2012	Project Completion Ceremony
May 2012	Project transferred to Plant in Service
7/13/2012	Project transferred to the Authority for OM&R

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Attachment B

Transfer Agreement / MOU between the SLDMWA and the FWA for OM&R of Certain
CVP Facilities

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**FIRST AMENDED AND RESTATED
MEMORANDUM OF UNDERSTANDING BETWEEN
FRIANT WATER USERS AUTHORITY AND
SAN LUIS & DELTA-MENDOTA WATER AUTHORITY
RELATING TO ALLOCATION, COLLECTION AND PAYMENT OF
OPERATION, MAINTENANCE & REPLACEMENT COSTS FOR
WATER DELIVERED THROUGH
CERTAIN CENTRAL VALLEY PROJECT FACILITIES**

This First Amended and Restated Memorandum of Understanding is made effective as of September 1, 2002, by and among the Friant Water Users Authority, a joint powers agency of the State of California organized and existing pursuant to Government Code Section 65000, *et seq.* and the San Luis & Delta-Mendota Water Authority, a joint powers agency of the State of California organized and existing pursuant to Government Code Section 65000, *et seq.*, and amends and restates the Memorandum of Understanding made and entered into by the parties effective as of March 1, 1998.

DEFINITIONS

As used herein, the following terms have the meanings indicated below. Terms with their initial letters capitalized but not defined below have the same meanings ascribed to them in the FWUA Transfer Agreement and the SLDMWA Transfer Agreement.

1. CVP Contractors: Parties that receive water pursuant to Water Delivery Contracts or that receive Other Water as said terms are defined in Article 1 of the SLDMWA and FWUA Transfer Agreements.
2. Friant Division Contractors: CVP Contractors receiving water service from the Friant Division of the Central Valley Project, including members and non-members of the FWUA.
3. FWUA: The Friant Water Users Authority.
4. FWUA Transfer Agreement: That certain Agreement for the Transfer of the Operation, Maintenance and Replacement, and Certain Financial and Administrative Activities of the Friant-Kern Canal and Related Works between the Friant Water Users Authority and the United States of America effective March 1, 1998, as amended.
5. Memorandum of Understanding or "MOU": This Agreement.
6. OM&R: Operation, maintenance and replacement as that phrase is defined in the SLDMWA Transfer Agreement.

7. OM&R Costs: Costs of providing OM&R for the Project Facilities pursuant to the SLDMWA Transfer Agreement, including without limitation conveyance pumping costs associated therewith.
8. OM&R Program: All activities of the SLDMWA required for the OM&R of the Project Facilities pursuant to the SLDMWA Transfer Agreement, including but not limited to, the program of work to be performed, the preparation and adoption of budgets, funding (including establishment of reserves and creation of debt), purchasing, auditing, inspections, cost recovery methodology and administrative responsibilities.
9. Project Facilities: The physical works and appurtenances associated with the Tracy Pumping Plant, the Delta-Mendota Canal, the O'Neill Pumping/Generating Plant, the federal share of the O'Neill Forebay, the Mendota Pool, the federal share of San Luis Unit joint use conveyance and conveyance pumping facilities, and the San Luis Drain; this term is intended to encompass the same facilities defined as the "Project Works" in the SLDMWA Transfer Agreement.
10. Settlement Contractors: Those contractors listed on the attached Exhibit A entitled to receive water service through the Project Facilities without charge.
11. Settlement Water: Water the Settlement Contractors are entitled to receive without charge from Project Facilities.
12. SLDMWA: The San Luis & Delta-Mendota Water Authority.
13. SLDMWA Cost Plan: The cost allocation methodology described on that attached Exhibit B.
14. SLDMWA Transfer Agreement: That certain Agreement to Transfer the Operation, Maintenance and Replacement and Certain Financial and Administrative Activities Related to the San Luis and Delta-Mendota Canals, Tracy Pumping and O'Neill Pumping/Generating Plant, San Luis Drain and Associated Works between the San Luis & Delta-Mendota Water Authority and the United States of America effective March 1, 1998, as amended.
15. USBR: United States Department of Interior, Bureau of Reclamation.

RECITALS

1. Since March 1, 1998, the costs of operating, maintaining and replacing certain Central Valley Project (the "CVP") conveyance facilities and the San Luis Drain, and the costs of conveyance pumping, no longer have been funded by the USBR through federal appropriations and instead are being funded pursuant to those certain Agreements for the Transfer of the Operation, Maintenance and Replacement, and certain Financial and Administrative Activities (the "Transfer Agreements") entered into between USBR and (i) the SLDMWA, (ii) the FWUA,

and (iii) the Madera Irrigation District and the Chowchilla Water District, and the October 1, 1996 Transfer Agreement between the USBR and the Tehama-Colusa Water Authority, respectively (referred to as the "Conveyance Contractors"), except that the USBR has entered into, or agreed to enter into, other appropriate legal instruments to fund OM&R costs for CVP Contractors which have a deficiency, as that term is defined in Article 11(c) of the SLDMWA and FWUA Transfer Agreements, in payment to the Conveyance Contractors.

2. The Conveyance Contractors have agreed to the principle that in operating under their respective Transfer Agreements, the Conveyance Contractors will replace the USBR's historic CVP-wide pooling of costs of operating, maintaining and replacing CVP conveyance facilities with direct funding by each Conveyance Contractor to cover the operation, replacement and maintenance costs of the facilities assumed by each pursuant to their respective Transfer Agreements.

3. Pursuant to the terms of the SLDMWA Transfer Agreement, the cost of OM&R of CVP conveyance facilities and the San Luis Drain, and the costs of conveyance pumping for water delivered through the Project Facilities will be funded by the SLDMWA, and the SLDMWA will establish budgets and methods for direct recovery of OM&R Costs of such facilities from the CVP Contractors receiving such water.

4. Because deliveries of San Joaquin River water to Friant Division Contractors are dependent upon the delivery of Settlement Water to the Settlement Contractors, those Friant Division Contractors have a critical interest in the OM&R of the Project Facilities and have agreed to pay the O&MR Costs incurred by the SLDMWA under the SLDMWA Transfer Agreement associated with the delivery of the Settlement Water as determined in accordance with this MOU.

5. The FWUA, by virtue of the FWUA Transfer Agreement, is willing to apportion among and collect from the Friant Division Contractors the OM&R Costs incurred by the SLDMWA in delivering Settlement Water for which the FWUA is responsible under this MOU and remitting the same to the SLDMWA, all in accordance with the terms of this MOU.

AGREEMENT

The parties hereby enter into this Memorandum of Understanding for the purposes set forth herein, based upon the facts and definitions stated above, and upon the terms and conditions set forth below, to wit:

I. PURPOSES OF THE MOU

The purposes of this MOU are as follows:

A. To establish the standard for OM&R of the Project Facilities by the SLDMWA, and to set forth certain assurances relating thereto;

B. To establish the methodology for allocating and recovering OM&R Costs;

C. To establish the process for remittance by the FWUA to the SLDMWA of payments collected from the Friant Division Contractors for OM&R Costs allocable to the Friant Division Contractors under this MOU;

D. To establish the principles for input and participation in decision-making by the FWUA in the OM&R Program, including cost allocation, collection and payment procedures, and budgeting;

E. To establish the process of resolution of any disputes that may arise in the implementation of this MOU; and

F. To establish the conditions or events which would trigger renegotiation and/or termination of this MOU.

II. STANDARD FOR OM&R OF THE PROJECT FACILITIES

The OM&R Program shall comply with the standards set forth in the SLDMWA Transfer Agreement; provided, that the OM&R Costs shall not exceed those which are reasonably necessary to OM&R the Project Facilities in accordance with such standards. The parties mutually acknowledge that there are items of deferred maintenance which must be performed on the Project Facilities in order for the OM&R Program to meet the applicable standards, and nothing in this paragraph is intended to preclude the performance of those deferred maintenance items or the equitable development of reserves in accordance with this MOU which will permit the OM&R of the Project Facilities in the future in accordance with the SLDMWA Transfer Agreement.

III. DEVELOPMENT OF COST RECOVERY METHODOLOGY

A. Cost Recovery Methodology for OM&R Costs

1. Principles of Cost Allocation. The OM&R Costs in which the FWUA will share shall be allocated to OM&R activities in accordance with (i) generally accepted accounting principles and (ii) the SLDMWA Cost Plan, which shall be applied consistently for all OM&R activities of the SLDMWA. To the extent the allocation of the costs for specific acquisitions or OM&R activities is not addressed by the SLDMWA Cost Plan, such costs shall be allocated in a manner consistent with the principles contained in the SLDMWA Cost Plan; provided, that if the actual use of such acquired property or facilities use proves to be materially different from that anticipated, appropriate adjustments shall be made in order to more accurately reflect an appropriate allocation of such costs.

2. Reserves. Reserves for extraordinary OM&R, capital replacement, emergencies and other appropriate purposes shall be established in accordance with the SLDMWA Transfer Agreement and the SLDMWA Cost Plan. Only items meeting the criteria attached hereto as Exhibit C (the "Reserve Criteria") shall constitute reserves in which the FWUA must participate for purposes of this MOU.

