



— BUREAU OF — RECLAMATION

Department of the Interior, Bureau of Reclamation, Central Valley Project, California

Municipal & Industrial Water Ratesetting Policy



APPROVAL AND FINALIZATION OF MUNICIPAL & INDUSTRIAL WATER RATESSETTING POLICY:

On December 31, 2020, Assistant Secretary of the Interior, Water and Science signed a memorandum finalizing the Municipal and Industrial Water Ratesetting Policy.

Below is the final Policy.

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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PURPOSE AND BACKGROUND

The purpose of this policy (Policy) is to present the procedures and methodologies utilized in calculating water rates for the Central Valley Project (CVP) Municipal and Industrial (M&I) water service contractors under the Component with Individual Contractor Deficits Ratesetting Method and to provide a brief history of the CVP. Also included is a description of the cost allocation procedures used in the CVP, a description of many of the premises included in the ratesetting method and a detailed description of the procedures utilized in computing water rates under the Component with Individual Contractor Deficits Ratesetting Method. This Policy will be applied prospectively from the date of approval.

Background

The CVP was first authorized by the California Legislature as a State project. Approved by the Governor on August 5, 1933, the CVP immediately became the subject of a State referendum petition which required that the CVP be approved by the electorate. The election was held in December 1933, and the CVP was approved by the voters.

State officials then turned to the problem of financing the CVP. The State Legislature had authorized the sale of public bonds as a means of financing the construction of the CVP, but the public bonds were found to be unmarketable. Requests for Federal grants and loans to aid in the financing of the CVP were submitted and turned down. Because of the Financing difficulties, State officials then asked the Federal Government to undertake construction of the CVP.

CVP Legislative History

With the Rivers and Harbors Act of 1935, the federal government assumed control of the project and its initial features were authorized for construction by the U.S. Army Corps of Engineers. Funds for construction of the initial features of the Central Valley Project were provided by the Emergency Relief Appropriation Act of 1935 (49 Stat. 115). The Act authorized the U.S. Army Corps of Engineers to construct the following project facilities: the Shasta, Keswick, and Friant Dams, the Tracy Pumping Plant, the Delta-Mendota and Friant-Kern Canals, and the Contra Costa Canal and related facilities.

Funds for construction of the initial features of the Central Valley Project were provided by the Emergency Relief Appropriation Act of 1935 (49 Stat. 115). The project was authorized by a finding of feasibility by the Secretary of the Interior and approved by the President on December 2, 1935, for construction by Reclamation.

Congressional reauthorization of the initial CVP facilities under Reclamation law was provided for in Section 2 of the River and Harbors act of August 26, 1937 (50 Stat. 844) and in the River and Harbors Act of October 17, 1940 (54 Stat. 1198). Since then, the Congress has authorized the construction and operation of several additional CVP units, divisions and facilities.

Water supplies produced by the CVP are marketed primarily pursuant to the Reclamation Project Act of August 4, 1939 (53 Stat. 1187). This Act provides the basic concepts and provisions included in all CVP repayment and water service contracts. In addition, the Acts of July 2, 1956 (Public Law 84-643, 70 Stat. 483) and June 21, 1963 (Public Law 88-44, 77 Stat. 68) contain provisions applicable to the renewal of Federal Reclamation waters service contracts.

History of CVP Water Ratesetting Policies

The first CVP water service contracts were executed by Reclamation during the late 1940's. The initial CVP water rate structure consisted of a graduated scale, ranging from \$2.00 per acre-foot for irrigation water in the Sacramento Valley (near the source of supply) to \$3.50 per acre-foot for irrigation water service in the San Joaquin Valley (south of the Delta formed by the Sacramento and San Joaquin Rivers). The same water rates applied to all of the contractors in each service area regardless of the contract date. While contracts did not include provisions for rate changes, uniform contract expiration dates were used in some service areas in order to facilitate service area contract negotiations upon renewal.

