

RECLAMATION

Managing Water in the West

Finding of No Significant Impact

2014 San Luis & Delta-Mendota Water Authority Water Transfers

Revised FONSI 14-10-MP

Recommended by:



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Date:

10/3/14

Concurred by:

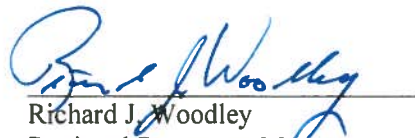
for 

Lee Mao
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Date:

10/3/14

Approved by:



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Date:

Oct. 3, 2014



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

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Background

The U.S. Department of Interior, Bureau of Reclamation (Reclamation) and the San Luis & Delta-Mendota Water Authority (SLDMWA) prepared a joint Environmental Assessment/Initial Study (EA/IS) on the proposed action for approving water transfers to south-of-Delta (SOD) Central Valley Project (CVP or Project) water users within the SLDMWA's service area who are experiencing water shortages in 2014. Reclamation is the Federal lead agency for the EA pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended, and SLDMWA is the State lead agency for the IS pursuant to the California Environmental Quality Act (CEQA). In April 2014 Reclamation approved a ~~This~~ Finding of No Significant Impact (FONSI) ~~that summarizes~~ ~~summarized~~ the analysis from the Reclamation and SLDMWA EA/IS dated April 2014. ~~Because Reclamation was unable to move transfer water across the Delta during the previously approved transfer window contained in the Biological Opinions on the Continued Long-term Operations of the CVP/SWP (National Marine Fisheries Service [NMFS] 2009; U.S. Fish and Wildlife Service [USFWS] 2008) (NMFS and USFWS BOs), Reclamation has revised the Proposed Action to include pumping water at the C.W. Jones Pumping Plant through November 15, 2014. Expansion of the transfer window to continue through November 15, 2014, could only pose potential impacts to aquatic resources, so Reclamation updated that impact analysis in this document. Reclamation has determined that there are no additional impacts to other resource categories identified in the April 2014 EA/IS and therefore the findings for those resources remain valid and have not been updated. The EA/IS was revised in September 2014 to incorporate additional analysis for potential impacts to aquatic resources for pumping transfer water at Jones Pumping Plant through an expanded transfer period of October through November 15, and this revised EA/IS is attached to this FONSI, and incorporated by reference. Additional findings for aquatic resources have been added to the findings section of this FONSI. Only text that appears in redline/strikeout format (such as this text) is new or changed.~~

To help facilitate the transfer of water to SOD CVP water users experiencing water shortages, Reclamation is considering whether it can approve and facilitate individual water transfers between willing sellers and buyers. Reclamation has approval authority over water transfers that involve Project Water and Base Supply water, or the use of CVP facilities. Reclamation would approve each transfer on an individual basis, but this document refers to them collectively as the 2014 SLDMWA Transfers. Water transfers would occur from willing sellers within the Sacramento Valley to SOD buyers within SLDMWA. The transfer water would be conveyed, using CVP facilities, to water users experiencing water shortages in 2014 and require supplemental water supplies to meet anticipated demands. Reclamation would review and approve, as appropriate, proposed water transfers in accordance with the Draft Technical Information for Preparing Water Transfer Proposals in 2014 (Reclamation and DWR, October 2013), state law and/or the Interim Guidelines for Implementation of the Water Transfer Provisions under the Central Valley Project Improvement Act (CVPIA) (Reclamation 1993).

Alternatives Including Proposed Action

No Action Alternative

Under the No Action Alternative, Reclamation would not approve the proposed transfer of Base Supply and/or Project Water from willing Sacramento River Settlement Contract (SRS Contract) sellers to users that farm within the area served by SLDMWA in 2014. However, other transfers that do not involve the CVP or CVP contractors may occur under the No Action Alternative. Additionally, Base Supply and/or Project Water transfers within basins would continue to occur and would still require Reclamation's approval. Some CVP contractors that are not included in this EA/IS may decide they are interested in selling water to buyers at a later time, however additional NEPA analysis would be required before those transfers could proceed.

Under the No Action Alternative, agricultural and urban water users will face shortages in the absence of water transfers. CVP and State Water Project (SWP) water service contractors' initial allocations are 0 percent, and Settlement Contractors and refugees have been notified that the portion of the Contract Total to be made available this year is 75 percent, though this number may be adjusted further. These users may take alternative water supply actions in response to shortages, including increased groundwater pumping, cropland idling, reduction of landscape irrigation, or water rationing. Water users may also seek to transfer water from others, which may require additional NEPA or CEQA analysis. In the absence of water transfers, growers may not have enough water to meet demands, and some permanent crops could be lost.

