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Managing Water in the West

Central Valley Project (CVP)

Water Ratesetting Overview (Ratesetting 101)

December 2007

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U.S. Department of the Interior
Bureau of Reclamation

CVP Water Ratesetting Overview

- **Welcome**
- **Why are we here?**
 - **Review Water Ratesetting Policies for the Central Valley Project**
 - **Develop an understanding of the Process**

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Agenda

- **Policy Development Process**
 - **Background**
 - **Key Dates**
 - **Notable Differences**
 - **Explanation of Key Issues/Concepts**
- **Technical Presentation**
 - **Discussion - Issue Clarification**
- **Questions**
- **Closing**

Policy Development - Background

- **Why were Water Ratesetting Policies Needed?**
 - Contracts were coming up for renewal; time was running out
 - Finalize historical accountings of contractor operations
- **What is the repayment status of CVP as of 9/30/05, after 59 years of operations?**
 - **\$141 million deficit @9/30/05** (*\$136 million - M&I, \$5 million - Irrigation*)
 - **\$278.9 million (or 21.8%) capital repayment @ 9/30/05 out of costs totaling \$1.279 billion** (*75 million / \$151 million - M&I; \$204 million / \$1.128 billion -Irrigation*)
- **How did deficit occur?**
 - Long-term Fixed Rate (non-adjustable) Contracts

Policy Development – key dates

Jan 1981	Draft Ratesetting policy covering both irrigation and M&I water released for public review and comment. Public workshops and hearing were subsequently conducted
OCT 1982	Reclamation Reform Act (RRA) of 1982 enacted. Passage of the RRA required significant changes in the 1981 draft policy and resulted in the Central Valley Project (CVP) irrigation and M&I ratesetting policies being developed and proposed separately
Apr 1984	Revised draft irrigation ratesetting policy released for public review and comment. Public workshops and hearings were conducted
Oct 1984	Revised draft of M&I ratesetting policy released for public review and comment. Public workshops and hearings were conducted, but efforts were curtailed in order to finalize the irrigation ratesetting policy.
OCT 1986	Public law 99-546 enacted. This law introduced new repayment requirements for the CVP, including automatic rate adjustment provisions in all new or amended contracts and the determination of individual contractor deficit balances
MAY 1988	Irrigation ratesetting policy was approved. Development of the M&I ratesetting policy was reinitiated.
6/27/90	Region submitted draft M&I water ratesetting policy to Deputy commissioner's office (Denver) for review and comment on environmental aspects of the proposed policy.

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Policy Development – key dates

Dec 1990	OIG begins review of Draft Policy
7/16/91	OIG issues “Final Audit Report on Proposed Municipal and Industrial Water Ratesetting Policy, Central Valley Project”. This report states that Reclamation’s response was insufficient to resolve the four recommendations and requests Reclamation reconsider and clarify its position on each of the recommendations.
3/14/95	Assistant Secretary – Water and Science, Elizabeth Ann Rieke, approves proposed policy for implementation.
5/18/95	Region is advised that IG’s Office has removed all subject audit recommendations from their tracking system and they are considered implemented/closed.

Policy Development – Notable differences

- M&I is an approved interim policy.
- M&I is entirely interest bearing (Capital and deficits; Irrigation is interest bearing only on deficits after October 1, 1985.
- Application of Revenue
- Voluntary Payment Policy
- Treatment of Interest Expense
- Minimum Rate (M&I only)

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Key Issues/Concepts

- **Cost Recovery**
 - Principles
 - Repayment Period
 - Legislation
- **Application of Revenues**
- **Voluntary Payment Policy**

Cost Recovery – Principles

- **Recovery of Costs**
- **Honors Existing Contracts**
- **Equitable - based on use of System**
- **50 - Year Repayment Period**

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Cost Recovery – 50-Year Repayment Period

