

**Initial Study and
Proposed Mitigated Negative Declaration
for
Butte Water District 2025 Water Transfer Program**

Lead Agency: Butte Water District

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November 2024

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SECTION 1 PROJECT DESCRIPTION

1.1 Project Introduction and Background

The Butte Water District (BWD) proposes to sell up to 20,534 acre-feet (af) of water to the participating member districts of the State Water Contractors Incorporated¹ or other South of Delta purchasers, including one or more Central Valley Project contractors (Buyers) during the 2025 irrigation season. Depending on hydrologic conditions, Buyers may seek up to approximately 300,000 af of transfer water from various willing sellers in the Sacramento Valley during the 2025 irrigation season. Purchasing this water would lessen potential water supply shortages to these Buyers that may occur as a result of dry hydrologic conditions and regulatory restrictions on pumping in the Delta.

As a willing seller, BWD would make up to 20,534 af of water available to Buyers by idling rice cropland (i.e., non-irrigation of farmland by voluntary participants) and/or through groundwater substitution, (i.e., using groundwater supplies instead of surface water supplies). Water made available by crop idling and/or groundwater substitution within the boundaries of the BWD would then be retained and stored by the Department of Water Resources (DWR) at Lake Oroville for delivery to Buyers. Groundwater pumping, if applicable, would only occur within that portion of the BWD boundaries that lie within Sutter County and in a manner consistent with the Groundwater Sustainability Plan (GSP) developed under the Sustainable Groundwater Management Act (SGMA).

1.1.1 Butte Water District

BWD was formed in 1956 and may divert up to 133,200 af of water under the terms of a 1969 Agreement on Diversion from the Feather River with DWR and allocated through a 1970 Joint Operating Agreement with Richvale Irrigation District, Biggs-West Gridley Water District and Sutter Extension Water District, known collectively as the Joint Districts. BWD's water is diverted from Thermalito Afterbay. BWD proposes to not divert a portion of its water under this one-year transfer, which would allow DWR to deliver a portion of the foregone water to Buyers through the State Water Project (SWP) and/or Central Valley Project (CVP). BWD serves surface water to approximately 12,237 acres, of which approximately 5,958 acres served are used for rice production. Of the 32,505 acres within BWD's boundaries, approximately 24,638 acres are irrigable land.

The 1969 Joint Water Districts Board (Joint Board) water rights settlement agreement (1969 Agreement) requires written approval from DWR before the districts can transfer water outside the service areas of the Joint Board. An agreement between DWR and the proposed water purchasers to store or transport the water through the SWP or CVP facilities may also be required to implement the transfer.

The proposed project would idle up to 20 percent of the total irrigable land in BWD's service area in 2025. Thus, idling would occur within approximately 24,638 acres within the District, so up to 4,928 rice acres could be idled under this program.

¹ The State Water Contractors, Inc. is an association of 27 public agencies that purchase water under contract from the California State Water Project. Depending on the hydrologic conditions existing in the spring of 2025, all or a portion of these agencies may elect to receive all or a portion of the water purchased. BWD may also sell to other South of Delta purchasers, including Central Valley Project contractors, or individual State Water Project contractors, or individual persons or entities within a CVP or SWP contractor service area with appropriate approval as necessary to accomplish such a transfer.

The accepted Evapo-Transportation Rate of Applied Water (ETAW)² for rice culture is 3 af per acre per growing season, which is consistent with the recent ETAW rates used for water transfers in the Sacramento Valley based on crop idling of rice acreage as a result of coordination between DWR and Sacramento Valley water agencies. Thus, the water made available for transfer by reduced crop evapotranspiration for the projected idled acreage would be up to approximately 14,784 acre feet (4,928 acres x 3 af/acre). Under the 1969 Agreement, BWD's water entitlement is subject to curtailment under certain circumstances related to dry hydrologic conditions. If BWD's entitlement is curtailed 50 percent for the 2025 irrigation season, BWD will not participate in a land idling transfer; however, in the event of a lesser curtailment, it may still participate in a land idling transfer. BWD may participate in a groundwater substitution transfer for its lands located in Sutter County under any curtailment scenario.