By the mid-1960's, the repayment status of the CVP indicated that water rates for both irrigation and M&I water service contracts were insufficient to recover both increasing annual O&M costs and the capital investment costs for the CVP within the prescribed terms of the contract. Reclamation honored the terms of the then-existing contracts and withheld any action to adjust the fixed-rate or impose any additional charge or rate for those contracts to recover the accumulated O&M deficits pending contract renewal. However, Reclamation did require that any new contracts include provision for rate adjustments to promote the recovery of Reclamation's escalating cost of operations.

In 1986, Congress enacted the Coordinated Operations Act (COA) (P. L. No. 99-546, 100 Stat. 3050-56) which included several provisions for addressing the CVP cost recovery deficiency. In particular:

- **Section 105** established 2030 as a firm repayment deadline for contractors to repay all construction costs and O&M deficits existing as of 1986 and required contracts to include provisions for adjusting rates if it is found that the rate in effect may not be adequate to recover Federal investment.
- **Section 106** established specific requirements for calculating individual contractor O&M deficits and required the Secretary of the Interior include provisions in each new or amended CVP contract for recovery of such accumulated O&M deficits.

Although Interest-Bearing O&M Deficit balances existing through 1986 are authorized to be recovered through 2030, O&M deficits identified for routine O&M expenses after 1986 may be recovered through 2035.

To ensure compliance with P.L. 99-546, Reclamation needed to develop water ratesetting policies for both irrigation and M&I contractors. Due to the earlier renewal of irrigation contracts, completion of an irrigation ratesetting policy took precedence over development of the M&I ratesetting policy. On May 4, 1987, the Assistant Secretary of the Interior for Water and Science (AS/WS) proposed the Component with Individual Contractor Deficits Ratesetting Method (Irrigation Ratesetting Policy) as the new policy for development of water rates for the CVP. The AS/WS subsequently approved the final Irrigation Ratesetting Policy in 1988.

In the early 1990's, Reclamation initiated a corresponding process to develop and implement a CVP M&I Ratesetting Policy. That process was to be similar to the methodology of the CVP Irrigation Ratesetting Policy that was adopted. In addition, the M&I Ratesetting Policy was to be interest bearing for unpaid construction costs and O&M from the date M&I CVP water was taken. The calculation of M&I O&M deficit interest for years before 1986 led to litigation which was eventually settled at the Department level.¹ O&M interest is calculated on unpaid balances from 1986 forward using the same interest rates that are applicable to irrigation.

In addition to complying with the statutory mandate, Reclamation also had audits and reviews performed by the Department of the Interior (Interior) Office of Inspector General (OIG) and Government Accountability Office (GAO); and interest by the general public, other project stakeholders, Congressional Committees and individual members of Congress.

Due to on-going resolution of statutory requirements, OIG/GAO findings, contractor opposition, and Congressional and stakeholder interest, the CVP M&I Ratesetting Policy was approved on an interim basis, pending completion of the Programmatic Environmental Impact Statement (PEIS) on the CVP pursuant to Public Law 102-575. The broad scope of the PEIS encompassed both the project's Irrigation and M&I water ratesetting policies, making them subject to modification based on the results of the PEIS.

The PEIS was completed in October 1999 and a final Record of Decision (ROD) was issued on January 9, 2001. The ROD resulted in no modification to either of the CVP ratesetting policies. However, finalization of the Interim Policy did not move forward pending (1) completion of Endangered Species Act (ESA) section 7 consultation with the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (F&WL) on an updated CVP Operations Criteria Plan; and (2) the settlement of the lawsuit brought about by CVP M&I contractors.

¹ CVP M&I contractors litigated Reclamation's calculation of the O&M deficit required by the COA. That litigation was eventually settled by the parties (M&I Settlement Agreement, Case No. CIV-F-03-5359 OWW SMS, dated March 3, 2005). The Settlement Agreement established terms for payment of obligations to the United States with interest. Paragraph 3(A) (2) through 3(A) (5) of the Agreement outlines CVP contractors' responsibilities for CVP construction costs; as well as allocable O&M costs; including interest on the unpaid balances.