Proposed Action

The Proposed Action is the transfer of water in contract year 2014 to Participating Members of the SLDMWA. Reclamation has approval authority over potential transfers of Base Supply and/or Project Water, or transfers that involve the use of CVP facilities.

The Proposed Action includes potential transfers of water at times when the Delta is in balanced conditions from 15 entities north of the Delta (NOD) to 24 entities SOD (San Joaquin and Santa Clara Valleys). Given that Reclamation's current water supply estimate is 0 percent to CVP water service contractors, and 75 percent to CVP Settlement Contractors; plus the Department of Water Resources' initial water supply estimate is 50 percent to SWP Settlement Contractors, it is highly unlikely that SLDMWA would be able to transfer enough water to meet demands. Table 2-1 in the EA/IS (page 2-2) shows potential upper limits for water transfers based on the current water supply estimates. This list represents those agencies with whom SLDMWA may negotiate water transfers. It is not possible to determine which water transfer negotiations would be successful, what sellers would ultimately transfer water to SLDMWA, or how much water would ultimately be transferred. For this reason, modeling and analysis assumes the higher quantities provided in Table 2-1 (75 percent of contract supply for CVP Settlement Contractors) to display the impacts that would be associated with providing higher transfer quantities to SLDMWA.

Administratively, Reclamation would evaluate each proposal individually, as it is received, to determine if it meets state law or CVPIA requirements. Reclamation has followed this process in past years when approving transfers (such as the Drought Water Bank in 2009 and water transfers in 2013).

The Proposed Action is for sellers to potentially make available up to 175,226 AF of water based on a 75 percent CVP water supply forecast for Settlement Contractors. Sellers could make water available for transfer through groundwater substitution, cropland idling, or crop shifting. Other transfers not involving the SLDMWA and its participating members could occur during the same time period. The Tehama-Colusa Canal Authority (TCCA) released a separate EA/IS to analyze transfers from a very similar list of sellers to the TCCA Member Units. These two documents reflect different potential buyers for the same water sources; that is, the sellers have only the amounts of water listed in Table 2-1 in the EA/IS (page 2-2) available for transfer, but the water could be purchased by SLDMWA or TCCA members.

The existing CVP and SWP facilities could be used to convey transfer water as long as existing regulatory constraints are satisfied. Water transfers conveyed through the Delta would be assumed to lose a portion of the water obtained from the Sacramento River and its tributaries to carriage losses (water required to meet water quality and flow-related objectives) in the Delta. Additional losses may be assessed for conveyance losses along the California Aqueduct, San Luis Canal, the Delta-Mendota Canal, and the San Felipe federal facilities.

Water transfers involving conveyance through the Delta would take place within the operational parameters of the ~~Biological Opinions on the Continued Long-term Operations of the CVP/SWP (National Marine Fisheries Service [NMFS] 2009; U.S. Fish and Wildlife Service [USFWS] 2008) (NMFS and USFWS BOs)~~ NMFS and USFWS BOs and any other operating rules in place at the time the water transfers are implemented, with the exception of expanding the period such that water can be pumped at Jones Pumping Plant through November 15. Because of the extremely dry conditions, Reclamation is consulting-conferring frequently with NMFS and USFWS on CVP and SWP operations relative to the NMFS and USFWS BOs and special status fish species in the Delta. The key current operational parameters applicable to conveyance of transfer water include:

- Transfer water will be conveyed through the SWP's Harvey O. Banks Pumping Plant (Banks PP), under permits for Joint Point of Diversion, and the CVP's C.W. "Bill" Jones Pumping Plant (Jones PP) only during the transfer window that is acceptable to USFWS and NMFS, typically July through September, or as amended through consultation with USFWS and NMFS. The transfer window will continue through November 15, 2014, to allow the conveyance of 90 TAF of transfer water (including carriage water) that has been retained in Shasta and Folsom reservoirs for diversion from the south Delta at the Jones Pumping Plant.
- If conditions remain critically dry, water diverted from the Delta would be in compliance with existing outflow criteria and pumping restrictions imposed by the State Water Resources Control Board (SWRCB) through Reclamation and DWR's Temporary Urgency Change Petition approved by the SWRCB on January 31, 2014, as may be amended.
- Include alerts and triggers related to the presence of listed threatened or endangered fish species that will reduce or suspend conveyance of transfer water while fish movement is assessed (based on fish agency recommendations using monitoring alert and triggers in NMFS BiOp Action IV.1.1).