BWD would also generate water transfer via groundwater substitution from two BWD wells located in Sutter County. One of these wells has a production capacity of approximately 4,000 GPM and the other a capacity of approximately 3,500 GPM. Both wells are powered by electric pumps. Assuming that pumping could commence on May 1, 2025, these two pumps could generate approximately 5,750 af for transfer by September 30, 2025. BWD also owns 3 groundwater monitoring wells which are an integral part of their groundwater monitoring program. In a groundwater substitution program, groundwater is pumped and used for agricultural purposes in lieu of surface water supplies. The equivalent surface water supplies are then not diverted and are made available for transfer. BWD has participated in multiple prior single-year water transfer via groundwater substitution, including recently in 2021 and 2022. In those transfers, BWD conducted extensive monitoring for any environmental or third-party impacts. No impacts have been observed or reported to BWD as part of any prior groundwater substitution transfers.

Thus, BWD could make a total of 20,534 AF of water available for transfer in 2025 through crop idling (14,784 af) and groundwater pumping (5,750 af).

1.1.2 Project Location

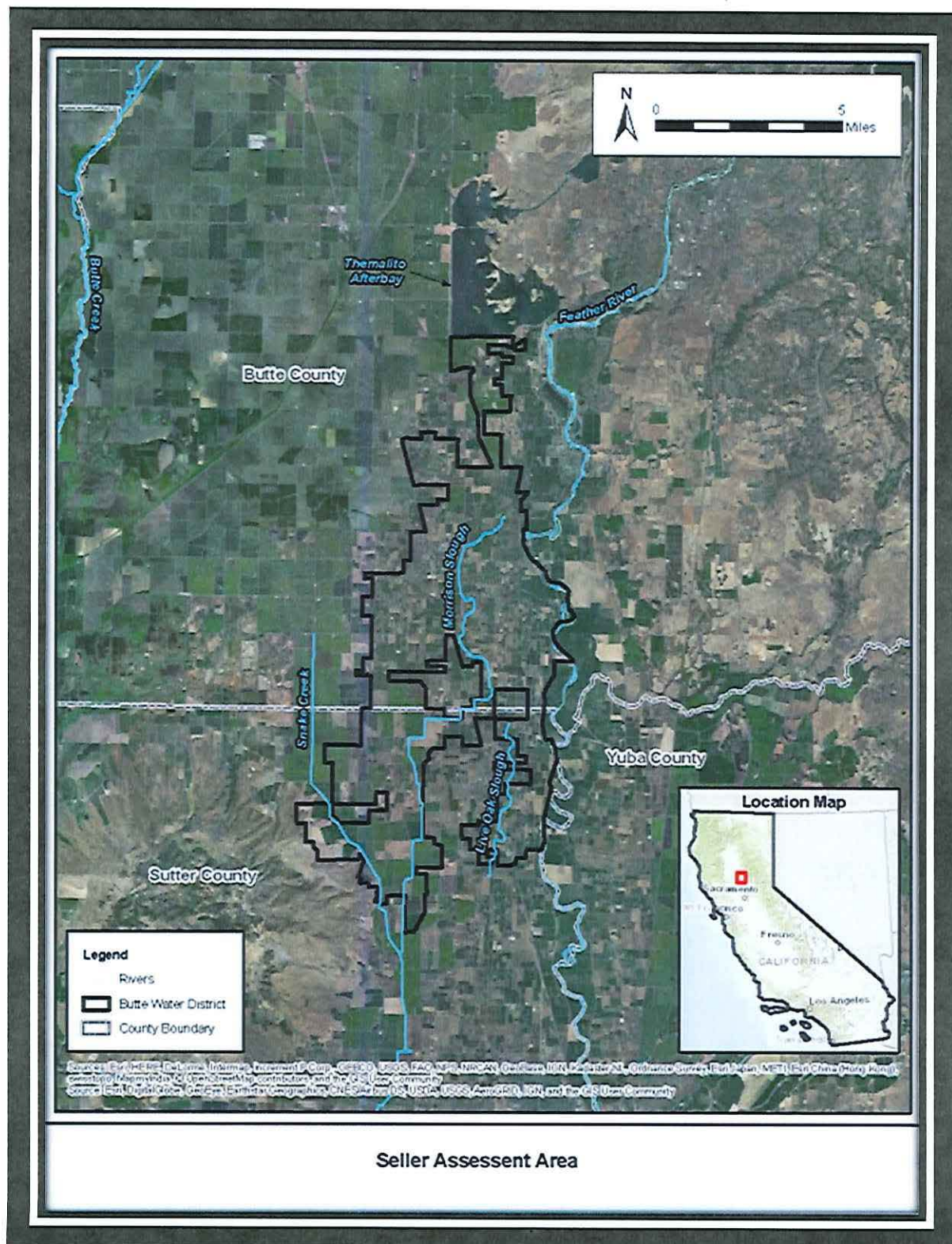
The project area, from which the water for this transfer will be made available, is defined by the BWD boundaries which encompass approximately 32,505 acres in the northern Sacramento Valley in Butte and Sutter Counties (Figure 1). Of that acreage, 24,638 acres are irrigable. Within the BWD boundaries approximately 5,958 acres are dedicated primarily to the production of rice.