3. Disbursements of Interest or Reserves. While it is anticipated that all amounts paid by the FWUA to the SLDMWA under this MOU and any associated interest earnings will be retained by the SLDMWA and utilized to support the continued OM&R Program, in the event of any distributions of interest or of reserves, such distributions will be made to the parties providing the funds being distributed or the funds on which the interest to be distributed was earned, including the FWUA.

4. Miscellaneous Revenues. It is anticipated that the SLDMWA may from time to time realize miscellaneous revenues from sources directly related to the OM&R Program, including without limitation revenues from (i) rebates from vendors of products and/or services used in the OM&R Program, (ii) the sale of used equipment originally acquired for use in the OM&R Program, and (iii) amounts collected from third parties for whom the SLDMWA performs contract services using employees, equipment and/or materials otherwise used in the OM&R Program. All such miscellaneous revenues will be retained by the SLDMWA and utilized to support the continued OM&R Program.

IV. ALLOCATION, COLLECTION AND REMITTANCE OF COSTS BY FWUA

A. Recovery from Friant Division Contractors

The FWUA shall, as a part of the FWUA cost recovery methodology developed under the FWUA Transfer Agreement, provide for the recovery of OM&R Costs allocated to Settlement Contractors under the SLDMWA Cost Recovery Plan, which OM&R Costs are to be paid by Friant Division Contractors. To the extent the USBR has conferred upon the FWUA the legal authority to do so, the FWUA shall allocate such costs among, and collect such costs from, the Friant Division Contractors, and shall promptly remit such costs to the SLDMWA.

B. Remedies for Non-Payment or Delinquent Payment

In the event of any non-payment or delinquent payment to the FWUA by a Friant Division Contractor of amounts to be collected by the FWUA and remitted to the SLDMWA under this MOU, the FWUA shall diligently exercise its available remedies, (whether under Article 11 of the FWUA Transfer Agreement, or under California law), in a manner the FWUA reasonably believes is most likely to result in the prompt collection and remittance of such amounts to the SLDMWA. If the FWUA is unable to collect and remit any amount owing from the delinquent Friant Division Contractor before the last day of the month before the scheduled month of delivery (whether from such Friant Division Contractor or from the USBR via offset or direct payment), the USBR shall be deemed to have directed the SLDMWA to deliver or convey Settlement Water despite a delinquency under Article 11 of the SLDMWA Transfer Agreement, and the United States shall be liable to the SLDMWA for the costs to be recovered on account of such Settlement Water under this Agreement; provided, that the FWUA shall also continue to diligently exercise its available remedies in the manner the FWUA reasonably believes is most likely to result in the prompt collection and remittance of such amounts to the SLDMWA. Nothing contained in this MOU authorizes the SLDMWA to terminate Settlement Contractor deliveries in the event of delinquencies in payment by the Friant Division Contractors.

V. FWUA INPUT AND PARTICIPATION IN SLDMWA OM&R ACTIVITIES

A. FWUA Participation

The FWUA shall participate in SLDMWA decision-making relating to the OM&R of the Project Facilities and the OM&R Program through representation and voting on the SLDMWA Finance and Administration Committee and the OM&R Technical Subcommittee.

1. Board of Directors. The FWUA shall not, by virtue of this MOU, be entitled to representation on the SLDMWA Board of Directors, and this MOU shall not be deemed to alter the authority of the SLDMWA Board of Directors to adopt and amend budgets for the conduct of SLDMWA business, including for OM&R of the Project Facilities.

2. Finance and Administration Committee. The FWUA shall be entitled to one of eight positions on the Finance and Administration Committee ("FAC"), with the right to vote on all OM&R budgetary matters. The FAC is an advisory committee to the Board of Directors. A recommendation of the FAC to the Board of Directors to adopt or amend the OM&R Budget shall be adopted by the "yes" vote of at least 5 of 8 members. The FWUA representative shall be appointed by the SLDMWA Chairman upon recommendation from the FWUA, and an alternate representative shall be appointed to participate and to cast the vote of FWUA in the absence of the representative, or in case such representative is barred from voting due to conflict of interest.

3. OM&R Technical Committee. The FWUA shall be entitled to one of 10 positions on the OM&R Technical Committee, with the right to vote on all matters. The OM&R Technical Committee is a subcommittee of the FAC and is advisory to the FAC and the Board of Directors. As long as this MOU is in effect, the OM&R Technical Committee shall be comprised of the following members, with no CVP Contractor entitled to have more than one representative on such committee at any time:

. Contractors served from the Mendota Pool	1
. Contractors served from the Lower DMC	1
. Contractors served from the Upper DMC	1
. Contractors served from the San Luis Canal (1 from Westlands + 1 from others)	2
. Contractors served from the San Felipe Division	1
. Exchange Contractors	1
. FWUA (appointed by SLDMWA Chairman as recommended by FWUA)	1

USBR (appointed by SLDMWA Chairman as recommended by USBR)	1
SLDMWA Technical Staff	1

One alternate shall be appointed for each such representative, and each such alternate shall participate and cast the vote of the represented party in the absence of the representative or in case the representative is barred from voting due to conflict of interest.

The contractors in each of the above-referenced service areas are listed on the attached Exhibit D.

A recommendation of the OM&R Technical Committee to the FAC to adopt or amend OM&R Budget levels shall be adopted by the "yes" vote of at least 8 of 10 members. The FWUA representative shall be appointed by the SLDMWA Chairman upon recommendation from the FWUA, and the FWUA alternate representative shall be appointed in the same manner. At any point in the budget approval process, a budget or a budgetary issue may be remanded back to the OM&R Technical Committee, which shall diligently meet to reconsider the matter and provide its recommendation.

4. SLDMWA Committee Structure. All matters pertaining to the OM&R budget and the OM&R Program shall be addressed by the FAC and/or OM&R Technical Committee. The SLDMWA shall not alter that delegation of responsibility or the structure/composition of that committee and subcommittee while this MOU is in effect without the consent of the FWUA; provided, that the FWUA shall not withhold such consent in the event the SLDMWA wishes to form new committees or subcommittees to deal with OM&R budgetary and/or OM&R Program matters if the FWUA is entitled to participate on such committees or subcommittees by representation and with voting rights that are equivalent to the rights described in this MOU. Reorganizations of committee structure that do not affect the FWUA participation on OM&R budgetary and/or OM&R Program matters, such as splitting off Administrative matters or other non-OM&R budgets, shall not be affected by the terms of this MOU.

B. Provision of Information

The SLDMWA shall share with the FWUA in a timely manner all relevant information available regarding SLDMWA OM&R budgets; actual OM&R costs incurred, including but not limited to power costs; water deliveries; and all similar information that affects the OM&R budget, the OM&R Program, the SLDMWA Cost Plan, and adjusting estimated costs to actual. All such information shall be provided to the FWUA as soon as reasonably practical.

1. Reports. The SLDMWA shall provide such information by means of its final draft and final Budgets and any Budget Addenda on OM&R; monthly Financial Report, including budget-to-actual expenditures; USBR and/or SLDMWA Water Delivery Reports; and such other reports as may be developed for such purposes from time to time.

2. Access. The FWUA shall be afforded access to inspect SLDMWA records on the same terms as are provided to the USBR pursuant to Article 14(a) of the SLDMWA Transfer Agreement.

C. Notices and Meeting Dates

The SLDMWA shall give the FWUA, its designated representatives and the designated alternate for each timely notice of all meetings of the FAC and OM&R Technical Committee. All information and notices provided to the FWUA by the SLDMWA shall be provided in at least the same detail, and at the same time, as the comparable information and notices provided to SLDMWA members or their representatives participating in the same decision-making. To facilitate FWUA participation as described herein, the SLDMWA shall use its best efforts to establish regular meeting dates for committees and subcommittees that deal with the OM&R Program or any OM&R-related issue on dates that do not conflict with regularly-scheduled FWUA meeting dates, to coordinate meeting dates for special meetings of such committees or subcommittees with the schedules of FWUA representatives, and to permit the FWUA to participate by telephone or other electronic means, and the FWUA shall use best efforts to make its representatives available for such participation.

VI. RESOLUTION OF DISPUTES

A. Process

Disputes relating to interpretation or performance of this MOU shall be resolved according to the process described in this Article.

1. Informal Dispute Resolution. Should any dispute arise between the SLDMWA and the FWUA concerning any matter that is the subject of this MOU, the party raising the disputed issue shall promptly give written notice to the other, and the parties shall thereafter diligently meet and confer in good faith in an effort to resolve the issue. The notice shall contain the date the dispute arose, an explanation of the issue, and the name, address and telephone and fax numbers of the disputing party's representative who should be contacted by the responding party. Each party shall make available, at such party's expense, such policy-level staff members, technical staff, consultants, or Board members as are reasonably necessary to the equitable and expedient resolution of the issue. At any time during this process, either party may request that the Regional Director of the USBR participate in the process to facilitate the resolution, and the other party shall accept such participation if it is provided.