DWR and Reclamation would determine availability of Delta pumping capacity throughout the transfer period.

Comments on the EA (Comments received on the April 2014 EA)

Comment letters were received from the City of Chico, California Department of Fish and Wildlife (DFW), Thomas Lippe (an attorney representing AquAlliance), and a joint comment letter from AquAlliance and California Water Impact Network (CWIN). Each of these four letters presented comments regarding analysis in the EA/IS. The City of Chico's letter expressed specific concerns with the EA/IS's lack of alternatives, the groundwater and cumulative impact analysis, and indicated that an EIS/EIR is required. DFW's letter expressed concurrence with the Biological Resources findings and provided some recommendations for further coordination and clarification of the Environmental Commitments. Mr Lippe's comments focused on the air quality analysis and claim that the air quality analysis is flawed. AquAlliance and CWIN's letter expressed concern with water transfers in general with an emphasis on groundwater substitution transfers and related groundwater pumping impacts. Among other issues raised, their comment letter claims that there are significant faults with the groundwater analysis and the findings related to special status species. Their letter further claims that the findings in the EA/IS are not supported by any credible current data or information. Many of AquAlliance and CWIN's comments provided in their April 2, 2014 letter were very similar to comments they had previously provided to Reclamation on other public environmental review processes. The comment references AquAlliance's comments on the 2009 Drought Water Bank, the 2010-2011 Water Transfer Program, and 2013 Water Transfers; written responses to these materials were provided in conjunction with the final NEPA and CEQA environmental review documents completed for those other actions.

Reclamation considered every comment in approving these transfers; below is a discussion of the substantive issues raised regarding the analysis and how it was considered in Reclamation's decision. Reclamation's decision is the approval or disapproval of the proposed transfer of Base Supply or Project Water and is independent of the lead agency's decision under CEQA. All issues raised in the comment letters have been specifically addressed in Appendix B of the EA/IS.

Scope of the Action

Three of the four comment letters received suggest that Reclamation and SLDMWA should prepare an EIS/EIR. The comment letters cite numerous reasons for needing to prepare an EIS/EIR, including: significant impacts associated with several different resources (air quality, groundwater, biological, water supply and economics) and cumulative impacts; the degree to which the action may establish a precedent for future actions; and the degree to which the action may adversely affect endangered or threatened species or its habitat. NEPA requires federal agencies to prepare a detailed Environmental Impact Statement (EIS) on all major Federal actions significantly affecting the quality of the human environment. The EA/IS provides a thorough and systematic evaluation of a broad range of environmental issues and demonstrates that no potentially significant environmental impact may occur as a result of the Proposed Action, as mitigated. Preparation of an EIS/EIR therefore is not warranted or required. In addition, the

Proposed Action is not seen as a precedent setting action continuing on into the future, but rather provides for only temporary transfers during 2014 to meet the short-term needs of water suppliers that are facing water shortages.

Groundwater Analysis

The City of Chico and AquAlliance and CWIN raised several questions and concerns related to the groundwater resources analysis and the proposed mitigation to address groundwater pumping impacts.

Water Code §1745.10 provides that groundwater substitution transfers may not occur unless (a) they are consistent with a legally-adopted groundwater management plan; or (b) if no groundwater management plan has been adopted, the water supplier proposing a transfer has determined that the transfer will not cause or contribute to long-term overdraft of the basin. Reclamation requires that proposed transfers meet these requirements. Reclamation has analyzed historic well data and determined that while groundwater elevations have fluctuated seasonally each year, groundwater elevations have remained relatively stable in basins from which transfers have occurred. Please see the groundwater monitoring data from 2013 water transfers and the well hydrographs included in Appendix F. This information includes several years of groundwater level data from the basins that are involved in these proposed transfers. This information is evidence of these fluctuations and general recovery. In addition to Reclamation's requirements, districts that are required to comply with local groundwater management plans or ordinances have demonstrated their compliance to the satisfaction of the groundwater management entity.