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CVP COST ALLOCATION PROCEDURE

Construction costs for plant-in-service are allocated through the cost allocation as prescribed by Reclamation Manual PEC 01-02, Project Cost Allocations. The cost allocation of the CVP plant-in-service investment is reviewed and updated annually to reflect: any additions to, or retirements from, the plant-in-service investment account; the adjustment to the historic data base to reflect another year's actual CVP water and power deliveries; and any changes in the water and power deliveries projected to be made during the remainder or the 50-year repayment period (based on the in-service date of the last major facility). A general description of the plant-in-service investment cost allocation process is detailed below.

Plant-in-service investment costs are first allocated among the authorized CVP purposes (e.g. flood control, navigation, water supply and power). Costs allocated to the water supply purposes are then suballocated among various functions, one of which is M&I, based on each function's proportionate share of the total of the past, present and future CVP water deliveries. Similarly, CVP hydroelectric power generation and transmission costs are suballocated between commercial sales and CVP project use functions based on each function's share of the total past, present and future CVP power uses. Costs allocated to the CVP project use power function are then further suballocated among various CVP water supply functions (including M&I) based on each function's share of the total of past, present and future CVP project use power uses.

Actual annual operating expenses are allocated at the close of each fiscal year. At year end, operation, maintenance and replacement costs incurred by the CVP during the previous 12 months are allocated among the authorized project purposes and then suballocated within the water supply and power functions. However, instead of allocating annual operating costs on the basis of past, present and future data as described above, the allocations is based on each function's share of the CVP water and power deliveries identified for the current year.

The plant-in-service and operation expense allocations are used to determine the water supply and project use power costs allocated to the irrigation and municipal and industrial functions and detail the costs to be recovered from these two functions through the water service rates.

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RATESETTING POLICY DESCRIPTION

Legal and Policy Considerations

This policy prescribes the methodology for distributing and recovering costs for the CVP and does not supersede other Reclamation Policy and Directive & Standards. The irrigation and M&I functions of the Project are integral water delivery operations for the CVP governed by common requirements, criteria, and principles. The integrated operations and common characteristics dictate consistency and uniformity in the ratesetting policies for these two functions wherever possible. Accordingly, Irrigation Ratesetting Policy provided the broad framework upon which the approved Interim and the Final M&I Policy are based.

- CVP water service contracts: Consistent with terms and conditions of CVP M&I water service contracts, this Policy and cost of service water rates apply to the authorized uses of water within these contracts.
- Individual Contractor accounting is maintained for repayment accountability, and O&M deficit(s) are accumulated for and will be repaid by each Contractor under the terms of each new or amended contract, as required by Section 106 of Public Law 99-546.
- The cost of service water rates apply to all types of water with the CVP, including storage and/or conveyance of non-project water in CVP facilities.
- The cost of service water rates are composed of a unique assembly of cost components frequently referred to as “cost pools.” Each contractor pays a water service rate encompassing a proportionate share of the cost pools associated with the specific service required to provide that contractor with CVP water. A description of the various cost pools involved is presented subsequently.
- All of the costs of those CVP facilities in-service are included in the M&I water rates.² The cost of facilities not being fully utilized (unused capacity) are only deferred if Congress has specifically authorized the deferral of these costs.
- The rate of interest to be applied to the O&M deficits will be determined annually by the Department of the Treasury in accordance with criteria provided in Public Law 99-546. The rate will be applied using compound interest procedures to any contractor’s deficit.
- Construction is an interest bearing function and the contractors’ share of unpaid amounts are repaid using present worth of future deliveries (see definition) to identify an appropriate construction water rate.

² Per Legislation and associated water contracts negotiated (refer to bullet on “Repayment Contracts” below), construction costs may be recovered outside of the Water Ratesetting Policies.

