

# RECLAMATION

*Managing Water in the West*

## **Record of Decision**

## **Long-Term Water Transfers**

*Prepared by*  
**United States Department of the Interior**  
**Bureau of Reclamation**  
**Interior Region 10 - California-Great Basin**



— BUREAU OF —  
RECLAMATION

**April 2020**

## **Mission Statements**

The Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated 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.

# Record of Decision

## Long-Term Water Transfers

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## Summary of Action

The Bureau of Reclamation (Reclamation) and the San Luis & Delta-Mendota Water Authority (SLDMWA) prepared the Final Long-Term Water Transfers Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to evaluate the potential impacts of approving a range of potential water transfers from water contractors north of the Sacramento-San Joaquin Delta (Delta) to Central Valley Project (CVP) water contractors south of the Delta. The alternatives evaluated include potential transfers of CVP and non CVP water from north of the Delta to CVP contractors south of the Delta and in the San Francisco Bay Area (certain members of the SLDMWA, East Bay Municipal Utility District, or Contra Costa Water District) requiring the use of CVP and State Water Project (SWP) facilities. Water could be made available for transfer through groundwater substitution, cropland idling, crop shifting, reservoir release, and conservation. Following litigation, Reclamation and SLDMWA prepared a Draft Revised EIR/Supplemental EIS in 2019 to supplement the Draft EIS/EIR with additional information directly related to deficiencies noted by the court, and therefore the revised Final EIS/EIR will cover transfers over the period 2020 through 2024. Reclamation's Federal Action is to (1) review any proposed transfers and approve them (if appropriate); and (2) facilitate the conveyance of proposed and approved transfers through the Delta.

## Decision

Reclamation's decision to implement Alternative 2, Full Range of Transfers (Proposed Action), involves reviewing, approving, and facilitating proposed transfers over a five-year period. Transfer water may be made available from groundwater substitution, reservoir release, cropland idling, crop shifting, and conservation. This decision does not directly approve any specific transfer, but approves a set of criteria that must be met to transfer water. Buyers and sellers must implement measures incorporated into the Proposed Action to avoid or reduce potential environmental impacts to obtain Reclamation approval of the transfer. Reclamation technical experts review all proposed transfers prior to approval of the transfer to ensure that impacts of the proposed transfer are within the scope of analysis in the Final EIS/EIR and include all environmental commitments and mitigation measures.

## Alternatives Considered

### No Action Alternative

Under the No Action/No Project Alternative, CVP related water transfers through the Delta would not occur during the period 2015-2024. However, other transfers that do not involve CVP water or facilities could occur under the No Action/No Project Alternative. Additionally, CVP transfers within basins could continue with Reclamation's approval. Under the No Action/No Project Alternative, some agricultural and urban water users may face potential shortages in the absence of water transfers. To the extent transfer water is not available, there would be demand that would be unmet by surface water. Demand may be met by increasing groundwater pumping, idling cropland, reducing landscape irrigation, land retirement, or rationing water.

## Action Alternatives

The measures that moved forward for more detailed analysis in the EIS/EIR were those that responded to the NEPA purpose and need and CEQA objectives, minimize negative effects, were potentially feasible, and represented a range of reasonable alternatives. The measures remaining after the initial screening were combined into three action alternatives that were selected to move forward for detailed analysis in the EIS/EIR (in addition to the No Action/No Project Alternative). Table 1 presents the alternatives carried forward for analysis in the EIS/EIR. Analysis of these alternatives provided the information needed to make a decision, and provided the potential to mix and match elements of the alternatives, if needed, to create an alternative that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant environmental effects.

**Table 1 - Alternatives Analyzed in the EIS/EIR**

Alternative Number	Alternative Name	Description
Alternative 1	No Action/No Project	The No Action/No Project Alternative represents the state of the environment without the Proposed Action or any of the alternatives.
Alternative 2	Full Range of Transfers (Proposed Action)	Water made available for transfer through: <ul style="list-style-type: none"> <li>• Groundwater substitution</li> <li>• Reservoir release</li> <li>• Cropland idling and shifting</li> <li>• Conservation</li> </ul>
Alternative 3	No Cropland Modifications	Water made available for transfer through: <ul style="list-style-type: none"> <li>• Agricultural conservation (Seller Service Area)</li> <li>• Groundwater substitution</li> <li>• Reservoir release</li> </ul>
Alternative 4	No Groundwater Substitution	Water made available for transfer through: <ul style="list-style-type: none"> <li>• Agricultural conservation (Seller Service Area)</li> <li>• Cropland idling transfers - rice, field crops, grains, alfalfa</li> <li>• Crop shifting</li> <li>• Reservoir release</li> </ul>