Reclamation also requires each entity proposing to transfer water to comply with a monitoring program to determine: (1) the extent of surface water-groundwater interaction in the areas where the groundwater is pumped for the transfer, (2) the direct effects of transfer pumping on the groundwater basin, and (3) the magnitude and potential significance of any effects on other legal users of water. Reclamation also reviews information and data for each well that is proposed as a source of substitute water to ensure that there would be no significant impacts to fish and wildlife. Wells that are anticipated to have significant impacts to the environment are not approved for use as a source of substitute water for transfers. If, in the unlikely event a well is approved and later is shown to have impacts, transfer entities are required to mitigate impacts to other legal users of water, or the local environment and economy. Impacts that must be mitigated would include any contribution to long-term overdraft conditions, a reduction in water levels in non-participating wells, a change in the hydrologic regime of streams such that the ecological health of the stream is impaired, land subsidence, and degradation of groundwater quality. These requirements ensure any potential impacts are adequately addressed. As indicated by the graphs included in Appendix F of the EA/IS representing groundwater conditions in several basins underlying the proposed transfer areas, these conditions have been effective in the past for ensuring that no significant impacts occur, and that groundwater levels rebound to former levels.

Fish and Wildlife

Reclamation appreciates DFW's review of the EA/IS and, particularly, DFW's review and assistance in the development of the Environmental Commitments related to potential giant garter snake (GGS) effects. DFW requested clarification on the rationale for not modeling surface water changes. Surface water

modeling was not completed for the EA/IS because the maximum quantity of water transfers relative to total reservoir storage and river flows would be minor and the Proposed Action would not result in significant impacts to fish. Reclamation completed formal Section 7 consultation with the USFWS and received a Biological Opinion from the USFWS prior to approving this FONSI or any water transfers involving cropland idling.

Reclamation and SLDMWA will continue to collaborate and consult with DFW and USFWS on implementation of water transfers, particularly on transfers in areas of suitable habitat for GGS. As included in the Environmental Commitments, Reclamation will coordinate with USFWS and GGS experts to identify priority suitable habitat for GGS and discourage idling in those priority areas. Reclamation will also coordinate with DFW, as appropriate, in the provision of information regarding water transfer proposals, monitoring, and review of the monitoring data collected.

AquAlliance and CWIN's comments raised concern that minimization and monitoring measures would not be adequate to address potential impacts to terrestrial species, wetlands, streams, groundwater and fisheries. Monitoring Plans include provisions for monitoring potential effects to wetland areas, and Mitigation Plans must include measures to address unanticipated impacts. Extensive monitoring of all transfer actions on the ground as well as the ongoing Sacramento Valley waterway flow monitoring will occur to ensure no significant impacts occur to fisheries, terrestrial species and waterways. Text has been added to Chapter 3 of the EA/IS to incorporate and clarify this information.

Document Presentation and Public Notification

AquAlliance and CWIN suggested that the document format and the public notification process were confusing and deficient for the public. The document format is very similar to many other joint NEPA and CEQA documents prepared by Reclamation, as well as several other public entities. The EA/IS was provided for a 20-day public review and posted on Reclamation's website, where AquAlliance and CWIN obtained them for review.

Findings

In accordance with NEPA, the Mid-Pacific Regional Office of Reclamation has found that the approval of proposed water transfers in 2014 is not a major federal action that would significantly affect the quality of the human environment. Consequently, an Environmental Impact Statement is not required. This determination is supported by the following factors:

- 1. Water Resources:** Under the Proposed Action, Reclamation would operate CVP reservoirs to convey transferred water to the buyers. This reoperation would change reservoir storage and river flows. River flows may be reduced by a small amount in April, May, and June to store transferred water until it can be conveyed through the Delta. The flow changes would occur from Shasta Dam downstream to the point where the water would have been diverted without transfers. The potential change in flow would be on average a daily increase of about 1,010 cfs in October and part of

~~November to allow the maximum conveyance of transfer water (90,000 AF) included in this document. The potential change in flow would be about 420 cfs if supplies increase to allow the maximum transfers included in this document, but flow changes would be about 205 cfs if the supplies do not increase. These estimates show the average change during June (the month with the greatest potential change in river flow), but instantaneous peak flows may be slightly higher. During dry conditions in 1977, flows in the Sacramento River near Colusa averaged 6,560 cfs in May and 6,244 cfs in June (USGS 2014).~~ The flow changes would be a fairly small percent of the overall river flows. Keeping water in storage in Shasta Reservoir could help conserve the cold water pool in a year where reservoir levels are so low; however, the very small change from the transfers would be a minor benefit.