- Transferred Works: Most of the O&M for major CVP conveyance and conveyance pumping facilities have been transferred to non-Federal operating entities through agreement with Reclamation. The agreement and associated methodologies adopted by the non-Federal operating entities to recover their O&M cost will be in lieu of recovering cost through this Policy.
- Repayment Contracts: Contractors that entered or enter into repayment contracts are responsible for their allocable construction costs based on the terms of the contract. Additionally, contractors that prepaid their construction obligation and converted to repayment contracts are still responsible for any increases to construction costs prorated to them. Construction costs are prorated to contractors annually through the M&I Ratesetting Policy and any unpaid costs identified are interest bearing and interest is treated as an annual expense. However, the costs prorated to CVP water users are not considered final until a final CVP cost allocation study is completed and the results of the study are implemented for cost recoverable through 2030. Also, any new construction could have separate repayment periods (up to 50-years) if authorized and approved as such. Additional costs could still be recovered through water service rates if their contracts allow for recovery under the CVP Ratesetting Policies.
- Repayment Periods
 - In accordance with Public Law 99-546, the repayment period for the main Project water system facilities, referred to as in-basin facilities, ends in 2030. The repayment period commenced in 1981 the year after the last major facility, the New Melones Dam and Reservoir, was placed in service.
 - Out of basin facilities. A separate repayment period of 1987-2036 has been established for the costs of the San Felipe Division facilities, also referred to as the out-of-basin facilities. The repayment period for the out-of-basin facilities commenced the year after these facilities were substantially completed. Currently, these facilities are recovered under repayment contract provisions included in the San Felipe Unit water service contracts.
 - Construction authorized and completed after the date of this approved Policy. New authorized legislation would provide guidance regarding the repayment periods for those cost.
 - Extraordinary Operation and Maintenance (XOM). Title IX, Subtitle G, Section 9603(b) of P.L. 111-11, (Omnibus Public Land Management Act of 2009) dated March 30, 2009, establishes requirements relating to repayment of extraordinary operation and maintenance work performed by the United States. Activities approved as extraordinary maintenance may be repaid over a period of up to 50 years, with interest in accordance with Reclamation Manual PEC 05-03, Extended Repayment of Extraordinary Maintenance Costs.
 - Dam Safety Projects: The Reclamation Safety of Dams Act of 1978, as amended, established requirements for recovery of a portion of the costs associated with the modification of Reclamation dams due to dam safety concerns. The Act provides for repayment of the Safety of Dams modification

costs that are allocable to Project beneficiaries over a period not to exceed 50 years, Reclamation Manual PEC 05-05, Safety of Dams Repayment, provides additional information.

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COMPONENT WITH INDIVIDUAL CONTRACTOR DEFICITS RATESSETTING METHOD

Description of Ratesetting Method³

The Component with Individual Contractor Deficit Ratesetting Method provides for a block repayment procedure with 50 years to repay all of the costs included in that block of costs. This method abandons the historic procedure of extending the repayment period of the entire CVP each time a new facility is added to the CVP (also known as the “rolling repayment” method or rolling 50 procedure).

While it is expected that construction will continue for some time on the CVP, the initial construction period for repayment purposes is calculated from the date the most recently completed major CVP facility (the New Melones Dam and Reservoir) was included as a part of the CVP. Therefore, the plant-in-service costs at the end of fiscal year 1980 must be repaid within 50 years, or by the end of fiscal year 2030. This period conforms with the time frame specified by Public Law 99-546. As noted previously, new repayment periods will be established for the construction costs of major rehabilitations and new facilities or units added to the CVP.

The Component with Individual Contractor Deficits Ratesetting Method includes individual contractor repayment or deficit balances in the determination of contractor water rates. The terms “deficit” or “operation and maintenance” deficit refer to the accumulation of annual operation and maintenance costs in excess of the annual water service payments made under contract with a particular entity. By individual contractor, the revenues in excess of operation and maintenance expense are available for construction and deficit balances.

Under the Component with Individual Contractor Deficits Ratesetting Method, the individual contractor M&I water rates depend upon the extent and type of services provided by the Bureau of Reclamation (Reclamation). The water rate applicable to each contractor consists of a number of cost components (or cost pools) which correspond to the water services provided by Reclamation. **Each contractor’s water rate consists of a composite of pooled CVP-wide rates, pooled service area rates, and individual rates to recover costs specific to certain contractors.**

The cost pooling approach has been used in determining CVP M&I water rates since the 1940’s in accordance with the language of the legislation authorizing the CVP and perpetuated by subsequent legislation which provides for the continuation of the operational and financial integration of the CVP.