Land idled for the purpose of this transfer will be drawn from the rice acreage, to the exclusion of irrigable BWD acreage dedicated to other crops or to habitat. Up to 20 percent of the total irrigable land in the BWD could be idled under this program, or 4,928 acres (24,638 acres x 20 percent). Because the program will be offered to all eligible growers and it is anticipated that there will be more interest than BWD desires to offer, a wide dispersal of acreage enrolled in the program is expected. Only cultivated rice land that is subject to seasonal, regular farming practices will be affected. Adjoining areas, non-rice land, other irrigated lands, drains, wetlands and waterfowl habitat will not be affected, as those areas will receive their normal entitlement and canals and drains will operate at normal operating capacity.

BWD's proposed transfer will fully comply with DWR's *DRAFT Technical Information for Preparing Water Transfer Proposals in 2019*, as applicable to land idling and groundwater substitution transfers, including as applicable monitoring and reporting for groundwater conditions before, during and after the transfer period.

² ETAW is defined as the portion of the total evapotranspiration that is provided by irrigation. The portion of evapotranspiration met by precipitation occurring during the growing seasons or stored as soil moisture within the root zone before the growing season does not qualify as transferable water. ETAW values used for water transfer calculations are based upon crop water demands reflecting average rainfall and evaporative demand.

Figure 1 Project Location



1.2 Water Availability and Transfer

No new construction or improvements by BWD, Buyers, or DWR would be necessary for the production and transfer of this water.

Water that would not be diverted would be available for transfer to Buyers through SWP facilities operated by DWR, including Lake Oroville, or transferred by DWR to CVP facilities. Water would accrue in storage on the basis of estimates of the amount of water that would have been consumed on the idled land but for the program. That is, the water that would have been either consumed in the process of crop use for idled lands or applied to crops which will receive groundwater substitution supplies, would be available for transfer.

The portion of applied water, which would have normally returned to the Feather/Sacramento River system as tailwater or groundwater discharge to surface waters, would remain available for instream use and diversion by others and would not be transferred.

As the ETAW for rice culture in the Sacramento Valley is calculated at 3 af per acre per growing season, each acre of idled rice production will make available for transfer 3 af of water throughout the growing season. The maximum quantity of water that could be made available under this program by crop idling would be 14,784 acre-feet (4,928 acres x 3 af/acre).

The typical growing season for rice in California is May through September. The potential ETAW demand across these months is shown in Table 1.1 with the corresponding water production expectations based on BWDs providing the maximum amount of transfer water from fallowing 20 percent of their acreage.