Water transfers would be conveyed through existing facilities. Water transfers involving conveyance through the Delta will be implemented within the operational parameters of the Biological Opinions on the Continued Long-term Operations of the CVP and SWP and any other regulatory restrictions in place at the time of implementation of the water transfers.

The Proposed Action could include cropland idling in addition to the idling that would occur under the No Action Alternative, which has the potential to increase sediment erosion into nearby waterways. Similar to the No Action Alternative, growers would implement measures to prevent the loss of topsoil. There would be little-to-no increase in sediment transport resulting from wind erosion or winter runoff from idled rice fields under the Proposed Action and the resultant impact would be less than significant.

Water made available for transfer via groundwater substitution could affect groundwater hydrology. The potential effects could be short-term declines in local groundwater levels, interaction with surface water, and land subsidence. The potential for subsidence as a result of the Proposed Action is small if the groundwater substitution pumping is small compared to overall pumping in a region. The minimization measures described below require all groundwater substitution transfers to monitor for subsidence or provide a credible analysis why it would be unlikely. The process of real-time subsidence monitoring will measure any changes in the ground surface elevation, whether subsidence is short-term or long-term.

Under the Proposed Action, additional water supply would benefit water users who receive the transferred water. The Proposed Action would not adversely affect surface water resources.

- 2. Groundwater Resources:** Groundwater substitution transfers could affect groundwater hydrology. The potential effects would be decline in groundwater levels, interaction with surface water, land subsidence, and water quality impacts.

Well reviews, monitoring, and mitigation plans will be implemented under the Proposed Action to minimize potential effects to groundwater resources. All plans will be coordinated and implemented in conjunction with local ordinances, basin management objectives, and all other applicable regulations. Required information is detailed in the Draft Technical Information for Preparing Water Transfer Proposals (DWR and Reclamation 2013) for groundwater substitution transfers.

The reviews and plans will be required from sellers for review by Reclamation during the transfer approval process. Reclamation will not approve transfers without adequate mitigation and monitoring plans. Therefore, the Proposed Action will not have a significant adverse impact on groundwater resources.

3. Air Quality: The proposed Project would result in the potential for significant environmental impacts associated with air quality. Mitigation measures have been incorporated into the Proposed Action to reduce impacts to less than significant levels. The five mitigation measures for the Proposed Action listed below have been adopted by Reclamation and SLDMWA. The Proposed Action will not result in significant impacts to air quality.

- All diesel-fueled engines would either be replaced with an engine that would meet the applicable emission standards for model year 2013 or would be retrofit to meet the same emission standards.
- Natural gas engines will be retrofit with a selective catalytic reduction device (or equivalent) that is capable of achieving a NO_x control efficiency of at least 90 percent.
- Any engines operating in the area of analysis that are capable of operating as either electric or natural gas engines would only operate with electricity during any groundwater transfers.
- Selling agency would reduce pumping at diesel or natural gas wells to reduce emissions to below the thresholds.
- Operation of the engines at Pleasant Grove-Verona Mutual Water Company will be limited to 6.5 hours per day per engine or 202 cumulative hours for all engines.

4. Geology and Soils: Increased cropland idling in the Sacramento Valley to make water available for transfer is not likely to substantially increase wind erosion of sediments. In the buyer area, water is likely to be used on permanent crops (such as orchards and vineyards). The soils underlying these fields have a low risk of wind erosion; therefore, continued cultivation is not likely to substantially increase erosion.

Groundwater substitution transfers could reduce groundwater levels, which could decrease water pressure and result in a loss of structural support for clay and silt beds. The analysis finds that the potential for land subsidence from increased groundwater pumping (under the No Action Alternative and the Proposed Action) would be small.

5. Biological Resources:

FISHERY RESOURCES

Water transfers would slightly increase river flows downstream of the point of diversion relative to the No Action Alternative during the transfer period. Reclamation is consulting frequently with USFWS and NMFS on CVP and SWP operations relative to the BOs and special status fish species in

the Delta. Special status fish species would not be affected by the Proposed Action beyond those impacts considered by the BOs and current consultations with NMFS and USFWS, and subsequent coordination with NMFS and USFWS on drought-related water operations.