2. Resolution through Trial by Reference. In the event the parties have not reached agreement on resolution of the disputed issue by the first anniversary of the date of the notice described in Section VI.A.1., with or without the assistance of the Regional Director as facilitator, either party may file suit in the Superior Court of Fresno County for proceedings in accordance with Section 638 *et seq.* of the Code of Civil Procedure; provided that the procedure for such reference shall be modified as follows:

- a) Each party shall name one person to serve as referee within 10 days of the date of the Court's order granting the petition for reference, and within 10 days of their selection the two persons so named shall name a third person to serve as referee. If they are unable to agree on a third person, the Court shall appoint the third person. All referees shall have general familiarity with the OM&R of water conveyance facilities and the CVP.
- b) A hearing of the matter before the referees shall be conducted as expediently as possible.
- c) The referees shall issue a draft report of their findings within 20 days after the testimony is closed.
- d) Within 10 days after the date of mailing the draft report, any party may file objections to it with the referees.
- e) If no objection is filed to the draft report, it shall be filed forthwith with the Court. If an objection to the draft report is filed, the referees shall file their final report with the Court within 20 days of the date the objection is filed.
- f) The report of the referee shall be subject to review by the Court upon exception thereto being filed with the Court within 10 days after the filing of the final report by the referees; provided, no exception to the report shall be considered unless it appears that the matter of the exception was presented to the referees in the form of an objection. The Court shall hear the objection at the first available law and motion calendar at least 28 days after the exception was filed.
- g) The report filed by the referee shall be prima facie evidence of the facts therein reported, but the Court may hear such evidence as may be offered by any party to rebut the report, and render the court's own decision.
- h) If no objection to the referees' report is filed with the Court, the report of the referees upon the whole issue shall stand as the decision of the Court.

B. Disputes Causing Cash Flow Difficulties

The parties recognize that circumstances could arise in which the non-payment of amounts due could create material cash flow difficulties for one of the parties. In the event a dispute results in the non-payment of obligations owed to the SLDMWA by the FWUA or a demand from the FWUA for payment by the SLDMWA at such time or in such amount that the

other party becomes unable to reasonably meet its cash flow needs through the terms of this MOU and Article 11(c) of the SLDMWA Transfer Agreement or the FWUA Transfer Agreement, as applicable, the affected party shall not be obligated to pursue the Informal Dispute Resolution described in Section A.1. of this Article VI for a period of longer than ten (10) days, at which time it shall be entitled to commence a court proceeding pursuant to Section A.2. of this Article VI.

C. Status of Obligations During Pendency of Dispute

During the period of any dispute between the parties affecting payment obligations under this MOU, any disputed payments shall continue to be made during the pendency of the dispute as they had been made prior to such dispute, and any changes resulting from the resolution of the dispute shall be implemented by retroactive adjustment of amounts paid to the date when the dispute arose, as indicated on the notice required in Section A.1. above, unless the parties agree upon an alternate adjustment period.

D. Termination of Transfer Agreements

The parties acknowledge that they each have a right to terminate their respective Transfer Agreement on 12 months notice under Article 2(c) thereof, and that a material dispute relating to the interpretation or performance of this MOU, or the unsatisfactory resolution thereof, could lead to such a termination. In order to facilitate mutually acceptable resolution of disputes and reduce the possibility of a termination of either the FWUA Transfer Agreement or the SLDMWA Transfer Agreement, the parties agree that neither of them will give notice of termination of a Transfer Agreement under Article 2(c) thereof for a period of 12 months after the date of the notice described in Section A.1. of this Article VI; provided, that if matters unrelated to any such dispute arise which cause a party to desire termination, such notice may be sooner given.

VII. RENEGOTIATION PRINCIPLES

A. Basis for Agreement

This MOU, including the SLDMWA Cost Plan and Reserve Criteria, represents the parties' negotiated agreement on an equitable apportionment of the OM&R Costs to be incurred by the SLDMWA. In entering into this MOU, the parties have assumed that the water supplies and operations of the parties' respective members will not materially change while this MOU is in effect and that there will be no material change in the use of or access to facilities utilized by the parties and their members after the effective date hereof. Further, they have assumed the accuracy of financial data provided and/or developed by the USBR and the SLDMWA in connection with the negotiation of this MOU, the SLDMWA Cost Plan and Reserve Criteria. The parties acknowledge that all such assumptions were material to their respective decisions to reach the agreements described herein, in the SLDMWA Cost Plan and in the Reserve Criteria, and agree that in the event any of those assumptions proves to be incorrect, or upon the occurrence of certain other events described in Section VII.B., renegotiation of this MOU, the SLDMWA Cost Plan and/or Reserve Criteria is appropriate.

B. Events Triggering Renegotiation of MOU

Should a party conclude that this MOU, including the SLDMWA Cost Plan and Reserve Criteria, can and should be modified to address (i) such party's determination that one or more of the fundamental assumptions described in Section VII.A. was in error, (ii) an administrative or court order materially affecting the water supply or operations of one or more of the agencies comprising such party, or which makes it reasonably foreseeable that such agency(ies) will thereafter suffer a material and adverse change in its/their water supply or operations, or (iii) another significant event which makes it reasonably foreseeable that such party will bear a material increase in OM&R Costs on a per acre foot basis, the parties commit to entering into negotiations in good faith and timely efforts to modify this MOU, the SLDMWA Cost Plan or Reserve Criteria, as applicable.

C. Inability to Reach Agreement on Modification of MOU

In the event a party seeks modification of this MOU pursuant to Section A. of this Article VII, neither party shall give notice of termination of its Transfer Agreement pursuant to Article 2(c) thereof for 12 months after the first negotiation date; provided, that if matters unrelated to the event giving rise to the party's request for modification of this MOU arise which cause a party to desire termination, such notice may be sooner given. Following such 12 month period, either party shall be free to exercise its right to terminate its Transfer Agreement under Article 2(c) thereof if a mutually acceptable modification of this MOU has not been developed.

VIII. MISCELLANEOUS

A. Term of MOU

This MOU shall remain in effect until it is terminated by the mutual agreement of the parties; provided, that this MOU shall automatically terminate without further action of the parties upon the termination of either the FWUA Transfer Agreement or the SLDMWA Transfer Agreement. Upon any termination of this MOU, the SLDMWA Cost Plan shall also terminate. In that regard, the parties acknowledge that the agreements described herein, and particularly the agreements contained in the SLDMWA Cost Plan, are part of a negotiated and comprehensive arrangement which reflects numerous compromises and tradeoffs by the parties. Accordingly, no aspect of this MOU or the SLDMWA Cost Plan is to be construed as precedent, and all aspects thereof must be renegotiated if this MOU is terminated.

B. Attorneys Fees

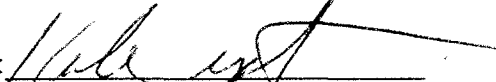
In the event of any action by any of the parties seeking enforcement or interpretation of any of the terms and conditions of this MOU, including without limitation any action commenced under Article VI, the prevailing party in such action shall be awarded, in addition to damages, injunctive or other relief, its reasonable costs and expenses including, without limitation, taxable costs and reasonable attorneys' fees.

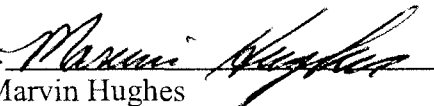
C. Entire Agreement

This MOU and its exhibits contain all of the agreements of the parties hereto with respect to the subject matter hereof. No other prior agreement or understanding pertaining to any such matter shall be effective for any purpose. No provisions hereof may be amended or modified in any manner whatsoever except by an agreement in writing signed by duly authorized representatives of each of the parties hereto.


IN WITNESS WHEREOF, the parties have executed this MOU as of the date first above written.

FRIANT WATER USERS AUTHORITY

By: 
Kole Upton, Chairman

By: 
Marvin Hughes
Secretary

SAN LUIS & DELTA-MENDOTA
WATER AUTHORITY

By: 
Michael Stearns, Chairman


By: 
Daniel G. Nelson, Secretary

EXHIBIT A

SETTLEMENT CONTRACTORS

The following contractors shall be entitled to receive, without charge, the designated acre feet of water through the Project Facilities as stated below or as may be amended.

	Contract #	Acre Feet
Parties to that certain <i>Second Amended Contract for Exchange of Waters with the United States</i> dated February 14, 1968 or their successors, namely, Central California Irrigation District, Firebaugh Canal Company, Columbia Canal Company, and San Luis Canal Company	Ilr-1144	840,000
Coelho Trust	14-06-200-7859A	1,332
Fresno Slough	14-06-200-4019A	866
James Irrigation District	14-06-200-700-A	9,700
M.L. Dudley and Company, John G. Indart, and Doris J. Indart	14-06-200-4448A	2,280
Melvin D. Hughes and Mardella Hughes	14-06-200-3537A	93
Patterson Water District	14-06-200-3598A	6,000
Reclamation District No. 1606	14-06-200-3802A	342
Tranquility Irrigation District	14-06-200-701A	20,200
State of California (Mendota Wildlife Area)	14-06-200-4359A	1,143
State of California (Traction Ranch)	14-06-200-7859Z	1,321
Total		883,277

EXHIBIT B

SLDMWA OM&R COST RECOVERY PLAN

I. INTRODUCTION – The following is a description of the allocation and recovery of operation, maintenance and replacement costs for the following facilities by the San Luis and Delta Mendota Water Authority:

1. The Delta-Mendota Canal (hereinafter “DMC”);
2. The Tracy Pumping Plant (hereinafter “Tracy PP”);
3. The O’Neill Pumping/Generating Plant (hereinafter “O’Neill PGP”);
4. The Mendota Pool;
5. The federal share of the San Luis Joint Use conveyance and conveyance pumping facilities; and
6. The San Luis Drain.

