



# Groundwater Banking Guidelines for Central Valley Project Water

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## Introduction

The Bureau of Reclamation (Reclamation) developed these Water Banking Guidelines (Guidelines) to implement water Banking as authorized by the Central Valley Project Improvement Act (CVPIA), and as authorized by certain Federal contracts.

Reclamation recognizes groundwater Banking as an important water management tool in optimizing the use of Central Valley Project (CVP) Water, while addressing groundwater overdraft in some areas.

Historically, Reclamation has approved Banking of CVP Water in acknowledged Groundwater Banks listed in Appendix "A". The process used to approve past Banking actions served as the basis of development for these Guidelines.

## Authority

Banking of CVP Water is authorized by Sections 3408 (c), (d), and (e) of the CVPIA, Title XXXIV, Public Law 102-575, October 1992. Additionally, certain CVP contracts allow for the Banking of CVP Water, and the development of these Guidelines is required by the delegation of authority to negotiate and administer contracts for CVP Water supplies.

## Applicability

These Guidelines apply to Contractors that have a contract with Reclamation for water service or repayment, water rights settlement, exchange, or other applicable contract(s) (herein referred to as contract) requesting to Bank CVP Water outside of its Contract Service Area. Contractors are subject to these Guidelines and any updates thereof when Banking CVP Water as approved by Reclamation.

These Guidelines do not apply to within-district Conjunctive Use, to a Contractor Banking its CVP Water within its Contract Service Area, to annual transfers and exchanges between CVP Contractors, previously authorized transfers and exchanges under executed long-term contracts, or the Banking of non-CVP Water, or water acquired/delivered pursuant to a Contractor's own water right.

## Purpose

Groundwater Banking creates operational flexibility and water supply reliability to Contractors.

These Guidelines set forth the standards under which Reclamation may approve the Banking and Recovery of CVP Water outside of the Contractor's Contract Service Area while protecting the integrity of the CVP. Contractors requesting approval to Bank or Recover CVP Water need to submit a water Banking proposal (Proposal) to Reclamation and should use these Guidelines when writing the Proposal.

## General

A Contractor is encouraged to consult with Reclamation before and during the formulation of a water Banking proposal. Reclamation analyzes all Proposals to ensure consistency with state and federal laws and that no Banking action will result in adverse third-party impacts to the CVP, other Contractors, other legal users of water, or the environment, as determined through the environmental compliance process.

Proposals will also be analyzed to ensure it delineates how all CVP Water will be returned or otherwise put to beneficial use prior to expiration of the Contractor's contract with Reclamation or the water Banking approval.

Appendix "B" is a guide to help Contractors develop a complete Proposal. After Reclamation receives a complete Proposal and it is reviewed by a contract specialist, the Proposal/action must undergo National Environmental Policy Act (NEPA) compliance before approval. Once approved, Reclamation will notify the Contractor in writing.

Reclamation has acknowledged certain Groundwater Banks for Banking and storing CVP Water (listed in Appendix "A"). Reclamation may update the list of acknowledged Groundwater Banks without modifying these Guidelines. A Bank Operator seeking to add a Groundwater Bank to the existing acknowledged list should contact their local Reclamation area office or visit <http://www.usbr.gov/mp/waterbanking/> for more information.

To ensure continued compliance with applicable federal and state laws and authorities, Reclamation will update or revise these Guidelines as necessary. Future Banking approvals will be made pursuant to these Guidelines or any updates or revisions thereof. Approvals issued prior to these Guidelines are subject to Reclamation review for compliance with these Guidelines or any updates or revisions thereof.

## Definitions

For the purposes of these Guidelines, the following definitions apply:

- **Banking Action:** The deposit of CVP Water into a Groundwater Bank and its subsequent withdrawal, return, and/or transfer from the Groundwater Bank.
- **Bank Operator:** An entity that manages and/or operates a Groundwater Bank.