The Proposed Action would result in increased conveyance through the Delta during the transfer period (July through ~~September~~November 15, unless it shifts based on feedback from NMFS and USFWS). Special status fish species are generally not in the Delta during the transfer period (July-~~September~~November 15) and effects to these fish species from transferring water during this timeframe were considered in the NMFS and USFWS BOs. Reclamation revised the EA/IS in September 2014 to look at the potential impacts for moving transfer water in October through November 15. That analysis is provided in the revised EA, and does not identify any significant impact to salmonids, delta smelt, green sturgeon, or longfin smelt. Transfers would slightly increase inflow into the Delta, but would not change outflow conditions as compared to the No Action Alternative. The incremental effects of transfers on special status fish species in the Delta from water transfers would be less than significant.

SPECIAL STATUS SPECIES

The following is a discussion of effects of rice idling actions on special status wildlife species that are present in the sellers' area. Environmental Commitments have been incorporated into the Proposed Action to reduce potential impacts to special status wildlife species. The Environmental Commitments are listed in Section 2.4 of the EA/IS. Additional special status animal and plant species have the potential to occur in the project area, but would not be affected by the Proposed Action. The EA/IS appendices H and I list special status animal and plant species that could be present in the project area and the reason for no effect. Reclamation completed formal Section 7 consultation with the USFWS and received a Biological Opinion from the USFWS prior to executing this FONSI.

Rice idling could affect special status species that use rice fields for forage, cover, nesting, breeding, or resting. Under the Proposed Action, a maximum of 30,244 acres of rice could be idled in Colusa, Glenn, Sutter, and Yolo counties.

Rice idling actions could affect the GGS that use flooded rice fields for foraging and protective cover habitat during the summer months. GGS require water during their active phase, extending from spring until fall. During the winter months, GGS are dormant and occupy burrows in upland areas. While the preferred habitat of GGS is natural wetland areas with slow moving water, GGS use rice fields and their associated water supply and tail water canals as habitat, particularly where natural wetland habitats are not available. Because of the historic loss of natural wetlands, rice fields and their associated canals and drainage ditches have become important habitat for GGS.

Rice idling would affect available habitat for GGS. The GGS displaced from idled rice fields would need to find other areas to live and may face increased predation risk, competition, and reduced food supplies. This may lead to increased mortality, reduced reproductive success, and reduced condition

prior to the start of the overwintering period. Rice idling transfers would be subject to the Environmental Commitments described in the EA/IS, which include measures to protect GGS.

As included in the Environmental Commitments, Reclamation will coordinate with USFWS and GGS experts to identify priority suitable habitat for GGS and discourage idling in those priority areas. Implementation of Environmental Commitments will also protect movement corridors for GGS by maintaining water in irrigation ditches and canals. Some GGS would successfully relocate to find alternate forage, cover, and breeding areas.

Rice idling under the Proposed Action would have a less than significant impact on GGS because the Environmental Commitments would avoid or reduce many of the potential impacts associated with displacement of GGS. Some individual snakes would be exposed to displacement and the associated increased risk of predation, reduced food availability, increased competition, and potentially reduced fecundity. The number of individual snakes affected is expected to be small because Environmental Commitments avoid areas known to be priority habitat for GGS or where GGS populations are known to occur. The Environmental Commitment to maintain water in canals near idled fields would also protect GGS.

RIPARIAN/WETLAND HABITAT and SENSITIVE AREAS

The changes in river flows would likely be a fairly small percent of the overall river flows. The Proposed Action would result in minor effects to any riparian habitat near the rivers. Environmental Commitments limiting the amount of rice acres idled in historic tule marsh habitat and maintaining water in ditches would support flows to existing wetlands. The incremental effect to wetlands under the Proposed Action would be less than significant.

Several adopted Habitat Conservation Plans (HCP) and Natural Community Conservation Plans (NCCP) exist within the project area, including the Natomas Basin HCP, South Sacramento HCP, and the Yuba-Sutter NCCP/HCP. Water transfers under the Proposed Action would have a less than significant impact on the natural communities that are covered in these plans because of the temporary nature of the transfers and the minimal changes in flows and reservoir levels associated with water transfers. The Environmental Commitments under the Proposed Action would minimize impacts to special status species that are covered in the plans. The Environmental Commitments also require sellers to address third-party impacts from groundwater substitution specifically in areas where groundwater subbasins include conservation banks or preserves for GGS. The Proposed Action would not conflict with HCP and NCCP provisions.