This SLDMWA OM&R Cost Recovery Plan is an exhibit to the First Amended and Restated *Memorandum of Understanding Between the Friant Water Users Authority and San Luis & Delta-Mendota Water Authority Relating to Allocation, Collection and Payment of Operation, Maintenance & Replacement Costs for Water Delivered Through Certain Central Valley Project Facilities* (hereinafter the “MOU”). The MOU defines the terms and conditions for allocating and recovering the costs associated with the OM&R of the above referenced facilities.

Friant Division Contractors shall be obligated to pay the OM&R Costs associated with the delivery of Settlement Water to the Settlement Contractors. The FWUA shall, as part of the FWUA cost recovery methodology developed under the FWUA Transfer Agreement, provide for the recovery of OM&R Costs allocated to the Settlement Contractors under this SLDMWA OM&R Cost Recovery Plan. To the extent the USBR has conferred upon the FWUA the legal

authority to do so, the FWUA shall allocate such costs among, and collect such costs from, the Friant Division Contractors. For ease in representation and for practical considerations, and for the purposes of the MOU and this SLDMWA OM&R Cost Recovery Plan only, Friant Division Contractors will be considered a single CVP Contractor whose water deliveries constitute the total Settlement Water deliveries of the Settlement Contractors. The USBR will be allocated the costs associated with the delivery of Other Water under the provisions of the SLDMWA Transfer Agreement, except to the extent that such Other Water is specifically attributable to another party (e.g. non-CVP water delivered under a Warren Act contract wherein the Warren Act contractor shall be allocated applicable OM&R Costs). For purposes of completeness, OM&R costs of the San Luis Drain are allocated in this SLDMWA OM&R Cost Recovery Plan, but no part thereof shall be allocated, under the Cost Recovery Plan, to the Friant Division Contractors.

II. DEFINITIONS – As used herein, the following terms have the meanings as set forth below. To the extent the following terms are used in the MOU, their definitions are restated here for convenience:

1. CVP Contractors: Parties that receive water pursuant to Water Delivery Contracts or that receive Other Water as said terms are defined in Article 1 of the SLDMWA and FWUA Transfer Agreements.
2. SLDM Contractors: CVP Contractors that receive water via any of the Project Facilities described in the SLDMWA Transfer Agreement.
3. Friant Division Contractors: CVP Contractors receiving water service from the Friant Division of the Central Valley Project, including members and non-members of the FWUA.

4. FWUA Transfer Agreement: That certain *Agreement to Transfer the Operation, Maintenance and Replacement, and Certain Financial and Administrative Activities of the Friant-Kern Canal and Associated Works* effective March 1, 1998, as amended.
5. OM&R: Operation, maintenance and replacement as that phrase is defined in the SLDMWA Transfer Agreement.
6. OM&R Costs: Costs of providing OM&R for the Project Facilities pursuant to the SLDMWA Transfer Agreement, including without limitation conveyance pumping costs associated therewith.
7. Project Facilities: The physical works and appurtenances associated with the Tracy Pumping Plant, the Delta-Mendota Canal, the O'Neill Pumping /Generating Plant, the federal share of the associated O'Neill Forebay and Dam, the Mendota Pool, the federal share of San Luis Unit Joint Use conveyance and conveyance pumping facilities and the San Luis Drain.
8. Settlement Contractors: Those contractors, listed in Exhibit A of the MOU, entitled to receive water service through the Project Facilities without charge.
9. Settlement Water: Water the Settlement Contractors are entitled to receive without charge from Project Facilities.
10. SLDMWA: The San Luis & Delta-Mendota Water Authority.
11. SLDMWA Transfer Agreement: That certain *Agreement to Transfer the Operation, Maintenance and Replacement, and Certain Financial and Administrative Activities Related to the San Luis and Delta-Mendota*

Canals, Tracy Pumping and O'Neill Pumping/Generating Plant, San Luis Drain and Associated Works effective March 1, 1998, as amended.

12. USBR: United States Department of Interior, Bureau of Reclamation.
13. Year: March 1 through February 28/29.

III. COST POOLS - OM&R Costs shall be accumulated into six cost pools, defined as the Upper DMC and Tracy PP cost pool (hereinafter "Upper Cost Pool"), the Lower DMC/Mendota Pool cost pool (hereinafter "Lower Cost Pool"), the San Luis Joint Use conveyance and conveyance pumping facilities cost pool (hereinafter "DWR Cost Pool"), the Tracy PP power cost pool (hereinafter "Tracy Power Cost Pool"), the O'Neill PGP cost pool (hereinafter "O'Neill Cost Pool") and the San Luis Drain

A. The Upper Cost Pool includes:

1. The OM&R Costs for the Tracy PP and related Tracy field office facilities, excluding energy costs.
2. The OM&R Costs for the DMC from the Tracy PP to Check 13 (hereinafter "Upper DMC");
3. The OM&R Costs for the Westley, Newman, and Volta Wasteways; and
4. The OM&R Costs for the intake channel from the Tracy Fish Facility to the Tracy Pumping Plant.

B. The Lower Cost Pool includes:

1. The OM&R Costs for the DMC from Check 13 to (but not including) the Mendota Pool (hereinafter "Lower DMC");
2. The OM&R Costs for the Mendota Pool; and
3. The OM&R Costs for the Firebaugh Wasteway.

- C. The DWR Cost Pool includes the federal share of the OM&R Costs of the San Luis Joint Use conveyance and conveyance pumping facilities and the energy costs incurred in pumping water at the Dos Amigos Pumping Plant. The DWR costs associated with the OM&R costs of the O'Neill Forebay and Dam are included in the O'Neill Cost Pool and, therefore, are not included in the DWR Cost Pool.
- D. The Tracy Power Cost Pool includes the energy costs incurred at the Tracy PP and related Tracy field office facilities.
- E. The O'Neill Cost Pool includes:
1. The OM&R Costs for the O'Neill PGP;
 2. The OM&R Costs for the O'Neill PGP intake upstream of Check 13 from the DMC to the O'Neill PGP;
 3. The energy costs, net of regeneration credits, incurred in pumping water at the O'Neill PGP; and
 4. The DWR OM&R Costs for the federal share of the O'Neill Forebay and Dam.
- F. The San Luis Drain Cost Pool includes:
1. The OM&R of the San Luis Drain; and
 2. The Maintenance of the Kesterson Reservoir, except that maintenance activity relating to the Cleanup Program as defined in the Bureau of Reclamation, U.S. Department Interior Repayment Report, Kesterson Reservoir Cleanup Program and San Joaquin Valley Drainage Program, February 1995 shall be assigned in accordance with the Report.

The OM&R Costs for the DMC shall be allocated between the Upper Cost Pool and Lower Cost Pool pro rata based on miles of DMC serviced above and below Check 13 (70/116 or 60.34 percent in the Upper Cost Pool and 46/116 or 39.66 percent in the Lower Cost Pool).

IV. COST ALLOCATION TO SLDM CONTRACTORS— The OM&R Costs assigned each Year to each of the cost pools described above will be allocated to SLDM Contractors using the facilities described above for each cost pool in accordance with the following methodology:

- A. Upper and Lower Cost Pools – Costs accumulated in the Upper and Lower Cost Pools will be allocated to each SLDM Contractor based upon the SLDM Contractor’s cost allocation percentage. The cost allocation percentage for the Upper and Lower Cost Pools shall be determined by dividing a SLDM Contractor’s “delivery base” by the total delivery base for all SLDM Contractors sharing in each cost pool. The delivery base for each SLDM Contractor shall be computed for the Upper Cost Pool and the Lower Cost Pool as the greater of the actual water delivered to the SLDM Contractor utilizing that cost pool’s facilities during the Year, or the amount established under the Minimum Participation requirements described in Section V.A. hereof.
- B. DWR Cost Pool - Costs within the DWR Cost Pool shall be sub-allocated into two cost pools, defined as the North of Dos Amigos Cost Pool and the South of Dos Amigos Cost Pool.
 1. The North of Dos Amigos Cost Pool includes the federal share of the DWR OM&R Costs associated with the San Luis Canal north of the Dos Amigos Pumping Plant.
 2. The South of Dos Amigos Cost Pool includes the federal share of the

DWR OM&R Costs associated with the San Luis Canal south of the Dos Amigos Pumping Plant, the federal share of the DWR OM&R Costs associated with the Dos Amigos Pumping Plant, and the energy costs incurred at the Dos Amigos Pumping Plant.