- **Deliveries commenced 1949, end of repayment period 2030; 83 years;**
- **Originally used “Rolling Repayment” concept;**
- **Abandoned “Rolling Repayment” in 1980, CVP considered complete when New Melones was placed in service 1980; repayment period set at 1981-2030;**
- **PL 99-546 Reaffirmed 2030 as end of repayment period**

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Cost Recovery - Laws

Act of August 26, 1937

- **Reauthorized CVP under Reclamation Law**
- **Additional units authorized under later legislation**
- **Additional unit authorization consistently contained language for operational and financial integration of CVP facilities**

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Cost Recovery - Laws

Reclamation Project Act of August 4, 1939

- Basis for marketing most CVP water
- Includes most provisions for CVP water service contractors
- Provides authority for setting rates to cover costs

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Cost Recovery - Laws

P.L. 99-546 - 1986

- Reaffirmed 2030 as end of repayment period
- Required annual rate adjustments in new & renewed contracts
- Established interest rate formula for deficits
- Required provisions for paying past deficits
 - Key to individual contractor deficit policy used in both Irrigation and M&I policies

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Application of Revenues

	Irrigation	M&I
Current Year O&M Expenses	1	1
Interest Expense	2	2
O&M Deficits	3	4
Capital Repayment	4	3

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Voluntary Payment Policy

- **Background**
- **Timing of Policy**
 - *Irrigation - October 2, 1987*
 - *M&I - August 6, 1992*
- **Option 1 - Pay Current Year Deficit**
- **Option 2 - Pay Historic Accumulated Deficits**
 - *Irrigation - By Year and Applicable Interest Rate*
 - *M&I - By Accumulated Balance & Composite Interest Rate*
- **Requirements to Qualify for Program**
 - *Irrigation - Pay at least O&M Rate for Water*
 - *M&I - Pay at least OM&I Rate for Water*

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Technical Presentation

- **Background**
- **Cost Allocation**
- **Cost Components (Pools)**
- **Cost Recovery**
- **2007 Water Rate Ranges**

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Cost Components (Pools) Background

- **CVP is a system of 20 Dams and Reservoirs, 500 miles of major canals, hydro power plants and pumping plants**
- **CVP is integrated operationally and financially**
- **CVP Capital and Operation and Maintenance costs are pooled and repayment is based on services received**