- **Contract Allocation:** CVP Water made available pursuant to a Contractor's CVP contract, typically expressed as a percentage of contract total.
- **Contractor:** A party having a contract with the United States for the use of CVP Water pursuant to Federal Reclamation law.
- **Central Valley Project Water (CVP Water):** All water that is developed, diverted, stored, or delivered by the Secretary of the Interior in accordance with the statutes authorizing the CVP and in accordance with the terms and conditions of water rights acquired by Reclamation pursuant to California law.
- **Conjunctive Use:** The coordinated and planned management of both surface and groundwater resources to maximize the efficient use of the resources; that is, the planned and managed operation of a groundwater basin and a surface water storage system combined through a coordinated conveyance infrastructure.
- **Contractor's Contract Service Area:** The area to which the Contractor is permitted to provide CVP Water under its contract(s) as described in the contract(s), which may be modified from time to time in accordance with the contract without amendment to the contract.
- **Groundwater Bank(s):** An established groundwater storage aquifer managed by a Bank Operator or a Recharge area within a groundwater subbasin (as identified in the current California Department of Water Resource's Bulletin 118) acknowledged by Reclamation as appropriate for the Recharge and Recovery of CVP Water.
- **Groundwater Banking (Bank/Banked/Banking):** A process whereby a Contractor's CVP Water is deposited and stored in a Groundwater Bank outside of the Contractor's Service Area and made available for beneficial use in a subsequent month(s) or period(s) consistent with Reclamation's CVP Water rights, permits, and/or licenses and provisions of the applicable CVP contract.
- **In-lieu Banking (In-lieu):** Utilizing surface water rather than pumping groundwater and allowing groundwater to remain in the aquifer.
- **Letter of Agreement (LOA):** Written instrument entered into by Reclamation and the Contractor whereby Reclamation's costs are paid for the reviewing and processing of a Proposal.
- **Project Power:** Electrical energy, and its associated ancillary service components, required to provide the full electrical service needed to operate and maintain CVP facilities and to provide electric service for CVP purposes.
- **Recharge:** The process of adding water to an aquifer to augment or replace groundwater supplies. Ground water Recharge occurs either naturally or artificially. For purposes of these Guidelines, Recharge occurs as part of a Banking Action.
- **Recovery (Recover/Recovering/Recovered):** Return of Banked water from an acknowledged Groundwater Bank to a CVP Contractor through facilitated exchanges, physical extractions, or In-lieu transactions.

## Guidelines for Banking CVP Water

To Bank CVP Water, a Contractor must have a contract that allows a Contract to request Banking, the Banking must occur within a Reclamation acknowledged Groundwater Bank, and the Banking Action will not result in adverse third-party impacts. Banking of CVP Water is subject to the following:

1. **Compliance:** A Contractor requesting to Bank CVP Water must be in compliance with the:
  - a. Contractor's previous Banking Action(s) approved by Reclamation, as appropriate.
  - b. Applicable contract under which CVP Water is/was made available for Banking by the Contractor.
2. **Conveyance:** Conveying water for Banking transactions must meet the following:
  - a. Conveyance of CVP Water to or from a Groundwater Bank shall follow the general rule of no harm (as determined in the environmental compliance process) to the:
    - i. Operations of the CVP
    - ii. Other CVP Contractors
    - iii. Financial status of the CVP
    - iv. Environment
  - b. The Contractor proposing the Banking Action is responsible for:
    - i. Coordinating with and acquiring written approvals or agreements for conveyance (if applicable) from the appropriate entity(ies) that may include but are not limited to, the Department of Water Resources, the local Reclamation Area Office, or other water purveyors.
    - ii. If a water Banking Action requires an exchange for non-CVP Water, an additional conveyance agreement/contract may be necessary.
  - c. The introduction of any water into a CVP facility for Banking returns must comply with Reclamation's then-current water quality standards/requirements for that CVP facility.
3. **Recharge and Recovery:** Banking Actions include Recharge and Recovery of CVP Water, and this may be done by direct Recharge and Recovery, exchange, transfer<sup>1</sup>, or in-lieu.
  - a. When Banking in a groundwater subbasin as identified in the then-current California Department of Water Resource's Bulletin 118, the Banking Action will occur within the same subbasin(s) that the Contractor's Contract Service Area overlies or in a neighboring sub-basin. If Banking in a neighboring sub-basin, the contractor must provide documentation of the subsurface groundwater movement between subbasins.
  - b. Unless otherwise approved, Recovered water needs to be put to beneficial use within the Contractor's Contract Service Area.
  - c. The Contractor must document coordination with the Groundwater Sustainability Agencies overlying the subbasin and document how the subbasin will benefit from the Banking and Recovery Actions in the water banking proposal.
4. **Duration:** CVP Water deposits into a Groundwater Bank must be made during the term of the existing Federal contract under which the CVP Water is being Banked and within the