OM&R Costs for the North of Dos Amigos Cost Pool and South of Dos Amigos Cost Pool shall be allocated to the SLDM Contractors directly utilizing the facilities in each such cost pool. The percentage of costs allocated to each such SLDM Contractor shall be determined by dividing the total water deliveries to such SLDM Contractor utilizing the Project Facilities in each cost pool by the total water deliveries to SLDM Contractors utilizing such facilities during the Year.

- C. Tracy Power Cost Pool - Costs within the Tracy Power Cost Pool shall be allocated to those SLDM Contractors whose water is made directly available by virtue of water being pumped at the Tracy PP. The percentage of costs allocated to each such SLDM Contractor shall be determined by dividing the total water deliveries made available to each such SLDM Contractor, as described above in this sub-article (C) by the total of all such water deliveries made available. Minimum Participation requirements as described in Section V.A. shall not apply to the allocation of the Tracy Power Cost Pool.
- D. O'Neill Cost Pool – Each Year, the O'Neill Cost Pool will be sub-allocated between two cost pools, the "Direct Pumping Cost Pool" and the "Storage Pumping Cost Pool" as follows:

1. For purposes of allocating the O'Neill Cost Pool between the Direct Pumping Cost Pool and Storage Pumping Cost Pool only, water deliveries made during the Year through the San Luis Joint Use or San Felipe facilities will be deemed water delivered in the Direct Pumping Cost Pool and water released from the O'Neill Forebay through the O'Neill PGP into the DMC will be deemed water delivered in the Storage Pumping Cost Pool.
2. The O'Neill Cost Pool shall be sub-allocated to the Direct Pumping Cost Pool and the Storage Pumping Cost Pool pro rata based upon the percentage obtained by dividing each respective pools' share of water deemed delivered, during the Year as described above, against the sum of the two pools' water deliveries during the Year.
3. The Direct Pumping Cost Pool shall be further sub-allocated to SLDM Contractors taking delivery of water directly from the San Luis Joint Use or San Felipe facilities during the Year based upon the percentage obtained by dividing the water delivered to a SLDM Contractor utilizing the O'Neill PGP for water deliveries through the federal share of the San Luis Joint Use facilities or the San Felipe facilities by the total water deliveries utilizing the O'Neill PGP for water deliveries through the federal share of the San Luis Joint Use facilities and the San Felipe facilities during the Year.
4. The Storage Pumping Cost Pool shall be further sub-allocated to SLDM Contractors taking delivery of water directly from the DMC or Mendota

Pool facilities based on the percentage obtained by dividing the water delivered directly from the DMC or Mendota Pool facilities to such SLDM Contractor by the total water delivered directly from the DMC or Mendota Pool facilities to SLDM Contractors during the Year.

None of the allocations described above for the O'Neill Cost Pool shall be subject to the Minimum Participation requirements as described in Section V.A.

- E. San Luis Drain Cost Pool - The maintenance costs assigned to the San Luis Drain Cost Pool shall be allocated to those CVP Contractors with contractual requirements for the payment of such maintenance costs, except that maintenance activity relating to the Cleanup Program as defined in the Bureau of Reclamation, U.S. Department Interior Repayment Report, Kesterson Reservoir Cleanup Program and San Joaquin Valley Drainage Program, February 1995 shall be assigned in accordance with the Report.

V. MISCELLANEOUS COST ALLOCATION PROVISIONS

- A. Minimum Participation – In recognition of the value of providing OM&R even in Years when an individual SLDM Contractor's pro rata share of costs based upon that Year's water deliveries is very low or non-existent, there will be created Minimum Participation amounts of assumed minimum water deliveries, for purposes of cost allocation only, as follows:

1. In Years when San Joaquin River flood flows partially or fully meet the Settlement Water delivery demands of any of the Settlement Contractors, the Settlement Contractors' allocation of the Upper Cost Pool shall be based on the actual deliveries of Settlement Water to the Settlement

Contractors utilizing the Upper Cost Pool facilities or 60 percent of the aggregate of all Settlement Contractors' maximum contractual Settlement Water entitlement, whichever is larger. Provided, however, this Minimum Participation amount shall be reduced by the amount of Settlement Water transferred from the Settlement Contractors to other SLDM Contractors. Provided, further, that no such reduction shall be made in the event that the SLDM Contractor receiving the transferred water has at least the majority of its contractual water supply delivered for irrigation purposes (hereinafter "SLDM Irrigation Water Contractor") and the SLDM Irrigation Water Contractor has a total water supply, including CVP water, transferred water and any non-CVP water delivered using Project Facilities, of less than 25 percent of its contractual maximum for that Year. Accordingly, in determining the Minimum Participation requirement associated with the Settlement Water, transfers of Settlement Water by a Settlement Contractor to a SLDM Irrigation Water Contractor shall reduce the Settlement Contractors' Minimum Participation amount by the lesser of the amount of Settlement Water transferred or the amount of the total water supply delivered to a SLDM Irrigation Water Contractor less 25 percent of the maximum contractual entitlement of that SLDM Irrigation Water Contractor, but not less than zero. The portion of the Lower Cost Pool to be allocated to the Settlement Contractors will be based on total actual Settlement Water deliveries made to the Settlement Contractors through the Lower DMC and/or the Mendota Pool. Thus, the

Settlement Water deliveries that originate as flood flows on the San Joaquin River and delivered through the Mendota Pool and/or the Lower DMC shall be included in the Settlement Contractors' delivery base for allocation of the Lower Cost Pool. (Examples: A Settlement Contractor transfers 10,000 a.f. of water to a SLDM Irrigation Water Contractor which has a maximum contractual entitlement of 100,000 a.f. in a Year in which 45% of the Settlement Water deliveries to the Settlement Contractors are made via the San Joaquin River and Mendota Pool (i.e., the Project Facilities associated with the Upper Cost Pool are not utilized), thus invoking this Minimum Participation clause. For purposes of these examples, the maximum contractual Settlement Water entitlement is presumed to be 880,000 a.f., thus 60% (the Minimum Participation applicable to Settlement Water) of the maximum contractual Settlement Water entitlement is presumed to be 528,000 a.f. **Scenario A:** If a SLDM Irrigation Water Contractor takes water deliveries, including contractual supplies, water transferred in from a SLDM Contractor other than a Settlement Contractor, and any non-CVP water (e.g., Warren Act water),(collectively "total water supply") in excess of 25% (25,000 a.f.) of the SLDM Irrigation Water Contractor's contractual maximum supply, the Minimum Participation applicable to the Settlement Contractors under this will be reduced by 10,000 a.f (60% of the total Settlement Water equals 528,000 a.f. less 10,000 a.f. of transferred water results in the Minimum Participation applicable to the Settlement Contractors of 518,000 a.f.).

Scenario B: If the same 10,000 a.f. of water is transferred by the Settlement Contractor and the total water supply (excluding this 10,000 a.f. of Settlement Water transferred) of the SLDM Irrigation Water Contractor is 21,000 a.f., the Minimum Participation applicable to the Settlement Contractors under this section will be reduced by 6,000 a.f. (4,000 a.f. of the transferred water is required to bring the total water supply of the SLDMW Irrigation Water Contractor to 25% (25,000 a.f.) of its maximum contractual supply; thus only the amount of the Settlement Water transferred that results in the SLDM Irrigation Water Contractor to exceed 25% (25,000 a.f.) of its maximum contractual supply will result in the reduction of the Minimum Participation applicable to the Settlement Contractors under this section: 21,000 a.f. total water supply plus 10,000 a.f. Settlement Water transferred (equals 31,000 a.f.) less 25,000 a.f. (25% of the 100,000 a.f. maximum contractual supply) equals 6,000 a.f.)

Scenario C: If the same 10,000 a.f. of water is transferred by the Settlement Contractor and the total water supply of the SLDM Irrigation Water Contractor, including the Settlement Water transfer, is less than 25,000 a.f. (25% of the 100,000 a.f. maximum contractual entitlement), then no reduction in the Minimum Participation will be provided to the Settlement Contractors as a result of this transfer. **Scenario D:** If the same 10,000 a.f. of water is transferred to a non-SLDM Irrigation Water Contractor (i.e., an M&I contractor or the USBR) under any water supply scenario, the Minimum Participation will be reduced by the amount of the

Settlement Water transfer, i.e., a 10,000 a.f. reduction of the 528,000 a.f., (60% of 880,000 maximum contractual Settlement water to the Settlement Contractors) results in a Minimum Participation of 518,000 a.f.)

2. In Years when a SLDM Irrigation Water Contractor's total deliveries (i.e. deliveries under its contract with the USBR plus other deliveries made available through the Tracy PP and the DMC) are below 25 percent of its maximum contractual entitlement, the delivery base for purposes of allocating the Upper Cost Pool and Lower Cost Pool shall be 25 percent of that SLDM Irrigation Water Contractor's maximum contractual entitlement.