A water transfer temporarily moves water from a willing seller to a buyer. To make water available, the seller must implement a measure(s) to reduce consumptive use or use water in storage. Potential measures to make water available for transfer include:

- **Groundwater substitution:** groundwater substitution transfers occur when sellers choose to pump groundwater in lieu of diverting surface water supplies, thereby making water available for transfer. Sellers making water available through groundwater substitution actions are agricultural and municipal and industrial (M&I) users.
- **Reservoir release:** buyers could acquire water by purchasing surface water stored in reservoirs owned by non-Project entities (not part of the CVP or SWP). To ensure that purchasing this water would not affect downstream users, Reclamation would limit transferred water to what would not have otherwise been released downstream absent the transfer. Additionally, the reservoir can only refill storage when downstream users

would not have otherwise captured this water, either in downstream reservoirs or at the CVP and SWP or other pumps in the Delta.

- Cropland idling: cropland idling makes water available for transfer that would have been used for agricultural production.
- Crop shifting: water is made available when farmers shift from growing a higher water use crop to a lower water use crop. The difference between the water used by the two crops would be the amount of water that can be transferred.
- Conservation: conservation transfers must include actions to reduce the diversion of surface water by the transferring entity by reducing irrecoverable water losses. The amount of reduction in irrecoverable losses determines the amount of transferrable water.

Table 2 lists the agencies that have expressed interest in selling water and the potential maximum quantities available for sale under Alternative 2. Actual quantity of water sold could be less, depending on hydrology, the amount of water the seller is interested in selling in any particular year, the interest of buyers, and compliance with Central Valley Project Improvement Act (CVPIA) transfer requirements, among other possible factors. Alternative 3 would not include cropland idling or crop shifting transfers, and the amount of water potentially available for sale is reduced. Alternative 4 would not include groundwater substitution transfers, and the upper limit for potential transfers would be further reduced.

Water transfers must be consistent with State and Federal law. Transfers involving water diverted through the Delta are governed by existing water rights, applicable Delta pumping limitations, reservoir storage capacity and regulatory requirements.

The EIS/EIR analyzed potential transfers to CVP contractors. These potential transfers could be conveyed through the Delta using either CVP or SWP facilities, depending on availability. Some transfers may not involve CVP contractors as sellers, but they may use CVP facilities. Any non-CVP water that would use CVP facilities would need a Warren Act contract.

**Table 2. Potential Sellers (Upper Limits)**

Water Agency	Maximum Potential Transfer (acre-feet per year) <sup>1</sup>
<b>Sacramento River Area of Analysis</b>	
Anderson-Cottonwood Irrigation District	5,225
Burroughs Farms	2,000
Conaway Preservation Group	35,000
Cranmore Farms	8,000
Eastside Mutual Water Company	2,230
Glenn-Colusa Irrigation District	91,000
Giusti Farms	1,000
Henle Family Limited Partnership	700
Lewis Ranch	2,310
Natomas Central Mutual Water Company	30,000
Pelger Mutual Water Company	3,750
Pleasant Grove-Verona Mutual Water Company	18,000
Princeton-Codora-Glenn Irrigation District	13,200
Provident Irrigation District	19,800
Reclamation District 108	55,000
Reclamation District 1004	27,175
River Garden Farms	16,000
Sutter Mutual Water Company	36,000
Sycamore Mutual Water Company	20,000
Te Velde Revocable Family Trust	7,094
<b>American River Area of Analysis</b>	
City of Sacramento	5,000
Placer County Water Agency	47,000
Sacramento County Water Agency	15,000
Sacramento Suburban Water District	30,000
<b>Yuba River Area of Analysis</b>	
Browns Valley Irrigation District	8,100
Cordua Irrigation District	12,000
<b>Feather River Area of Analysis</b>	
Butte Water District	17,000
Garden Highway Mutual Water Company	14,000
Gilsizer Slough Ranch	3,900
Goose Club Farms and Teichert Aggregates	10,000
Nevada Irrigation District	15,000
South Sutter Water District	15,000
Tule Basin Farms	7,320
<b>Merced River Area of Analysis</b>	
Merced Irrigation District	30,000
<b>Delta Region Area of Analysis</b>	
Reclamation District 2060	6,000
Reclamation District 2068	7,500
Pope Ranch	2,800
Yolo Ranch	8,000

<sup>1</sup> This does not represent the amount of water that would be transferred, and the total transfers would be limited to less than 250,000 acre-feet in any one year, based on the buyers' demands for transfers.