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<sup>1</sup> An exchange or transfer in this scenario does not refer to an exchange approved outside of these Guidelines.

terms and conditions of the applicable Reclamation CVP Water rights permits and/or licenses. If the return of the Banked water extends beyond the duration of the Federal contract under which the CVP Water was Banked, the Banking Action will be considered on a case by case basis.

5. **Acreage Limitation Exemption:** This section of the Guidelines is only applicable to Contractors that are actively subject to the acreage limitation provisions of Federal Reclamation Law.

On or after the effective date of these Guidelines, CVP Water Banked under a temporary Section 215 water service contract is only exempt from the acreage limitation provisions of Federal Reclamation Law for the duration of the applicable Section 215 contract.

Notwithstanding accepted Banking operational losses (as referenced in 13.a and 13.b), any water acquired under a Section 215 contract that is not put to beneficial use within the duration of the Section 215 contract becomes subject to acreage limitation provisions of Federal Reclamation Law.

6. **Administrative Costs:** The LOA under which Banking occurs will remain in effect during the term of the approval. The Contractor is responsible for any Reclamation costs or expenditures relating to the Banking approval, including any other costs deemed applicable by Reclamation and defined in the LOA.
7. **Purpose of Use:** Beneficial use of Banked CVP Water must be consistent with the terms and conditions of the applicable Reclamation CVP Water rights permits and/or licenses and provisions of the contract under which the CVP Water is/was Banked.

Previously Banked CVP Water may be used for beneficial purpose(s) other than that for which it was initially Banked but is subject to Reclamation approval and any additional requirements that may be imposed by Reclamation.

8. **Place of Use:** When previously Banked CVP Water is Recovered through an exchange of non-CVP Water, the non-CVP Water received by the Contractor must be beneficially used within the Contractor's Contract Water Service Area and within the permitted water rights place of use. Likewise, the exchanged CVP Water must be used within the permitted CVP place of use, unless relevant State Water Resources Control Board orders or decisions and Reclamation approval are issued.
9. **Environmental Compliance:** Reclamation approval for Banking CVP Water is dependent upon Reclamation and the Contractor complying with applicable environmental requirements including but not limited to:
  - a. NEPA
  - b. The Endangered Species Act (ESA)
  - c. Other applicable state and federal laws
10. **Power:** Project Power can only be used for conveyance of CVP Water through federal facilities for federal Contractors participating in Banking actions.
11. **Records:** When Banking in an established groundwater storage aquifer operated by a Bank Operator, the Contractor and the Bank Operator by written agreement, will maintain accounting records of the Contractor's CVP Water balance depicting CVP Water deposited and Recovered.

The Contractor will provide monthly detailed accounting during periods of Banking and Recovery. These may be submitted as part of the water delivery records due on the 20th of every month. If no activity is occurring, accounting records are required annually.