- B. Water Transfers –A SLDM Contractor who receives transfer water (hereinafter “SLDM Transferee”) from a CVP Contractor shall have such water deliveries included in the SLDM Transferee's delivery base for each applicable cost pool described in Section I. above for purposes of allocating OM&R Costs for the Year (but not for delivery purposes in establishing reserves). As a result, all costs associated with the delivery of transferred water shall be allocated to the SLDM Transferee in the same manner as costs are allocated to the SLDM Transferee for its CVP contractual supply and shall be subject to Year end adjustment and reconciliation per Section VII.D. below.

- C. Warren Act Contracts –

1. All costs associated with the conveyance of non-CVP water through Project Facilities, whether pursuant to a contract under the Warren Act , authorized pursuant to Section 3408(c) of the Central Valley Project

Improvement Act, or under other authority, shall be assigned to the SLDM Contractor that takes delivery of such water. As a result, all costs associated with the delivery of non-CVP water shall be allocated to the SLDM Contractor in the same manner as costs are allocated to that SLDM Contractor for its CVP contractual supply and shall be subject to Year end adjustment and reconciliation per Section VII.D. below. In the case of non-CVP water deliveries to the Settlement Contractors, the Settlement Contractors, not the Friant Division Contractors, will be responsible for all costs associated with the delivery of the non-CVP water, including an allocable share of the OM&R Costs and reserve costs (Section VI.D.) addressed by this SLDMWA OM&R Cost Recovery Plan.

2. Losses - A loss factor of 5 percent, or as may be provided in the Warren Act contract, shall be applied to the delivery of any non-CVP water conveyed in any Project Facilities (e.g. 100 acre feet of non-CVP water pumped at Tracy PP, or as otherwise metered, shall result in 95 acre feet being considered available for delivery and will be allocated costs accordingly).

VI. RESERVES - In recognition of the multiple year benefits of performing certain long-term OM&R activities for Project Facilities (excepting the San Luis Joint Use conveyance and conveyance pumping facilities), including, but not limited to, the long-term capital outlays for the purchase of equipment and vehicles and reserves mandated by the SLDMWA Transfer Agreement, the SLDMWA shall accumulate reserves and regularly use these reserves for these activities in accordance with the following:

- A. Annually, a Ten-Year projection of reserve expenditures will be made. The reserve expenditure projections will be discounted to arrive at a levelized annual reserve contribution. The discount rate will be determined annually based on the previous year's annualized LAIF interest rate. This annual contribution will be allocated to each SLDM Contractor pro rata based upon the past Ten-Years of historic water deliveries.
- B. Each SLDM Contractor's total Ten-Year historical deliveries will include all CVP contractual deliveries, CVP water transferred out to other SLDM Contractors and non-CVP water deliveries to that SLDM Contractor and will be subject to the inclusion of the annual Minimum Participation amounts as determined in Section V.A above. Ten-Year historical deliveries will not include CVP water transferred in by the relevant SLDM Contractor nor CVP water transferred out by the SLDM Contractor which does not utilize Project Facilities for which costs are allocated hereunder.
- C. In any one Year, reserve expenditures may benefit some facilities or cost pools more than others. However, in the long-term, it is expected that reserves will be spent generally in accordance with the overall apportionment of the OM&R budget for each facility as that facility's OM&R budget relates to the entire OM&R budget (without consideration or inclusion of the cost of energy, the OM&R Costs of the San Luis Joint Use conveyance and conveyance pumping facilities, or costs associated with the San Luis Drain).
- D. One-time or de minimis use of Project Facilities (i.e., the delivery of water under a Warren Act contract to an individual or entity that otherwise has no other water

delivery contract) will be charged an imputed rate for reserves based upon the annual reserve contribution computed in VI. A. divided by one tenth of the past 10-Years of historic deliveries computed in VI. A. Such one-time or de minimis water deliveries will not be included in any water delivery base in the determination of reserves or reserve allocation hereunder. Revenues generated to reserves for this one-time or de minimis use of Project Facilities will be used to reduce that Year's total reserve requirement. Reserve contributions from one-time or de minimis use of Project Facilities shall not be subject to annual reconciliation and adjustment.

VII. RATE COMPONENT CALCULATIONS

Rate components shall be established for each cost pool listed in Section III on a per acre foot basis. Rate components shall be calculated in accordance with the Cost Allocation to SLDM Contractors in Section IV using budgeted amounts for the Year for each cost pool divided by projected water deliveries utilizing the Project Facilities and/or energy associated with the applicable cost pool for the Year. The Reserve rate component shall be computed by dividing each SLDM Contractor's annual contribution, in accordance with Section VI. A., by projected water deliveries to that SLDM Contractor for the Year.

VIII. PAYMENT AND RECONCILIATION

- A. Amounts payable for water delivered to SLDM Contractors each calendar month shall be computed by multiplying the sum of the rate components (Rate) applicable to water deliveries by the quantity (acre feet) of such water deliveries scheduled for the month, adjusted for differences between actual and scheduled deliveries, at the applicable Rate, for prior months.

- B. The SLDMWA will bill the FWUA to provide for recovery of OM&R Costs allocated to the Settlement Contractors which are payable by the Friant Division contractors pursuant hereto.
- C. Payments due under this SLDMWA OM&R Cost Recovery Plan for water deliveries shall be made in advance. All payments must be received by the SLDMWA by the 15th of the month prior to the month of such scheduled water deliveries. Notification of electronic transfer of funds payments to the SLDMWA shall be provided in advance of or concurrent with such payment.
- D. Payments received after the due dates noted above are delinquent and shall be subject to an interest charge, as well as to any remedies for deficiencies provided in Article 11 of the SLDMWA and FWUA Transfer Agreements and IV.B. of the MOU. The interest charge shall be calculated pursuant to the Prompt Payment Act, as amended (31 USC 3901, et seq.). The interest charge will be based upon any and all accumulated advance payment deficiencies. Interest shall accrue for each day past the due date and shall be accumulated based upon a 360 day year (interest shall compound on a simple interest basis).
- E. Annual reconciliation and adjustment of the OM&R Costs and their allocation to each SLDM Contractor will be made within 90 days of the end of each Year, excepting the DWR Cost Pool and Tracy Power Cost Pool, which will be reconciled and adjusted within 90 days of when the actual costs are known.
- F. Reconciled and adjusted OM&R Cost allocations applicable to each SLDM Contractor, including annual reserve amounts, shall be compared to payments made by or on account for each SLDM Contractor for water deliveries during the

Year. In the event payments made by or on account of a SLDM Contractor exceed costs allocated to that SLDM Contractor (surplus), the SLDMWA will refund the amount of the surplus to the payee or the payee may direct the SLDMWA to apply such surplus to amounts otherwise due under this SLDMWA Cost Recovery Plan. In the event costs allocated to the SLDM Contractor exceed payments made by or on account of a SLDM Contractor (deficiency), the payee shall have 30 days from the notice of such deficiency to make payment. Payments not received within 30 days shall be subject to the late payment provision as described in Section VII. B above starting on the date of delinquency, as well as subject to any remedies for deficiencies provided in Article 11 of the SLDMWA and FWUA Transfer Agreements and IV.B. of the MOU.

- G. The SLDMWA will apply funds to cover deficiencies paid by the USBR under appropriate legal instruments in accordance with terms outlined in Section 11 of the SLDMWA Transfer Agreement.
- H. The FWUA will collect and remit payments due for OM&R Costs allocated to Settlement Contractors under this SLDMWA OM&R Cost Recovery Plan in accordance with the terms of this section. The FWUA will apply funds to cover deficiencies paid by the USBR under appropriate legal instruments in accordance with terms outlined in Section IV of the MOU and Section 11 of the FWUA Transfer Agreement.

EXHIBIT C

RESERVES

In recognition of the long term benefits associated with certain OM&R activities, expenditures meeting the criteria established below shall be made from reserve funds accumulated for such purposes.

Reserve Categories:

Extraordinary OM&R

Major non-routine maintenance improvements, modifications, replacements or repairs with long term benefits, exceeding one year, that have a total cost greater than \$20,000, including labor and labor related costs (e.g., liner replacement, structure painting, road repairs/rehab, building and structure construction and/or remodeling, pump/generator rewinds and repairs).

Equipment and Vehicles:

Mobile or stationary equipment with a purchase price exceeding \$15,000 (e.g., pumps, compressors, trailers, generators, motors, control mechanisms);

Heavy equipment with a purchase price exceeding \$20,000 (e.g., dump trucks, cranes, loaders, excavators, motor graders, forklifts, tractors, belly dumps);

Passenger/utility vehicles with a purchase price exceeding \$15,000 (e.g., sedans, pickups, utility vehicles, vans); and Office and electronic equipment and computer software with an annual aggregate purchase price exceeding \$20,000 (e.g., computers and peripherals, copiers, printers, telecommunications, radios, electronic instrumentation-excepting replacement parts, upgrades or peripherals with a purchase price of less than \$1,000, e.g., monitors, modems, keyboards, hard drives, RAM, mother boards, printer drums, repairs)

Emergency Reserves:

As mandated per Article 13 of the General Form Agreement for the Transfer of the Operation, Maintenance, and Replacement, and Certain Financial and Administrative Activities of the Delta-Mendota Canal and Related Works, between the United States Department of Interior Bureau of Reclamation and the San Luis & Delta-Mendota Water Authority.