## **Environmentally Preferable Alternative**

Section 1505.2(b) requires that, in cases where an EIS has been prepared, the Record of Decision (ROD) must identify all alternatives that were considered, specifying the alternative or alternatives which were considered to be environmentally preferable. The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources (CEQ 40 Most Asked Questions number 6(a)).

In choosing the environmentally preferable alternative, Reclamation considered impacts to all resources, and on balance Alternative 3, No Cropland Modifications, would have the least environmental effects to certain natural resources. Alternative 3 has a lower potential to affect vegetation and wildlife, particularly the giant garter snake, by idling rice fields and reducing habitat. Alternative 4, No Groundwater Substitution, would have a reduced potential to effect groundwater levels, water quality, streamflow, and land subsidence. For these reasons, Alternative 4 would be the Environmentally Preferable Alternative for its reduced effects to natural resources as compared to the other alternatives. None of the alternatives have the potential to cause effects to historic properties.

## **Basis of Decision**

Reclamation's decision to move forward is based on how the alternatives meet the project's purpose and need, the magnitude of environmental effects, and the ability to apply mitigation to reduce those effects.

While the alternatives would affect different resources in different ways, once mitigation is incorporated into the project, there would be no significant adverse impacts associated with implementation of Alternative 2. Because potentially significant impacts of Alternative 2 can be fully mitigated, and Alternative 2 more fully meets the purpose and need for the project, Reclamation has chosen to implement Alternative 2.

## **Purpose and Need**

The purpose of the Proposed Action is to facilitate and approve voluntary water transfers from willing sellers upstream of the Delta to water users south of the Delta, and in the San Francisco Bay Area. Water users have the need for immediately implementable and flexible supplemental water supplies to alleviate shortages.

All action alternatives meet the purpose and need, but Alternative 2 has the most flexibility for water users to obtain water supplies from multiple sources. The No Action Alternative would not meet the purpose and need.

## Environmental Issues Evaluated

During January 2011, public scoping sessions on the development of the Long-Term Water Transfers EIS/EIR were held in Chico, Los Banos, and Sacramento. Key issues raised during the public scoping process that are applicable for inclusion in the EIS/EIR are listed below. The public in the Seller Service Area and not in the Buyer Service Area provided these comments.

- Water transfers could result in long-term impacts to groundwater, by decreasing groundwater levels and adversely affecting groundwater users that are not participating in transfers.
- The cumulative effects analysis should include all water transfers and programs that result in additional groundwater pumping in the Sacramento Valley region.
- Water transfers could result in impacts to adjacent water users, local economies, and fish and wildlife.

The alternatives were evaluated to address these issues and potential impacts to the range of environmental and socioeconomic resources relevant to NEPA and CEQA. The action alternatives have the potential to result in significant impacts to several resources (including water supply, groundwater, air quality, vegetation and wildlife, and agricultural land use) before mitigation. The differences between alternatives for these impacts include:

- *Water supply:* groundwater substitution transfers in Alternatives 2 and 3 could decrease flows in surface water bodies following a transfer while groundwater basins recharge. The change in surface water flows could decrease CVP and SWP water supply in upstream storage and Delta diversions. Mitigation Measure WS-1 (Streamflow Depletion Factor) would fully mitigate this effect.
- *Groundwater:* groundwater substitution transfers in Alternatives 2 and 3 could cause a reduction in groundwater levels, migration of poor quality groundwater, and subsidence in the seller areas. These effects would be avoided through implementation of Mitigation Measure GW-1 (Mitigation and Monitoring Plans).
- *Air Quality:* groundwater substitution transfers in Alternatives 2 and 3 could increase emissions of air pollutants from operating groundwater pumps, but these effects would be reduced through implementation of Mitigation Measures AQ-1 (Reducing pumping to reduce emissions) and AQ-2 (Operate electric engines).
- *Vegetation and Wildlife:* groundwater substitution transfers in Alternatives 2 and 3 could reduce stream flows supporting natural communities in small streams, but these impacts would be reduced and mitigated by implementation of Mitigation Measure GW-1 (Mitigation and Monitoring Plans). Cropland idling transfers in Alternatives 2 and 4 could affect giant garter snake when idling rice fields, but these effects are greatly reduced by incorporating environmental commitments to maintain water in delivery canals and drainage ditches.