³ Reclamation has discretion to use a different methodology to distribute O&M among contractors to ensure recovery of reimbursable O&M costs from contractors as required by Reclamation Law.

There are seven potential cost components that are totaled to determine a contractor's M&I water rate under the Component with Individual Contractor Deficits Ratesetting Method. These cost components are: water marketing, storage, conveyance, conveyance pumping, direct pumping, other, and adjustments for historic individual contractor repayment or deficit balances. The storage, conveyance, conveyance pumping, and direct pumping components may include rates to recover both operation and maintenance expenses and construction costs.

A description of each of the seven potential costs components that are totaled to determine a contractor's M&I water rate is provided below:

- Water Marketing
 - The water marketing O&M cost component includes costs such as (but not limited to) monitoring, administering and negotiating water service contracts, maintaining water delivery and payment records, accounting for the annual financial results for Project water operations, developing annual water rates, and related types of activities. The annual water marketing expenses are pooled CVP-wide and allocated to all paid water for the fiscal year involved.

- Storage
 - The storage operation and maintenance expense component includes all of the expenses classified as storage. Storage operation and maintenance expenses are pooled CVP-wide and allocated to all contractors benefitting from CVP storage by calculating a per acre-foot rate using the total paid water stored in facilities operated and maintained by Reclamation during the fiscal year involved. W.R. Gianelli Pumping-Generating Plant serves as a pumping-only facility for the San Felipe Division, the costs of this facility are adjusted to include O&M cost of the facility and Project Use Energy as direct pumping costs, rather than as storage costs for the San Felipe Unit contractors.

 - Storage construction costs are pooled CVP-wide and allocated to all contractors benefitting from CVP storage by calculating a per acre-foot rate using the historic and projected long-term contract deliveries applicable to the 50-year repayment period commencing in 1980. W.R. Gianelli Pumping-Generating Plant serves as a pumping-only facility for the San Felipe Division, the costs of this facility is adjusted to include construction cost of the facility and Project Use Energy as direct pumping costs, rather than as storage costs for the San Felipe Unit contractors.

 - The storage component also includes the costs of the Folsom Pumping Plant, the Gianelli Pumping-Generator facility and the Columbia Mowry System. These pumping facilities are included in storage as they are utilized to provide

services which were eliminated by construction of the applicable storage facilities or because their operations more closely reflect a storage operation than a pumping operation.

- Conveyance

- Reclamation will include recovery for any conveyance facilities that have not been to non-federal entities. BOR continues to perform OM&R for Folsom-South Canal and the annual conveyance O&M cost are recovered through the ratesetting process. The Folsom-South Canal contractors conveyance O&M rate is calculated by dividing the projected Folsom-South Canal O&M costs by the projected water to be transported through the Folsom-South Canal.
- Conveyance construction costs are pooled CVP-wide and allocated to all contractors benefitting from CVP conveyance service by calculating a per acre-foot rate using the historic and projected long-term contract deliveries applicable to the 50-year repayment period commencing in 1980.

- Conveyance Pumping

- Conveyance pumping component includes all of the costs of the Jones and Dos Amigos Pumping Plants, and O'Neill Pumping-Generator facility.
- The conveyance pumping operation and maintenance expenses are allocated to those contractors receiving conveyance pumping services by using a CVP-wide pooled rate per kWh. The allocated cost for each pumping plant is calculated on a cost per acre-foot based on the lift requirements of the specific pumping plant. Currently, routine conveyance pumping O&M is performed and/or recovered through the agreements established with non-federal operating entities.
- Conveyance pumping construction costs for each of the four conveyance pumping facilities are allocated to all Contractors benefitting from CVP conveyance pumping by calculating a per acre-foot rate for each facility using the historic and projected long-term contract deliveries through each facility during the 50-year repayment period commencing in 1980. The rates for each of the pumping plants used by an individual contractor are totaled to determine each Contractor's applicable conveyance pumping capital rate.
- A portion of the Jones Pumping Plant's construction costs are assigned to the Friant-Kern and Madera Canal Contractors on the basis of the historic and projected deliveries to the Delta Mendota exchange contractors applicable to the 50-year repayment period. These costs are then allocated among the

Friant-Kern and Madera Canal contractors on the basis of their historic and projected water deliveries during the 50-year repayment period.