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Cost Allocation

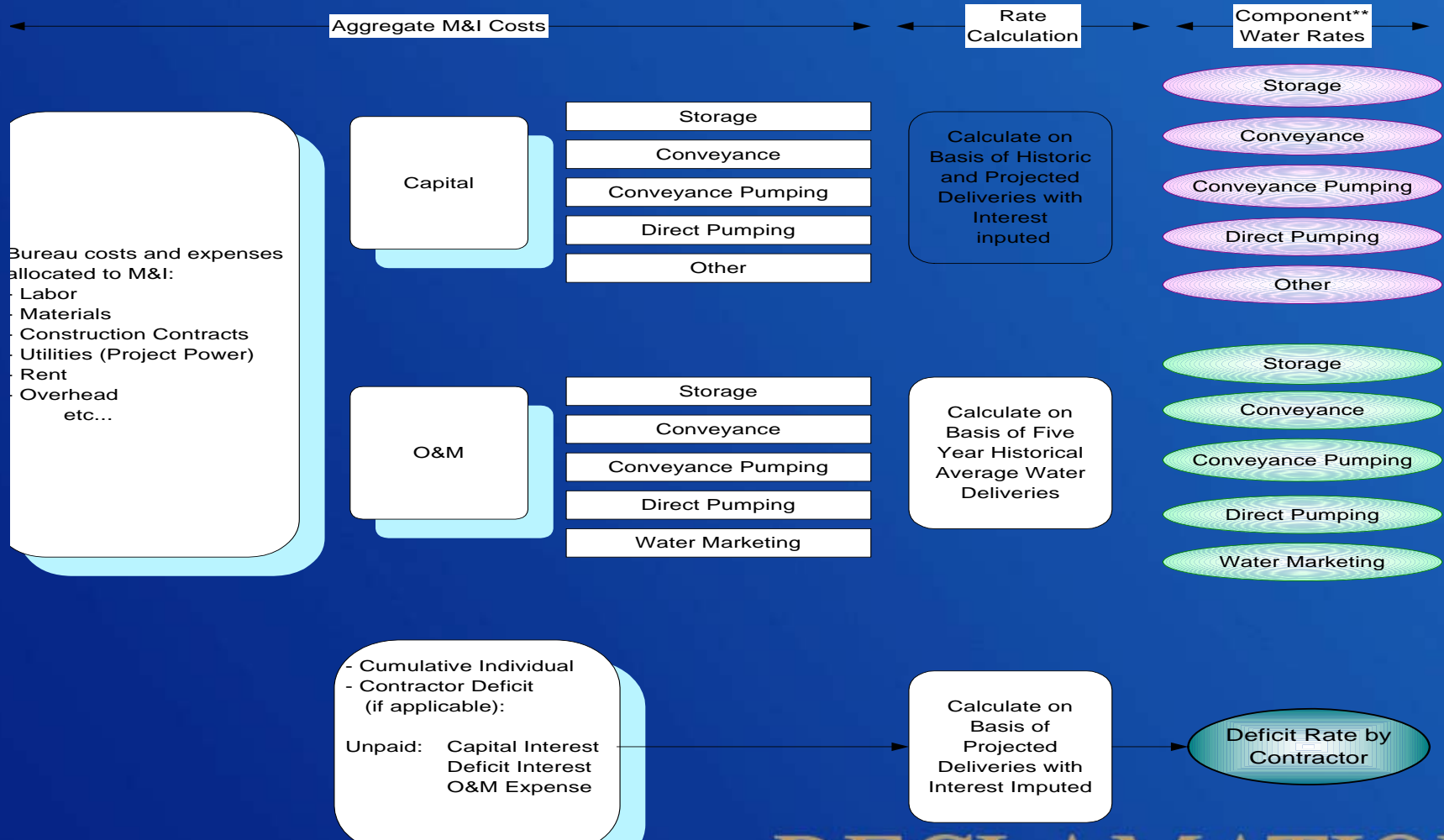
- Each CVP facility is allocated to project purposes and identified within the cost pooling concept ... the most common ones are:
 - Water Supply
 - Flood Control
 - Hydro Power
- Allocation results determine costs to be reimbursed (Irrigation and Municipal and Industrial) by CVP water contractors

Cost Components (Pools)

- Like or similar facilities are identified into cost components (or pools) which correspond to the services provided to water contractors by Reclamation, for example:
 - Storage Component - includes most CVP-wide Dams & Reservoirs (Shasta, Trinity, Folsom, New Melones and Friant)
 - Conveyance Component – includes CVP-wide conveyance facilities (Tehama-Colusa Canal, Delta-Mendota Canal, San Luis Canal and Friant-Kern Canal)