- *Agricultural Land Use:* cropland idling transfers under Alternatives 2 and 4 could decrease the amount of lands characterized as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland under the Farmland Mapping and Monitoring Program (FMMP). Cropland idling would also be included in Alternative 2, but would be less frequent than in Alternative 4 because Alternative 2 has more potential ways to make water available for transfer. The potentially significant impact under Alternative 4 would be avoided through implementation of Mitigation Measure LU-1 (Avoid changes in FMMP land use classifications).
- *Regional Economics:* cropland idling and crop shifting transfers under Alternatives 2 and 4 could reduce employment, labor income, and economic output for businesses and households linked to agricultural activities in areas transferring water (Butte, Colusa, Glenn, Solano, Sutter, and Yolo counties). However, employment, labor income, and economic output would be reduced in the buyer's areas without the project (No Action Alternative), and by comparison the impacts would be similar to implementing the No Action Alternative.
- *Indian Trust Assets:* the potential range of actions included in the action alternatives would have no effect on Indian Trust Assets.

## **Mitigation Monitoring and Reporting**

Implementation of Alternative 2 could result in potential significant environmental impacts associated with water supply, air quality, groundwater resources, and vegetation and wildlife. Implementation of mitigation measures and environmental commitments will be required as a condition of approving water transfers to alleviate potential impacts. The mitigation measures, the responsible party for their implementation, and various reporting mechanisms are provided in Appendix V to the Final EIS/EIR. Reclamation and the SLDMWA are adopting and including these mitigation measures in any water transfer approval.

## **Section 7 of the Federal Endangered Species Act (ESA)**

On December 15, 2008, the U.S. Fish and Wildlife Service (USFWS) issued a biological opinion on the coordinated long-term operations of the CVP and SWP on Delta smelt (USFWS 2008). Similar to the USFWS biological opinion on delta smelt, National Oceanic Atmospheric Administration Fisheries Service (NOAA Fisheries) issued a biological opinion on June 4, 2009 on the effects of continued long term coordinated operations of the CVP and SWP on listed anadromous fish (NOAA Fisheries 2009).

On October 21, 2019, the USFWS and NOAA Fisheries issued new biological opinions for the Reinitiation of Consultation on the Coordinated Long-Term Operation of the CVP and SWP. These new opinions evaluate the effects of transferring water from July 1 through November 30 on Delta smelt and listed anadromous species, expanding the time of year transfers could occur by two months (previous opinions analyzed July 1 through September 30). Reclamation completed the NEPA process and signed a Record of Decision on February 18, 2020 to implement these Biological Opinions, and any transfers entered into would adhere to conditions in these new biological opinions.

Transfers of water through the Delta were included in the project descriptions and subsequent effects analysis in each of these opinions (those from 2008 and 2009, and the newer opinions from 2019). Reclamation relies on these consultations to satisfy ESA compliance for anadromous fish and delta smelt. The opinions included the following operational criteria applicable to water transfers:

- A maximum amount of water transfers is 600,000 AF per year in dry and critical dry years and dry years (following dry or critical years). For all other year types, the maximum transfer amount is up to 360,000 AF.
- Transfer water will be conveyed through DWR's Harvey O. Banks (Banks) Pumping Plant or Jones Pumping Plant during July through November consistent with the new biological opinions.

Analysis in the Final EIS/EIR deferred to the analysis associated with these opinions with regards to transfer timing through the Delta, and will adhere to these timeframes, or any applicable timeframes if these biological opinions are superseded.

Reclamation consulted under Section 7 of the ESA with the USFWS for this action. All action alternatives evaluated in the EIS/EIR considered impacts to ESA-listed species and impacts to these species were a consideration in comparison with the No Action Alternative.

During preparation of the Draft EIS/EIR, Reclamation determined that approving water transfers that allowed idling of rice fields may affect, and was likely to adversely affect the Giant Garter Snake (*Thamnophis gigas*). The USFWS issued a biological opinion on June 4, 2015, which was subsequently invalidated by the court on July 5, 2018. Reclamation reinitiated consultation and provided the USFWS with a Biological Assessment that addressed the court's concerns on November 6, 2018. The USFWS provided its Biological Opinion to Reclamation on May 17, 2019, and Reclamation will adhere to the terms and conditions in this Biological Opinion and will make these terms and conditions part of any approval for transferring water made available as a result of idling rice.

## **Section 106 Compliance**

Since these water transfers use existing facilities and land uses remain the same (within historic ranges of use), Reclamation has no consultation requirements under Section 106 of the National Historic Preservation Act (NHPA) as the undertaking does not have the potential to effect historic properties, pursuant to 36 CFR § 800.3(a)(1). There would be no ground disturbing activities, land alteration, or construction proposed that would effect existing or potential cultural resources. Reservoir operations remain unchanged as the proposed actions would be within the historic ranges of operation.