- Similar to capital, a portion of the Jones Pumping Plant’s operation and maintenance expenses are assigned to the Friant-Kern and Madera Canal Contractors on the basis of the water deliveries to the Delta Mendota exchange contractors applicable to the water rate year. O&M costs are recovered through the agreements with the non-Federal Operating entities.
- Direct Pumping
 - The direct pumping component includes all of the costs applicable to the various canalside relift pumping plants and the other CVP pumping plants not operated by the Reclamation. These facilities and the operating entities are as follows:

Pumping Plant	Operator
Wintu Pumping Plant	Bella Vista Water District
Contra Costa Canal Pumping Plant	Contra Costa Water District
Ygnacio Pumping Plant	Contra Costa Water District
Clayton Pumping Plant	Contra Costa Water District
San Luis Relift Pumping Plant	San Luis Water District
Westlands Relift Pumping Plant	Westlands Water District
Pleasant Valley Pumping Plant	Westlands Water District
Pacheco Pumping Plant	Santa Clara Valley Water District
Coyote Pumping Plant	Santa Clara Valley Water District

- All of the facilities included in the direct pumping component are operated and maintained at no cost to Reclamation with the exception of the cost of the project use energy provided. The project use energy costs are isolated and charged directly to the individual contractors receiving benefit of the pumping services.
- The CVP construction costs applicable to the direct pumping facilities is also charged directly to the individual contractor receiving benefit of the pumping service. Per acre-foot rates are determined for these costs by distributing the construction costs to the historic and projected long-term contract deliveries applicable to the 50-year repayment period.
- Other
 - Certain construction costs are determined to be reimbursable and benefit users CVP-wide (such as Programmatic Environmental Impact Statement Cost). Consequently, a separate cost component, referred to as “Other” in the applicable water rate books, was developed to recover these costs. Per acre-foot rates are determined for these costs by distributing the construction

costs to the historic and projected long-term contract deliveries applicable to the 50-year repayment period.

- Deficits or Surpluses
 - Deficits or surpluses, as well as the updating of accumulated deficit or surplus balances, are determined for each fiscal year. M&I O&M costs are compiled and grouped into cost components for Water Marketing, Storage, Conveyance, Conveyance Pumping, and Direct Pumping. The cost components were described in detail previously. Costs in each component are allocated to those contractors utilizing that component, based on each contractor's respective share of the total paid water deliveries for that component.
 - Revenues of each contractor are applied towards their share of costs, including applicable interest. The result is either a net surplus or deficit for that fiscal year. Contractor revenues are applied in the following order:
 - 1st – Current Year O&M Expenses
 - 2nd – Current Year Interest Expense
 - 3rd – Construction Costs
 - 4th – Interest-Bearing O&M Deficit
- Extraordinary Maintenance. OM&R costs that are approved as Extraordinary Maintenance, will have up to 50 years for repayment with interest to all project purposes. Eligible costs will be reviewed in accordance with Reclamation Manual PEC 05-03, Extended Repayment of Extraordinary Maintenance Costs, and approval requested as required.