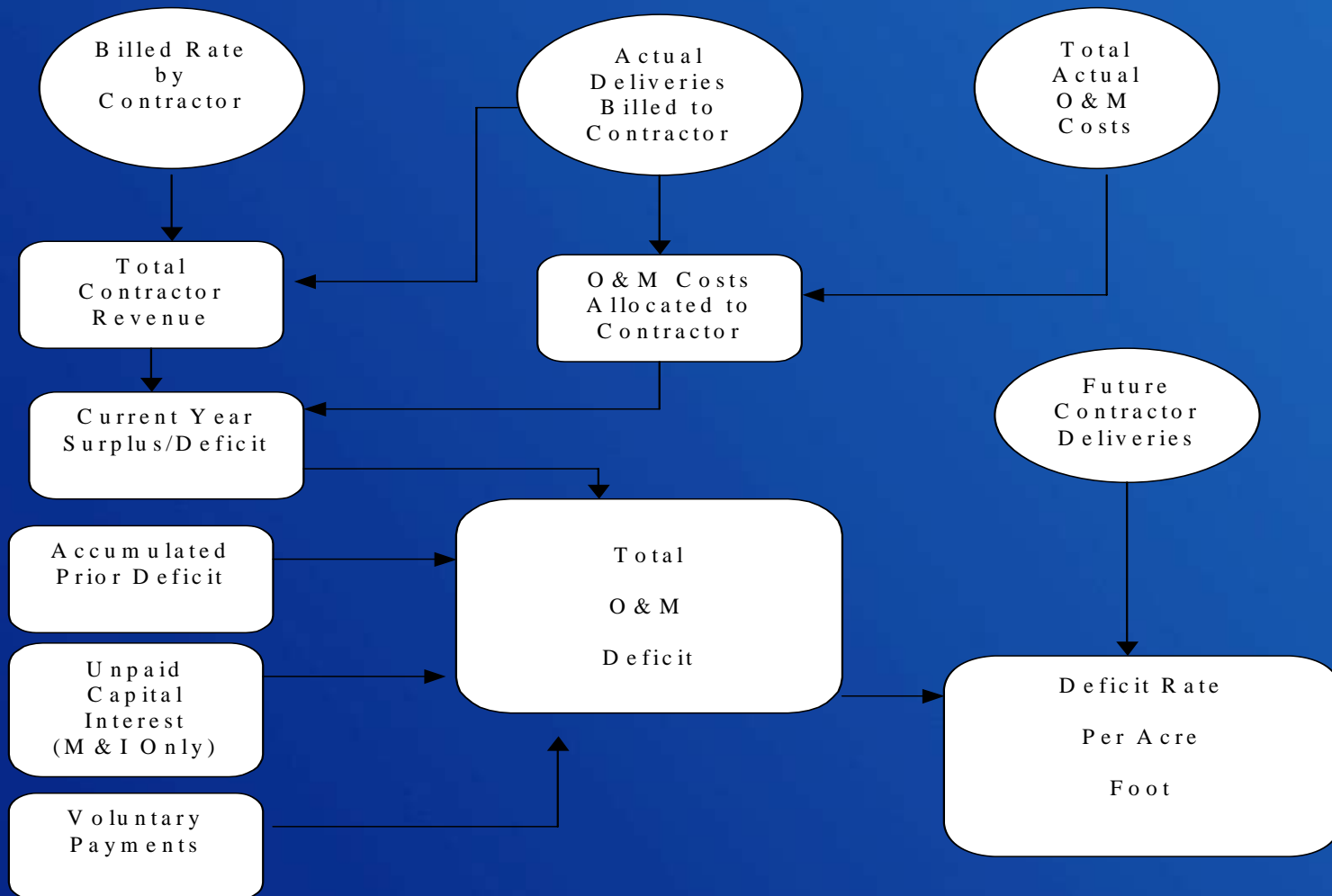
Ratesetting Overview

Central Valley Project M&I Component Ratesetting Overview



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Schematic of O&M Deficit Calculation



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Capital Costs – Project Facilities in Service at September 30, 2005 (Millions)

Bureau of Reclamation	\$ 3,095
Western Area Power Administration	<u>277</u>
Total Costs	\$ 3,372

Allocated to <u>Irrigation</u> for Repayment	\$ 1,128
Amount Repaid	<u>204</u>
Unpaid Balance	\$ 924

Allocated to <u>M&I</u> for Repayment	\$ 151
Amount Repaid	<u>75</u>
Unpaid Balance	76

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Capital Costs Allocated to the Irrigation Function at September 30, 2005 (Millions)

Storage	\$ 390
Conveyance	399
Conveyance	136
Pumping	
Direct Pumping	111
San Luis Drain	59
Other	<u>36</u>
Total Capital Costs	<u>\$1,131</u>