The proposed project would extract up to 5,750 af of groundwater from two BWD production wells. These wells have approximate production capacities of 3,500 GPM and 4,000 GPM respectively. BWD also owns three groundwater monitoring wells and uses these wells to monitor groundwater levels in the vicinity of the production wells to ensure that no substantial depletion of groundwater supplies occurs as a result of groundwater production. BWD has operated these wells in the past at similar production rates and, consistent with extensive monitoring and reporting for such past usage, BWD observed no significant impacts on groundwater levels, groundwater supplies, or impacts to third parties or environmental resources. BWD does not anticipate any adverse impacts resulting from substantial depletion of groundwater supplies or interference with groundwater recharge resulting in a net deficit in aquifer volume or lowering of local groundwater table level. BWD will collect data from the three monitoring wells prior to and during the production period (May through September) and will cease operation of the production wells if monitoring data indicate any significant depletion of groundwater levels or if claims of third-party impacts are substantiated. Consistent with a monitoring and reporting program established under DWR's *DRAFT Technical Information for Preparing Water Transfer Proposals in 2019*, BWD will maintain a process to receive, consider and act on any third-party impact claims, including reducing or terminating pumping in the event of third-party impact.

Table 1.1
Water Production Schedule

	May	June	July	August	September	Total
ETAW in Percent	18	23	24	21	14	
Water Production In Acre Feet from Crop Idling	2,661.12	3,400.32	3,548.16	3,104.64	2,069.76	14,784
Water Production In Acre Feet from Groundwater Pumping	1,150	1,150	1,150	1,150	1,150	5,750
Total Production For Transfer in 2025 in Acre-Feet						20,534

An objective in planning a groundwater substitution transfer is to ensure that groundwater levels recover to their seasonal high levels before transfers begin. Groundwater levels generally recover at the expense of streamflow, but the changes in streamflow are primarily during the wet season, when losses to streamflow minimally affect other legal users of water. For the purposes of this MND, the streamflow losses are estimated to be 13 percent of the groundwater pumped to make surface water available for transfer. Thus, water made available for transfer from groundwater substitution would be 5,003 AF (5,750 AF minus 13 percent from streamflow losses). If the streamflow depletion factor is increased as reflected in an amendment to the *Draft Technical Information For Preparing Water Transfers* then BWD would apply that streamflow depletion factor. The quantity of surface water available for transfer would be reduced by these estimated streamflow losses.

During the implementation of the proposed project, water transferred by BWD would be deemed transferred at the BWD's points of diversion on the Thermalito Afterbay and custody would then transfer to Buyers. As the operator of the SWP, depending on the hydrologic and regulatory conditions controlling SWP operations, DWR may be able to utilize Lake Oroville storage to facilitate the transfer during periods when Delta conditions prevent export of the transfer water. DWR would make every effort to use Lake Oroville to regulate the water in a manner which would allow for delivery of the water through the Sacramento-San Joaquin Delta, for export through the Banks or Barker Slough or Jones Delta Pumping Plants for ultimate delivery to Buyers.

When exporting water from the Delta, DWR must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, biological opinions, interim or final court orders (including interim operating plans), and regulations relating to Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other legal users, including legal in-basin demands. These requirements include applicable SWRCB orders, Army Corps of Engineers (Corps) permits, Biological Opinions and other regulatory constraints including any relevant judicial orders in effect at the time of the operation. The requirements establish water quality and flow requirements, and limits on the rate of export of water that can be pumped by the state and federal pumping plants. The proposed project does not increase Delta export rates beyond permitted limits.

The current transfer period at Banks Pumping Plant (SWP) and Jones Pumping Plant (CVP) is typically limited to July through September. Additional restrictions could further limit either or both pumping plants' capacity for export of transfer water.