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Cost of Service Water Rate Development

- O&M. Annual M&I O&M water rates include the reimbursable portion of budgeted O&M cost. The O&M cost components include the annual labor, supervision, materials, and other types of O&M costs associated with each of the five O&M cost components – Water Marketing, Storage, Conveyance, Conveyance Pumping, and Direct Pumping. Where O&M agreements exist, the servicing authority recovers costs from contractors and expenses for these facilities are not included in Reclamation costs. For the O&M cost components, the annually determined rates are computed by dividing the pooled annual costs by the corresponding projected annual water deliveries for each component, respectively. O&M cost components are assigned to contractors on the basis of the services used to deliver their water supply. All M&I water deliveries require water marketing and storage services.
- Deficits. Unpaid O&M and interest costs are identified by contractor and rates are developed for recovery through 2035. Any deficits for routine O&M that exist after 2035 will be required to be paid once the contractor is notified through direct billing of the unpaid amount.
- In-basin Construction Cost. Construction components are determined by accumulating all M&I plant-in-service costs by component, as of the most recently completed fiscal year, and then dividing each component's costs by the total historical and projected acre-feet for contractors having the service for the 50-Year repayment period. The resultant component construction rates are then combined as applicable by individual contractor. Each contractor's share is then determined based on their 50-Year deliveries to the rate determined. Once determined, a rate is developed for the contractor taking into account historical repayment and amortization of cost using a composite interest rate.
- Annual CVP M&I Cost of Service water rates. The above three components comprise the cost of service water rate.

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INTEREST ON M&I UNPAID COST

Interest – Construction Costs

M&I construction is an interest-bearing function, and interest is computed annually on the individual contractor's unpaid construction cost. Annual interest on general (non-specific) plant-in-service is calculated using a composite interest rate for the Project. A composite interest rate is developed each year which weighs Treasury interest rates for each of the facilities in Plant-in-Service. Each of the interest rates are based on the year that each of the facilities began construction.

The composite interest rate is updated annually to reflect any additions to the Project plant-in-service accounts and their authorized interest rates.

Deficits and Interest on Deficit

The deficit balance for an individual contractor refers to the accumulation of annual O&M costs that have not been paid, including applicable interest expenses. Deficits are incurred when a contractor's annual revenue is not sufficient to repay their allocable share of O&M costs. Deficit balances are updated annually to reflect repayment, additional deficit incurred and the annual interest expense.

Deferred Interest Method

M&I plant-in-service costs, annual plant-in-service interest, O&M deficits, and deficit interest were recomputed under the Deferred Interest Method for the period 1949 to 1987.

The Deferred Interest Method ensures recovery of the deferred amount by amortizing these charges as an additional construction cost component to be repaid over the remaining Project repayment period. In this method the deferred interest is capitalized at the applicable composite interest rate, and including a deferred interest component in M&I rates to recover such amount. Refer to the attachment which describes the method in more detail.

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TABLE OF M&I CONSTRUCTION COST RECOVERY

M&I Cost Recovery as of September 30, 2018

Construction ⁴			O&M Deficit
Total CVP Construction Costs Allocated to M&I	Cumulative Repayment of M&I Construction Costs	Percentage of M&I Construction Costs Repaid	Cumulative M&I Deficit Balance
\$122.6 Million	\$119.6 Million	97.5%	\$12.4 Million

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- ⁴ These amounts are based on the current interim CVP cost allocation and will be trued-up when the final cost allocation is implemented.

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GLOSSARY

Annual O&M: The ongoing, regular, or routine operation, maintenance, repairs, replacements, and other activities and actions necessary for continued structural integrity and operational reliability of project facilities for the delivery of contract water.

Construction Cost: In this document, plant-in-service and construction cost are used interchangeably to refer to construction costs that have been placed into service for recovery purposes.

Cost of Service: The determination of annual water rates based on the Government's cost of providing M&I water to the individual contractor's designated delivery point.

Deficit: The accumulation of annual O&M and interest costs in excess of the total revenues received from the sale of water under existing water service and/or repayment contracts.

Extraordinary Operation and Maintenance (XOM): Major, nonrecurring maintenance to Reclamation-owned or operated facilities, or facility components, that is—intended to ensure the continued safe, dependable, and reliable delivery of authorized project benefits; and greater than 10 percent of the contractor's or the transferred works operating entity's annual operation and maintenance budget for the facility, or greater than \$100,000.

Fiscal Year: The federal government's fiscal year that runs from October 1st through September 30th.