The Contractor is responsible for providing an annual report summarizing the cumulative Banking actions from the initial Banking approval through the end of the then current reporting year, and each year thereafter, as defined in the Banking approval. The Banking Operator must concur, in writing, with the Contractor's Banking and Recovery balances.

When Banking in a groundwater subbasin as identified in the current California Department of Water Resource's Bulletin 118, the Contractor shall follow the same reporting procedures outlined above, minus the written agreement and concurrence of records with the Bank Operator.

12. **Scheduling:** The Contractor Banking CVP Water will provide monthly water schedules with proposed quantities of CVP Water for Banking or Recovery.
13. **Banking Losses:** Water losses vary by Groundwater Bank. To protect the CVP from unreasonable loss, Reclamation, in consultation with Contractors and/or Bank Operators, will review specified losses to determine if the loss is acceptable to Reclamation for Banking CVP Water. Determinations will be based on local conditions (i.e., local hydrology, evaporation rates, conveyance facilities, aquifer characteristics, etc.), and the current Record of Decision or Finding of No Significant Impact associated with the Groundwater Bank's operation and/or construction.
  - a. Acceptable operational losses will be treated as an even exchange.
  - b. Reclamation is not responsible for any water losses associated with the Banking transaction once the water passes the specified point of diversion(s) for the Banking action.
  - c. Notwithstanding accepted Banking operational losses (as referenced in 13.a and 13.b), a Contractor using CVP Water as "leave behind" for an unbalanced Banking arrangement, must transfer the unbalanced quantity to the Groundwater Bank Operator; e.g. 100 acre-feet (AF) of CVP Water are Banked and 75 AF are returned to the Contractor and 25 AF are left behind. The Contractor must transfer the 25 AF of leave behind water to the Bank Operator, consistent with current Interim Guidelines for Implementation of the Water Transfer Provisions of the Central Valley Project Improvement Act, Title XXXIV of Public Law 102-575 (Water Transfer Guidelines).
14. **Transfer of Previously Banked CVP Water:** Reclamation may approve a transfer of previously banked CVP Water to either a CVP or non-CVP contractor, providing the transfer complies with applicable federal and state laws, the water transfer provisions of the CVPIA, Reclamation's Water Transfer Guidelines, applicable Reclamation policy, contract provisions, and is otherwise consistent with Reclamation's CVP Water rights, permits, and/or licenses, and other regulatory requirements.

Transfer of previously Banked CVP Water, not originally included in the Proposal, may require additional environmental compliance and subsequent approval by Reclamation.

The water transfer's consumptive use requirement is deemed met after the water remains in the Bank for 365 days so long as the water is being transferred within the CVP Place of Use and meets all conditions of the transfer provisions listed above.

15. **Rates Associated with Banking CVP Water:** CVP Water delivered to a Groundwater Bank will be treated as CVP Water delivered to the Contractor; and therefore, all applicable CVP rates, charges, and assessments, including any operation and maintenance payments to operating non-federal entities apply Reclamation water accounting practices apply, and the charges will occur at the time of delivery to the Groundwater Bank. Additional conveyance charges may apply based on the return of Banked water and will be determined on a case-by-case basis.
16. **Quantities of CVP Water Available for Banking:**
  - a. Article 3f water of the applicable CVP contract, 215 water, uncontrolled releases, flood flows, water made available through the San Joaquin River Restoration Program (recovered water account, unreleased restoration flows, and recaptured/recirculated water), or Class 2 supplies are not subject to quantity limitations for Banking.
  - b. Reclamation may place quantity limitations on other CVP contract supplies (those not identified in 16.a) based on the proposed timing of the Banking Action, historic CVP Water use of the Contractor seeking to Bank CVP Water, or any other factor(s) that may cause harm to the CVP, CVP operations, or Reclamation's ability to meet regulatory and other contractual obligations.