As a requirement for transfers, carriage water (a portion of the transfer that is not diverted in the Delta and becomes Delta outflow) will be used to maintain water quality in the Delta for through-Delta transfers. DWR estimates that approximately 20 to 30 percent of the water transferred through the Delta would be necessary to enable the maintenance of water quality standards, which are based largely upon the total amount of water moving through the Bay-Delta system. Therefore, this transfer could yield up to approximately 13,851 af (20,534 af total water available for transfer less 13 percent streamflow losses for groundwater substitution transfers [5,003 af], and 19,709 af [14,784 af from crop idling plus 5,003 af from groundwater substitution] minus 30 percent carriage water losses) to Buyers. At the end of the irrigation season, the amount of carriage water actually required is calculated by DWR. Depending upon the hydrologic year type and other operational constraints, the actual amount of carriage water assessed for the transfer may vary somewhat from this estimate.

1.2.1 Use of Water by Buyers

It is contemplated that the Buyers will be required to purchase the water by approximately April 20, 2025. If the water is purchased, Buyers would take delivery of this water in a manner physically identical to their typical SWP or CVP deliveries. One buyer may take 100 percent of the water BWD makes available or a group of buyers may share on a pro-rata basis. The transfer water would provide additional resource options to Buyers to mitigate potential dry-year water shortage conditions in 2025. This water would represent backfilling of a shortfall of water normally and historically received into Buyers' service areas. Accordingly, any water transferred under the proposed Project would not represent a dependable long-term increase in supply. As such, no adverse Project-specific impacts to Buyers' service areas due to the proposed transfer would occur.

SECTION 2 INITIAL STUDY

The following Initial Study, Environmental Checklist, and evaluation of potential environmental effects (see Section 3) were completed in accordance with Section 15063(d)(3) of the State CEQA Guidelines to determine if the proposed project could have any potentially significant impact on the physical environment.

An explanation is provided for all determinations, including the citation of sources as listed in Section 4. A "No Impact" or "Less-than-significant Impact" determination indicates that the proposed project will not have a significant effect on the physical environment for that specific environmental category. No environmental category was found to have a potentially significant adverse impact with implementation of the proposed project.

INITIAL STUDY AND ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** Butte Water District 2025 Water Transfer Program
2. **Lead Agency Name and Address:** Butte Water District
735 Virginia Street
Gridley, California 95948
3. **Contact Person and Phone Number:** Donnie Stinnett, (530) 846-3100
4. **Project Location:** Refer to Section 1 (1.1.2) of the Mitigated Negative Declaration
5. **Project Sponsor's Name and Address:** Butte Water District
735 Virginia Street
Gridley, California 95948
6. **Description of Project:** Refer to Section 1 of the Mitigated Negative Declaration.
7. **Surrounding land uses and setting:** Agricultural/rural setting zoned for agricultural use.
8. **Other agencies whose approval is required:**

Buyers are all or some portion of the State Water Contractor, Inc.'s member agencies and/or San Luis and Delta Mendota Water Authority and its individual agencies persons or entities within the CVP or SWP service area. Depending on the hydrologic conditions existing in the spring of 2025, all or a portion of these agencies may elect to receive all or a portion of water purchased.

California Department of Water Resources: contract approval and CEQA compliance.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

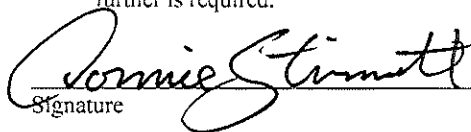
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology /Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards/Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

DETERMINATION:

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Signature

Donnie Stinnett
Printed Name

12/4/24
Date

Butte Water District
For

SECTION 3 EVALUATION OF ENVIRONMENTAL IMPACTS

I. AESTHETICS – Would the proposed Action:

Issues and Determination:	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a, b, d) **No Impact.** As there would be no construction activities with project implementation, no potential aesthetic resources would be impacted or altered. In addition, there would be no new sources of light and glare added to the project site. Hence, there would be no impacts to aesthetics with the proposed project.
- c) **Less than significant Impact.** The pattern of cropping in the area within BWD's jurisdiction would be altered slightly, in that somewhat more rice land would be idled due to the implementation of the proposed project (i.e., up to 20 percent of the total irrigable acreage). Idled land is a typical feature of the agricultural landscape in BWD's jurisdiction and would not differ substantially from the existing environmental setting. As such, there would be a less-than-significant impact to the existing visual character within the farmlands occurring in BWD's jurisdiction. BWD's proposed transfer would fully comply with the terms and conditions applicable to land idling transfers as set forth in DWR's *Technical Information for Preparing Water Transfer Proposals in 2019*.