Historical and Projected Water Deliveries: The historical and projected project water for project water contractors, with the exception of non-storable Reclamation Reform Act, Section 215 water, expected to be delivered by Project facilities within the Project's repayment period.

In-Basin Facilities: The main Project water storage and delivery system facilities located in the Central Valley Basin of California.

Paid Water: This term refers to all Project water supplies required to be paid under water service and/or repayment (9d) contracts.

Present Worth: A financial term referring to the time value of money. The present worth concept recognizes that the interest earning capability of money makes \$1 in the future worth less than \$1 today. As an example, if \$1 was deposited today at a 10 percent interest rate, it would be worth \$1.10 in 1 year. Thus, \$1 in 1 year would be worth something less than \$1 today.

Present Worth of Future Deliveries: The same concept as indicated in the preceding Present Worth definition, only as applied to a stream of water deliveries rather than monetary payments. Similar to the concept that money earns interest, M&I costs must

be repaid with interest; and hence, as \$1 is worth more today than in the future, an acre-foot of water today is worth more than an acre-foot sold at the same price in the future. Because of this, the time value of future deliveries must be considered in determining construction and deficit water rates required to repay these costs within the repayment period. The present value of future deliveries is computed by discounting such deliveries by the applicable interest rate over the remaining repayment period.

Projected Water Deliveries: All Project water expected to be delivered for revenue producing purposes during the remainder of the repayment period.⁵

Repayment Period: The time allowed for the recovery of the construction invested in a project. For main project feature, the repayment period began in fiscal year 1981 and continues through fiscal year 2030. Separate repayment periods may be established for major rehabilitation or new facilities.

Water Rate(s): As discussed throughout this document, general use of these terms refers to the cost of M&I water expressed on a cost per acre-foot basis. When other meanings are intended in the use of the words “rate” or “rates”, such as in referring to an interest rate, such clarifying words are provided in the text as appropriate.

Water Service Contract(or): a contractor who is receiving Project water under a water service or repayment contract with Reclamation.

⁵ Where actual or estimated deliveries are zero, contract entitlement may be used to determine the allocation of O&M cost. The process to determine projected water deliveries for a water ratesetting year will be included in the foreword of the water rate books.

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Attachment

Deferred Interest Method: A potential inequity in the allocation of interest was identified during the early development of the Proposed Policy. This inequity stems from a disproportionate allocation of interest costs to the early contractors. An example of how this disproportionate interest allocation occurs follows.

Costs are allocated annually based on water delivered, with each contractor being allocated a proportion of costs on this basis. Contractors are responsible for their proportional share of costs as noted; however, annually the construction costs would be reallocated each year based upon the then-current contractors receiving water services and each contractors obligation updated. However, there is no retroactive adjustment of allocated interest expense. These interest costs together with assigned O&M costs result in increased deficits, as well as increased interest charges on those deficits.

The need for a method to equitably allocate historic interest costs during completion of the many features of the Project led to the development of the Deferred Interest Method. The Deferred Interest Method established the period 1949-1987 as the period during which inequitable plant allocations and interest computations occurred. As such, M&I plant costs, annual plant interest, O&M deficits, and deficit interest applicable to that period were recomputed under the Deferred Interest Method.

Interest for the early project years, 1949 through 1987, under the Deferred Interest Method is \$21.3 million less than the amount of interest originally computed and allocated to contractors. The Deferred Interest Method ensures recovery of the \$21.3 million by amortizing these charges as an additional capital cost component to be repaid over the remaining Project repayment period. By doing this, it permits the reallocation of construction costs and the resultant computation of a substantially lower amount of interest as of 1987, while still providing for full recovery of the interest amount.

Both the Deferred Interest Method and the original interest computation method yield essentially the same financial result to the U.S. Government. The difference between the two methods lies in the procedures for computing interest costs by contractor and in the timing and method for recovering such interest costs. The deferred Interest Method erases the inequity in computing contractor annual interest for years prior to 1988, resulting in \$21.3 million less interest computed through this period, and provides for recovery of the \$21.3 million, with interest, through the capitalized Deferred Interest Method.