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2007 Capital Rate for a Sacramento River Contractor

Total Irrigation \$1,131 Billion

Allocated to:

Storage \$ 390 Million

Other \$ 36 Million

1981-2030 Deliveries:

Storage 130 Million AF

Other 158 Million AF

Component Cost Per AF

Storage \$2.97 AF

Other \$.23 AF

Total \$3.20 AF

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2007 Capital Rate for Contractor A

Component Cost Per AF

Storage	\$2.97 AF
Other	<u>.23 AF</u>
Total	\$3.20 AF
H&P Deliveries (1981-2030)	3,000 AF
Allocated Capital	\$9,600
Repayment to Date	\$0
Projected Deliveries (2007-2030)	1,500 AF
Capital Rate Per AF	\$6.40 AF

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Estimated FY 2007 Irrigation O&M Costs

<u>Component</u>	<u>Estimated 2007 Costs</u>
Storage	\$ 20,438,112
Conveyance (Direct bill)	775,034
Water Marketing	21,339,978
Kesterson	817,083
Conveyance Pumping (Direct bill)	11,430,981
Direct Pumping	<u>1,237,338</u>
Total	<u>\$ 56,038,526</u>

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Projected FY 2007 O&M Rate Contractor A

Projected Irrigation Costs \$56.0 Million

Allocated To:

Water Marketing \$21.3 Million
Storage 20.4 Million

Projected 2007 Deliveries:

Water Marketing 3.1 Million AF
Storage 2.7 Million AF

Component Cost Per AF:

Water Marketing \$ 6.87 AF
Storage \$ 7.55 AF
Total \$14.42 AF

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2007 Deficit Rate Contractor A

Interest Bearing Deficit	\$12,005
Composite Interest Rate	7.447%
Remaining Years to Payout	24
Annual Repayment Required	\$1,088
Average Annual Deliveries	156 AF
Rate Per AF	<u>\$ 6.98 AF</u>

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2007 Cost of Service Rate Contractor A

Capital Rate	\$ 6.40 AF
O&M Rate	14.42 AF
Deficit Rate	<u>6.98 AF</u>
Total	<u><u>\$27.80 AF</u></u>

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Annual Net Results of Operations

- A Contractor's surplus/deficit is determined annually by comparing the contractor's current year revenues with current year allocated operation, maintenance and interest (M&I only) expenses

- Revenues less than current year allocated expenses result in deficits. *A hypothetical example of this process is shown below:*

Revenues - Contractor A (1,000 AF @ \$11.15 AF)		\$11,150
O&M Expenses - Contractor A		
Water Marketing	\$5,500	
Storage	8,000	
Interest (M&I only)	<u>N/A</u>	
Total O&M Expense		<u>\$13,500</u>
Net Surplus (Deficit) - Contractor A		(\$2,350)

- Annual deficits are combined with any prior outstanding deficit balance (if any) to determine the contractor's updated deficit balance.

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Cost Recovery

- **CVP Capital and Operation and Maintenance costs allocated to Irrigation and Municipal and Industrial are to be reimbursed by CVP water contractors.**
- **Current costs are to be reimbursed by year 2030 (end of repayment period)**
- **CVP Irrigation and Municipal and Industrial water rates (Cost of Service) are calculated annually based on services received.**

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2007 Water Rate Ranges

- **Irrigation**
 - From \$7.14 to \$56.72 per acre-foot
- **Municipal and Industrial**
 - From \$9.00 to \$76.67 per acre-foot

MP-3400 Website:

www.usbr.gov/mp/cvpwaterrates

- **CVP Irrigation and M&I Ratesetting Policies**
- **Most Current 4 years CVP Irrigation, M&I and Special water rate books**
- **CVP Voluntary Payment Policies**
- **CVP 2001 Cost Allocation Final Report**
- **Applicable Laws**

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Questions?

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