II. AGRICULTURE RESOURCES: Would the proposed Action:

Issues and Determination:	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

a-c) No Impact. As a single-year activity, the proposed project would not convert any farmland (Prime, Unique, Important or otherwise) to non-agricultural uses. The proposed activity would result in a reduction in the amount of farmland irrigation during the 2025 growing season and an increase in the amount of land idled for that year. Participation in the proposed project would be solely voluntary. Zoning, agricultural conversion and Williamson Act issues would not be changed. No impact to agricultural resources would occur with project implementation.

III. AIR QUALITY: Would the proposed Action:

Issues and Determination:	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a-e) No Impact. The Project site is located in the Sacramento Valley Air Basin. To the extent less agricultural land would be cultivated, less air pollutant emissions would be emitted from normal farm practices (e.g., internal combustion engine emissions from tilling, seeding, pesticide application, etc.). These reductions in air emissions would be beneficial; however, such reductions (i.e., up to 20 percent of typical farming activities) would not be that noticeable within the Sacramento Valley Air Basin for the short project duration. Odors associated with farming activities may lessen to a minor degree, due to the decrease in farming activities during the growing season. Groundwater pumping will utilize existing electric pumps so there will be no air emissions from pumping activities. Overall, there would be no impacts to the air basin with project implementation.

IV. BIOLOGICAL RESOURCES – Would the proposed Action:

Issues and Determination:	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a) Less than Significant Impact with Mitigation Incorporation.

Special-status wildlife species that have the potential to occur within the project area are the giant garter snake (listed as state and federally threatened), the northwestern pond turtle (listed as a state species of special concern and federal proposed threatened), the Greater Sandhill Crane (listed as state threatened), the Bank Swallows (listed as state threatened), the winter-run Chinook salmon (listed as state and federally endangered), the Tricolored Blackbird (listed as state threatened), the delta smelt (listed as state and federally threatened), the longfin smelt (listed as state threatened), the steelhead (listed as federally threatened), and the green sturgeon (listed as federally threatened).

Fishery Resources

Under the proposed project, transfer water would be released from Lake Oroville from July through September. The largest quantity of transfer water would be made available in July and August. Feather River flows would increase and Sacramento River flows would also increase from the confluence of Feather River to the Delta. The largest change in flow could be approximately 135 cfs in July and August. For comparison, flows in the Feather River near Gridley averaged 7,692 cfs in July 2024 and 7,442 cfs in August 2024; 4,742 cfs in July 2023 and 5,900 cfs in August 2023; 4,467 cfs in July 2022 and 3,371 cfs in August 2022 (DWR). Flows in the Sacramento River at Freeport averaged 21,369 cfs in July 2024 and 21,935 cfs in August 2024; 14,060 cfs in July 2023 and 17,288 cfs in August 2023; and 11,985 cfs in July 2022 and 9,803 cfs in August 2022 (DWR).

The increases up to 135 cfs in the Feather River, Sacramento River, and the Delta would not be substantial enough to affect special status fish species. Adult migration by special status fish species, including Chinook salmon, steelhead, and green sturgeon would not be affected by slightly increased flows. The Sacramento-San Joaquin Delta is a migration corridor and seasonal rearing habitat for winter-run Chinook salmon and steelhead. It provides spawning and nursery habitat for Delta Smelt. This magnitude of flow increase would not reduce spawning habitat availability and incubation, increase redd dewatering or juvenile stranding, or reduce the suitability of habitat conditions during juvenile rearing of these species. Thus, the proposed project would result in less-than-significant impact to special status fish species.

Groundwater Substitution. Groundwater substitution transfers under the proposed project would reduce groundwater levels and potentially deplete surface water flows in rivers and creeks (see IX. Hydrology and Water Quality (b)). Surface water depletions in the Sacramento and Feather rivers as a result of groundwater substitution transfers would not be substantial, nor would they be of sufficient magnitude to affect special status fish species.