## **Comments Received on the Final EIS**

Reclamation and SLDMWA received comments from five agencies or organizations, they were: Aqualliance; the Delta Stewardship Council; Soluri Meserve on behalf of the Central Delta

Water Agency, the South Delta Water Agency, and Local Agencies of the North Delta; Mohan, Harris, Ruiz & Rubino, LLP on behalf of the South Delta Water Agency, and the Central Delta Water Agency; and the U.S. Environmental Protection Agency. The U.S. Environmental Protection Agency provided a letter stating that they had reviewed the Final EIS and have no further comments on the project. The four remaining commenters reiterated comments provided on the Draft, Supplementary, and Final documents. The commenters raised some new issues, and those were considered as described in the following paragraphs.

Aqualliance questioned whether the comments from Michael Billiou had been addressed, leading to the discovery that an attachment to Appendix S regarding Mr. Billiou's comments had been omitted; this attachment has been added to the document and posted for the public and other agencies to view. Aqualliance also stated that the document needed to be recirculated because groundwater conditions had been updated for the Final EIS/EIR, however, the additional information did not change any of the effects from implementing the alternatives and Reclamation will not be recirculating the Final EIS as there was no new information to consider (40 CFR 1502.9(c)1). Aqualliance also suggested a long list of additional projects that should be considered in the cumulative effects analysis, however, the suggested projects would not add to cumulative effects from the project and they are not considered further. Aqualliance also suggested the mitigation measure GW-1 was inadequate because it did not explicitly require mitigation planting to be done at or near the location where the vegetation loss occurs; Reclamation believes the mitigation measure is more than protective of riparian vegetation, and the requirement to replace vegetation at greater than a one to one ratio that will preserve the function of the vegetation is sufficient to mitigate any loss. While not explicitly stated, vegetation will be replanted in areas where the loss occurs.

Aqualliance and Soluri Meserve both suggested the Final EIS/EIR was not well organized, and impermissibly relied on older draft documents that could not be included in the Final document because the court had vacated the earlier Final EIS/EIR and decision. Reclamation and SLDMWA only relied on those portions of earlier documents that were found to be adequate by the court, and specifically updated those portions of the document that were not invalidated. Reclamation and SLDMWA were careful to explain the organization of the document in the Supplemental EIS and Revised EIR and included or incorporated all of the relied upon portions of earlier documents in the Final EIS/EIR so as to facilitate understanding the project by the agencies and affected public (40 CFR 1502.9(b), 1502.19, 1503.4(c)).

Soluri Meserve raised two additional issues with regard to the project description; first, they asserted that the annual limit of 250,000 acre-feet of water transfers that was added to the project description is de facto mitigation, and second, the BiOp for GGS limits transfers to two of the next six years. With respect to the limit of 250,000 AF, that amount is based on historical transfer patterns, and is well above the actual amounts transferred by the project proponents in any given year since 1992 when the CVPIA specifically authorized Reclamation to approve transfers. The limit of 250,000 acre-feet is part of the description of what is transferable and does not act to limit effects from the project. Second, Soluri Meserve's assertion that he BiOp limits transfers to two of the next six years is not accurate, and they have misrepresented the information in the BiOp regarding Reclamation's historical account of the pattern of past transfers with respect to how often transfers are expected to occur in the future. However, the BiOp for the GGS makes clear that transfers could occur every year over the next six years, and

the analysis in the BiOp is conservatively based on the possibility of transfers in each of the next six years.

The Delta Stewardship Council reiterated comments that the Final EIS/EIR approves a multi-year transfer program, even though the document is clear that transfers are of a single year nature, and approval would be required annually. These comments were responded to in multiple locations in the Final EIS/EIR, and Reclamation was clear that any multi-year transfers that are considered may require additional environmental analysis, and if multi-year transfers were contemplated a Consistency Determination from the Delta Stewardship Council will be sought; Reclamation fully intends to follow this process if multi-year transfers are proposed.

Mohan, Harris, Ruiz & Rubino, LLP on behalf of the South Delta Water Agency, and the Central Delta Water Agency asserted that approving water transfers whereby the seller would substitute groundwater to continue growing crops was not authorized by the CVPIA or the California Water Code. These comments were received in 2014 on the Draft EIS/EIR and were fully addressed in the Final EIS/EIR in appendix R in comment responses to comments LA12-1, 49, and 56, and NG06-6. Reclamation is confident that it approves water transfers consistent with the CVPIA and the California Water Code.

Reclamation fully considered the comments received on the Final EIS/EIR and concluded that no additional information had been provided that would change its decision.