Other:

As may be recommended for the OM&R of the Project Facilities by the Finance Committee and determined as necessary and approved by the Board of Directors of the San Luis & Delta-Mendota Water Authority

EXHIBIT D

CONTRACTOR SERVICE (DELIVERY) AREAS

	Upper DMC	Lower DMC	Mendota Pool	San Felipe	San Luis Joint Use
Banta-Carbona Irrigation District	✓				
Centinella Water District	✓				
Del Puerto Water District	✓				
Patterson Water District	✓				
Plain View Water District	✓				
West Side Irrigation District	✓				
West Stanislaus Irrigation District	✓				
City of Tracy	✓				
Broadview Water District		✓			
Eagle Field Water District		✓			
Mercy Springs Water District		✓			
Oro Loma Water District		✓			
Pacheco Water District		✓			✓
Panoche Water District		✓			✓
San Luis Water District		✓			✓
Widren Water District		✓			
Fresno Slough			✓		
Hughes, M&M			✓		
James Irrigation District			✓		
Laguna Water District			✓		
Reclamation District # 1606			✓		
Traction Ranch			✓		
Tranquillity Irrigation District			✓		
Westlands Water District			✓		✓
Santa Clara Valley Water District				✓	
San Benito County Water District				✓	
Exchange Contractors					
Central California Irrigation District	✓	✓	✓		
Firebaugh Canal Company		✓	✓		
Columbia Canal Company			✓		
San Luis Canal Company			✓		
City of Coalinga					✓
City of Avenal					✓
City of Huron					✓
Refuge	✓	✓	✓		✓

Attachment C

Hydrologic Modeling Analysis Summary

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Attachment C: Hydrologic Modeling Analysis Summary

1.0 Intertie Benefit Estimation Process

The latest modeled projection of CVP operations with the Intertie in place has indicated an increase in long term average annual water deliveries of approximately 28,000 AF as a result of constructing the Intertie (**Table 1**). Of this, approximately 22,000 AF has been demonstrated to benefit south-of-Delta agricultural contractors, approximately 1,000 AF to benefit north-of-Delta contractors, and approximately 5,000 AF to benefit Cross Valley Canal (CVC) water contractors.

Table 1. Summary of estimated water supply delivery benefits with the Intertie facility

Estimated Intertie Benefits*	
Beneficiary	Amount (AF)
south-of-Delta Agricultural	22,200
North-of-Delta Contractors	1,200
Cross Valley Contractors	4,400
Total	27,800

*Benefit estimations were made using the CalSim II hydrologic model, updated March 2013.

Absent several years of actual delivery history, proposed costs initially allocated to each contractor are based on contract maximum delivery amounts. Actual delivery data will be added as delivery history is established. The water supply benefits are calculated by Reclamation using the CalSim model. CalSim is a generalized water resources simulation model for evaluating operational alternatives of large, complex water resources problems within the CVP and SWP.

CalSim II modeling studies were completed as part of the EIS/EIR for the Intertie (Reclamation, 2009) and have been updated as necessary. Water supply benefits presented in the Final EIS for the Intertie were updated using CalSim models current as of May 2012. The CalSim modeling studies used in the Final EIS were consistent with assumptions used in the OCAP Biological Assessment CalSim II Study 8.0 (May 2008). The updated water supply benefits were based on improved CalSim models which were being used by Reclamation's Planning Division for a variety of studies in early 2012. These models were themselves based on CalSim studies used by DWR for the Bay-Delta Conservation Plan (BDCP), but with additional corrections and changes in assumptions which were deemed appropriate for current Reclamation planning studies. Many of the differences between the 2008 and 2012 models are corrections and updates made to improve the accuracy of the CalSim II model. By far the most significant change in assumptions was the incorporation of the Reasonable and Prudent Alternatives (RPAs) contained in the 2008/2009 Biological Opinions from US Fish and Wildlife Service and Natural Marine Fisheries Service.

This CalSim modeling study formed the basis for the quantification of project benefits which are to be used for the final allocation of project construction and OM&R costs. The assumptions and results of the modeling studies are presented in the sections that follow. For an in depth description of the modeling one can refer to Appendix B of the EIS/EIR (Reclamation, 2009).

1.1 Overview of CALSIM II Studies

Two CalSim II modeling studies were developed to analyze the Intertie using assumptions consistent with the OCAP Biological Assessment (BA) CalSim II Study 8.0 (May 2008). The Future No Action alternative study was developed to represent a 2030 level of development (LOD) using essentially the same hydrologic inputs and assumptions that are being used for the CalSim II modeling developed for the OCAP BA.

The Intertie alternative study was developed to simulate the project. This study is at the same LOD as the Base study and includes the same CVPIA (b)(2) and EWA actions as the Base Study (existing conditions).

1.2 Study Methodology and Assumptions

CalSim II is a general-purpose simulation model of the combined CVP/SWP systems as well as a host of smaller water supply entities with which the CVP/SWP systems interact. A geographically comprehensive model, CalSim II includes the Sacramento River basin, the San Joaquin River basin, and the Delta, as well as portions of the Tulare Basin and Southern California. CALSIM II provides a platform for assessing changes in Delta water quality and water supply operations of the CVP and SWP projects. All water supply evaluations of the Intertie presented in this report utilized the CalSim II model.

Simulation of the Intertie enables CVP water pumped at Jones PP to be wheeled through the CA and subsequently returned to CVP control in O'Neill Forebay. From the O'Neill Forebay, the water can be delivered directly to CVP SOD contractors (including wildlife refuges) or stored in San Luis Reservoir for subsequent delivery

1.2.1 Comparison of Intertie Alternative with Future No Action

In the modeling studies the Intertie was assumed to be operable in all months of the year up to full capacity, but actual use was limited to periods in which there was CVP water that could not be conveyed under existing capacities. The long-term average annual Intertie use was shown to be 76 TAF/yr. The months of highest use are September through March (**Figure 1**). July and August also show various amounts of Intertie use. The Intertie facility enables Jones PP to be operated at its maximum capacity in months that the upper DMC restrictions would not have otherwise enabled this to occur. This increase in maximum Jones PP operable capacity is shown in the **Figure 2**. The Intertie facility use appears to be rather well distributed across all hydrologic years. The facility is used in all years of the study, which can be explained by noting that even in the driest sequence of years, there are a number of months of surplus flows that can be captured through the use of the Intertie.