- 6. Cultural Resources:** The Proposed Action would allow for water transfers via groundwater substitution and/ or cropland idling/shifting in the Sacramento Valley and are conveyed to the SLDMWA through existing facilities. No new construction, ground disturbing activities, or changes in land use would occur. Since the Proposed Action has no potential to affect historic properties, no cultural resources would be impacted as a result of the Proposed Action.

7. **Indian Trust Assets:** The Proposed Action does not include areas where Indian Trust Assets have been identified; therefore, there is no potential to affect Indian Trust Assets.
8. **Indian Sacred Sites:** Proposed Action does not include Federal land; therefore, there is no potential for Indian Sacred Sites to be affected by the Proposed Action.
9. **Environmental Justice:** Under the Proposed Action, cropland idling transfers could disproportionately and adversely affect minority and low-income farm workers by reducing agricultural production. A maximum of 30,244 acres of rice could be idled in Glenn, Colusa, Sutter, and Yolo counties. Based on the maximum idling acreage under the Proposed Action, approximately 91 farm workers jobs would be lost in the region (0.7 percent of total 2012 farm employment) due to rice idling. This magnitude of job losses is within historic annual fluctuations in farm worker employment. Annual changes in farm worker employment from 2002 to 2012 were 1 percent or greater in all but 1 year (EDD 2012). All farm worker effects would be temporary and only occur during the 2014 crop season. Cropland idling under the Proposed Action would not result in an adverse and disproportionately high effect to farm employment.

Water transfers under the Proposed Action would provide water to agricultural users in the buyers' area. Increased water supply would be used to irrigate permanent crops that face water shortages under the No Action Alternative. This would provide employment for the labor intensive, permanent crops, which would provide farm employment for low income and minority workers. This would be a beneficial effect to environmental justice populations.

10. **Socioeconomics:** Based on the estimated direct effects and employment multipliers, the total economic effect to employment of the proposed rice idling actions would be a loss of 260 jobs in Colusa, Glenn, Sutter, and Yolo counties. These job losses would be less than 1 percent of the total employment in both regions. At the regional level, this effect would not be substantial. Further, the Proposed Action would last for one year and growers could put the land back into agricultural production in the subsequent year if water supplies increase. Therefore, economic effects from cropland idling would be a temporary effect.

Effects may be more adverse in local communities. Rural communities have a much smaller economic base, and any changes to economic levels would be more adverse relative to a large regional economy. Reclamation and participating buyers and sellers will limit cropland idling as a result of the Proposed Action to less than 20 percent of the acreage of a particular crop in a district to reduce the potential for economic effects. Water Code Section 1745.05(b) requires a public hearing under some circumstances in which the amount of water from land idling exceeds 20 percent of the water that would have been applied or stored by the water supplier absent the water transfer in any given hydrologic year. Third parties would be able to attend the hearing and could argue to limit the transfer based on its economic effects.

In the buyer area, water transfers under the Proposed Action would provide water for irrigation that would help maintain crop production. Even with transfers, growers would continue to face water shortages and take actions to address reduced water supplies. Transfer water would be used to

irrigate permanent crops to keep them alive through the dry year and support long-term production. Permanent crops are typically more labor intensive and have higher value than field crops. Continued irrigation of permanent crops through the 2014 irrigation season would support farm labor and provide revenue to the region through 2014 and in the long-term. Transfer water would help local farm economies in the San Joaquin Valley by providing employment and wages to farm laborers. Transfers would protect growers' investments in permanent crops and farm income. Transfers would provide long-term economic benefits by keeping permanent crops alive through the 2014 dry conditions. If permanent crops do not survive through 2014, there would be substantial long-term adverse economic effects to the buyer area by reducing employment and income in subsequent years. The Proposed Action would benefit the regional economy in the buyer area.

11. Cumulative Impacts: The cumulative impacts analysis considers other potential water transfers that could occur in the 2014 transfer season, including non-CVP water transfers and other existing water transfer and groundwater programs, including the Lower Yuba River Accord. Given the short-term nature of the Proposed Action, Environmental Commitments and minimization measures, impacts to the previously discussed resource categories associated with the Proposed Action will not contribute to a cumulatively significant adverse impact when added to other past, present, and reasonably foreseeable future actions. The Proposed Action would not adversely affect the human environment and therefore would not contribute to any long-term effects on environmental resources. The Proposed Action will not result in cumulative impacts to any of the resources previously described.