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# Appendix A

## Acknowledged Water Banks

The entities listed below are the Groundwater Banks that Reclamation acknowledges for Contractors Banking and Recovering CVP Water. Reclamation may update this list as needed without modifying the Guidelines. A potential Bank Operator or Contractor seeking to add a Bank to the existing list should contact the local Reclamation area office or visit <http://www.usbr.gov/mp/waterbanking/index.html>.

The acknowledgement of an additional Bank, other than those listed below, requires analysis through the NEPA process. The analyses will include, but is not limited to, the groundwater storage capacity, recharge rates, ability to recover, recovery rates, water quality, groundwater flow and movement, water losses, degree of aquifer confinement, and impacts associated with the operation of the Bank.

	<b>Acknowledged Water Banks</b>	<b>Identifier Number</b>
1	North Kern Water Storage District	05-WC-20-3256
2	Rosedale-Rio Bravo Water Storage District	05-WC-20-3257
3	Semitropic Water Storage District	05-WC-20-3258
4	Tulare Lake Basin Water Storage District	05-WC-20-3259
5	Cawelo Water District	05-WC-20-3260
6	Lakeside Irrigation District	05-WC-20-3261
7	Kaweah Delta Water Conservation District	05-WC-20-3266
8	Kern Water Bank Authority	18-WC-20-5263
9	Meyers Farms Family Trust	N/A
10	Pixley Water Bank Project	18-WC-20-5264
11	West Kern Water District Groundwater Bank	18-WC-20-5255

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# Appendix B

## Guide for Water Banking Proposal

A Contractor shall provide the following information to initiate Reclamation's review of the Proposal. The Contractor shall ensure that all information referenced in these Guidelines is addressed in the Proposal.

1. Name and location of Contractor.
2. Contract number that allows for Banking CVP Water.
3. Name and location of the Groundwater Bank.
4. Complete a written description of the Proposal, including the proposed time period and/or duration, in term of years, for the Banking actions. Identify Banking and Recovery periods.
5. State the quantity of CVP Water to be made available for Banking. Identify the initial and subsequent purposes of use for the Banked water; e.g., irrigation water being Banked for future irrigation or municipal and industrial (M&I) use or fish and wildlife use; M&I water being Banked for future M&I or irrigation uses.
6. Identify the source CVP Water that is being made available for Banking (i.e., Class 1 or 2, water made available pursuant to Section 215 of RRA, transfer water, recirculation water, etc.).
7. Identify the method or methods by which the water will be Banked, i.e., exchanges, in- lieu, and/or direct Recharge.
8. Identify the conveyance methods for delivering the water to the Groundwater Bank and for the return of the Banked water to the Contractor, including the power required. Include any applicable wheeling agreements if necessary.
9. Identify all conveyance losses and Banking losses associated with the Banking action.
10. State what environmental requirements (NEPA, ESA, CEQA, and Fish and Wildlife Coordination Act, if applicable) have been completed. Explain and provide documentation.
11. If non-CVP Water will be introduced into Reclamation facilities for Banking returns, provide the water quality information for all water supplies that will be introduced.
12. Provide information on how & where Banked water will be used after it is Recovered.
13. Identify any required State Water Resources Control Board action(s) or other required actions by any other federal, state, city, county, or private entity.
14. Include the agreement between the Contractor and the Bank Operator/Groundwater Bank.
15. Provide documentation that the Banking Action is consistent with the applicable Ground water Sustainability Plan.

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# Acronyms and Abridgments

AF	Acre-Feet
Bank	Groundwater Bank
CEQA	California Environmental Quality Act
Guidelines	Water Banking Guidelines
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
ESA	Endangered Species Act
LOA	Letter of Agreement
M&I	Municipal and Industrial
NEPA	National Environmental Policy Act
Proposal	Water Banking Proposal
Reclamation	Bureau of Reclamation
RRA	Reclamation Reform Act of 1982
Water Transfer Guidelines	Interim Guidelines for Implementation of Water Transfer Provisions of the Central Valley Project Improvement Act, Title XXXIV of Public Law 102-575.