Figure 1. Monthly average Intertie flows (TAF) under 2030 LOD

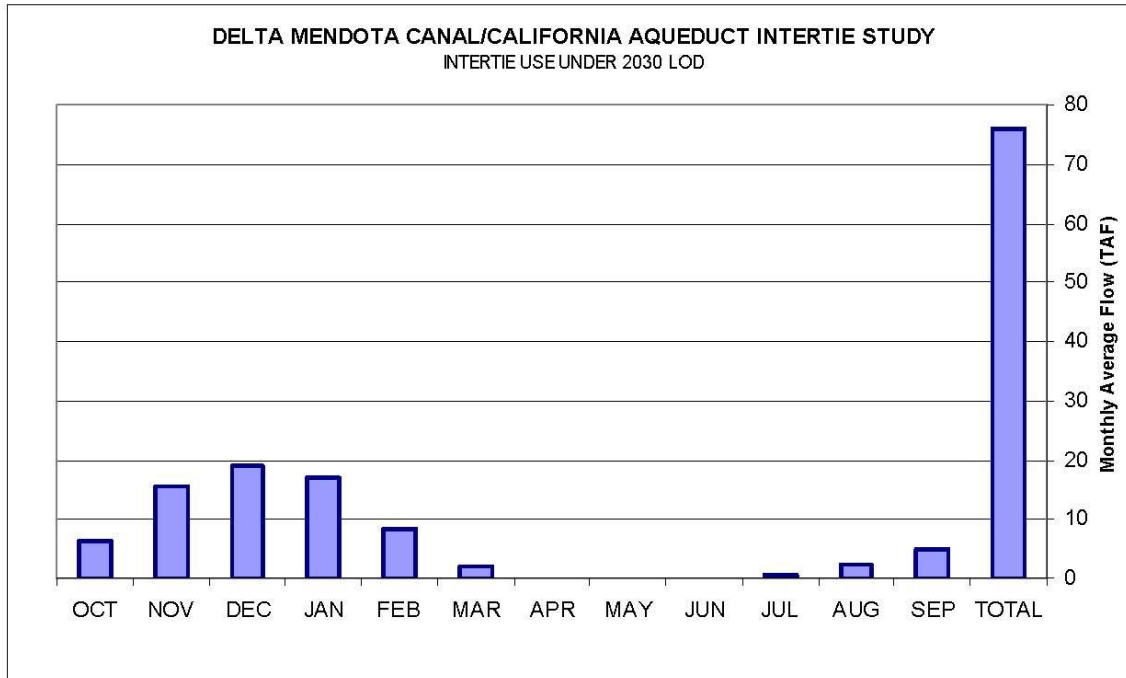
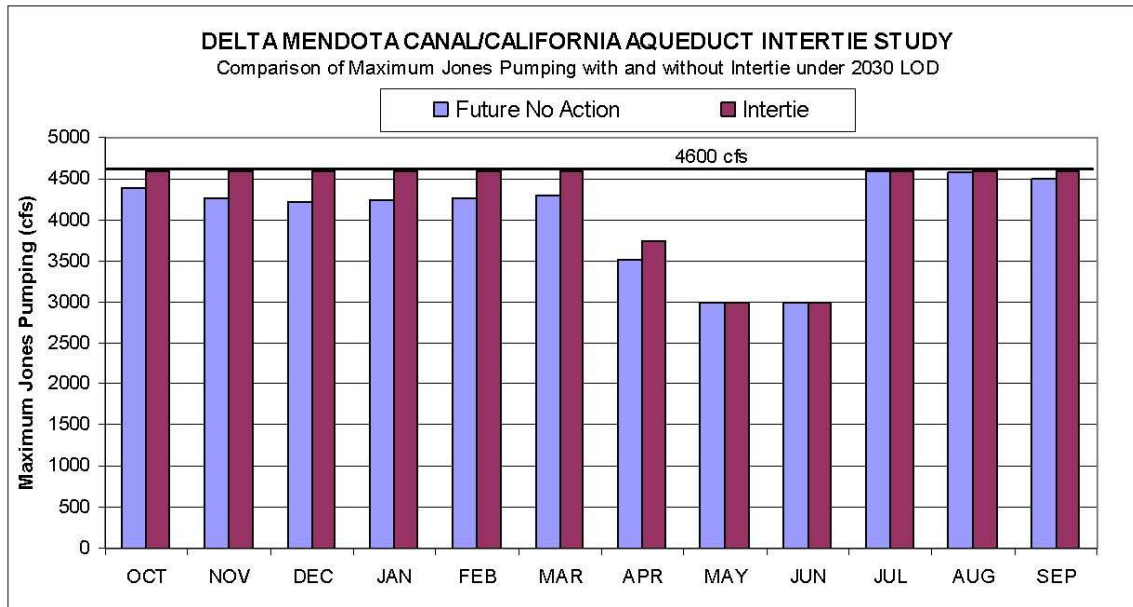


Figure 2. Monthly maximum Jones PP pumping (cfs) under 2030 LOD



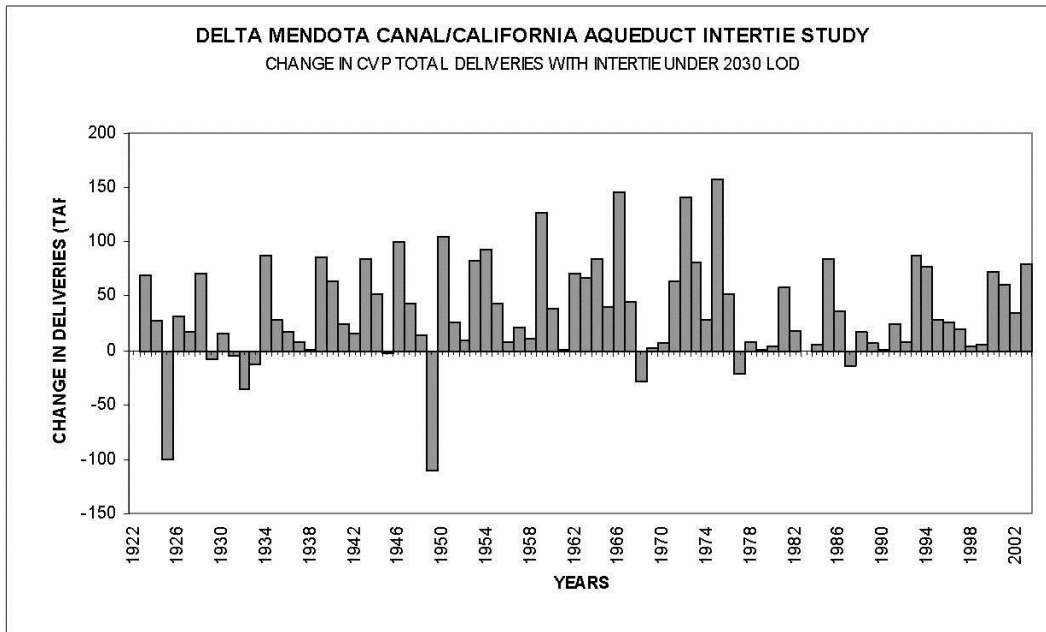
1.3 Water Supply Impacts

The restored CVP export capacity provided by the Intertie results in changes to deliveries, and these are summarized by **Table 2** and **Figure 3**. The average annual CVP delivery benefit from the Intertie is approximately 28 TAF/yr. The plot **Figure 3** shows annual changes in CVP total deliveries for the Intertie study compared to the Future No Action (2030 LOD Base). Note that the CVP delivery increase is less than the actual Intertie usage. The reason for this difference is that the Intertie reduces the need for the CVP use of Banks PP (termed joint point of diversion, JPOD).

Table 2. Change in water supply deliveries with Intertie under 2030 LOD (TAF/year)

Intertie Benefit - CALSIM 2012 Model Results			
Benefit Category	82-Year Average (1922-2003)		
	Base (AF)	Alternative (AF)	Change (AF)
CVP Delivery NOD	2384	2385	1
CVP Delivery SOD (NO CVC)	2303	2325	22
CVC Wheeling	63	67	5
CVP Delivery TOTAL	4749	4777	28

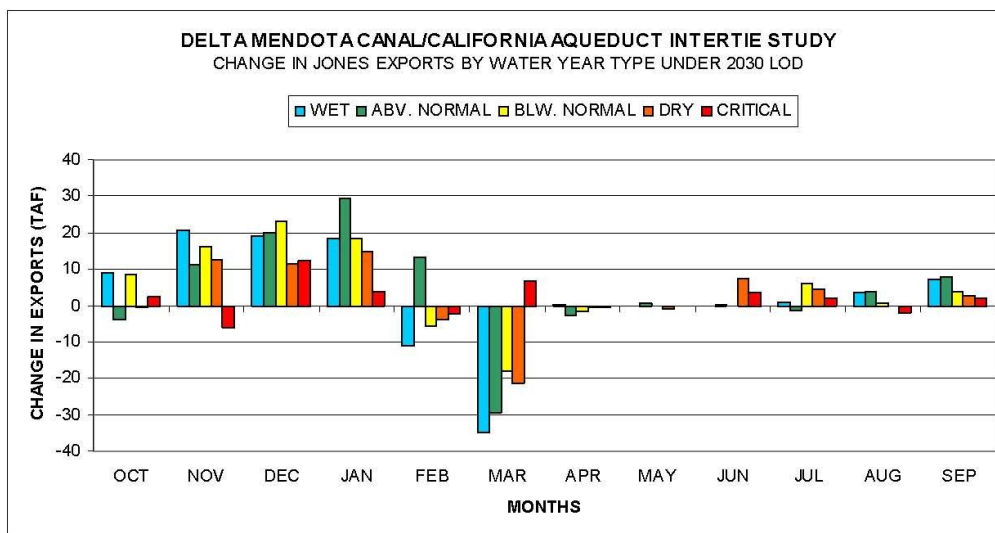
Figure 3. Change in CVP deliveries with the Intertie



1.4 Export Impacts

Figure 4 shows the average changes to Jones PP pumping by month for each of the five 40-30-30 Sacramento Valley water year types. Jones PP pumping shows increases in October through January and to a lesser extent in June through September. Noteworthy is the decrease in March pumping at Jones due to the restored ability to fill CVP San Luis earlier in the year. This implies that the CVP has restored some operational flexibility that may allow the project to operate more effectively around periods of export restrictions. The study shows substantial benefit of the Intertie in most water year types. In critical years, as expected due to low Delta flows and low allocations, there is less benefit from increased Jones pumping due to the Intertie.

Figure 4. Monthly change in Jones PP exports with Intertie by water year type under 2030 LOD



1.5 San Luis Reservoir Operations

The Intertie conveyance allows water to reach San Luis during the winter months filling cycle where capacity was previously constrained. The CALSIM studies showed overall increases in CVP San Luis storage levels during the filling period. Increases in March CVP San Luis storage due to the Intertie occur in approximately 50% of all years. August CVP San Luis storage is somewhat reduced in a number of wet years with high carryover storage. The reduction in August storage is largely due to more effective delivery allocation scheduling caused by earlier filling.

In many of these years, earlier filling of CVP San Luis (before May) allows higher allocations to be made for CVP SOD contractors. The higher allocations, which continue throughout the delivery year, cause more water to be moved from CVP San Luis storage for delivery.