Terrestrial Resources

Cropland Idling. The following is a discussion of effects of rice idling actions on special status wildlife species that are present in the seller's area. Additional special status animal and plant species have the potential to occur in the project area, but would not be affected by the proposed project. Rice idling could affect special status species that use rice fields for forage, cover, nesting, breeding, or resting. Under the proposed project, a maximum of 4,928 acres of rice could be idled in Sutter and Butte counties.

Giant Garter Snake

The giant garter snake (GGS) has generally been found to prefer natural wetland areas with slow moving water. GGS will use rice fields and their associated water supply and tailwater canals for foraging and escape from predators as indicated in the Long-Term Water Transfers Environmental Impact Statement/Environmental Impact Report Final (Bureau of Reclamation and San Luis & Delta-Mendota Water Authority 2019).

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. This may lead to indirect effects such as reduced reproductive success, reduced condition prior to the start of the overwintering period, and increased predation risk. Because GGS in rice fields are within an active rice growing region that experiences variability in rice production and farming activities, they are already subject to these risks. If water levels in major canals in the sellers' areas decrease, GGS may have more limited aquatic habitat and options for movement through the areas.

Incorporation of Mitigation Measure BIO-1 is consistent with DWR's *DRAFT Technical Information for Preparing Water Transfer Proposals in 2019* which endorsed the Reclamation's and the San Luis & Delta-

Mendota Water Authority's 2019 Long-Term Water Transfers EIS/EIR protective measures for GGS. Mitigation Measure BIO-1 would reduce impacts of rice idling under the proposed project to a less than significant impact on GGS because it would avoid or reduce many of the potential indirect impacts associated with loss of habitat and 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 the Mitigation Measure avoids areas with highly suitable habitat for GGS. The measure to maintain water in canals near idled fields would also protect GGS. In addition, no more than 3 percent of average annual rice acreage in Butte and Sutter counties would be affected. Idling will also be limited to no more than 20 percent of the total irrigable lands in BWD.

Western Pond Turtle

Ditches and drains associated with rice fields provide suitable habitat for the western pond turtle. Actions that result in the desiccation of aquatic habitat could result in the turtle migrating to new areas, which in turn puts them at an increased risk of predation. If adequate water is not maintained in canals, the turtle may have limited movement corridors. Without best management practices to protect the turtle, this impact would be significant. Mitigation Measure BIO-1 requires that sellers maintain adequate water in major irrigation and drainage canals to provide movement corridors for aquatic species, including the pond turtle. This would be implemented in areas where cropland idling occurs. Canal water depths should be similar to years when transfers do not occur or, where information on existing water depths is limited, at least two feet of water would be sufficient. The mitigation measure minimizes impacts to western pond turtle because it would maintain aquatic habitat for the turtle and the opportunity to migrate to new areas; therefore, effects to the western pond turtle from cropland idling transfers would be less than significant after mitigation.

Special Status Bird Species and Migratory Birds

Many migratory bird species use seasonally flooded agricultural land for nesting and forage habitat during the summer rearing season. Among these are special-status species such as the black tern, which uses flooded rice land and emergent vegetation for foraging (for insects and small vertebrates) and for nesting. Reduction of seasonally flooded agricultural habitat could adversely affect local populations of special status species such as the black tern. However, the decisions regarding crop idling would have already been made prior to the onset of the species breeding season (May through August), such that terns returning to the area would be able to select appropriate nesting sites for that year. The maximum amount of rice idling would be 4,928 acres, which is approximately 2.3 percent of the average acreage (approximately 210,000 acres) of rice harvested in Sutter and Butte counties. Therefore, nesting habitat would be available in active rice fields nearby. The impacts to the species would be minor, and they would be further reduced through implementation of the mitigation measure aimed at the protection of GGS because best management practices would minimize idling near wildlife refuges that provide important habitat for terns. The practice to maintain water in canals near idled fields would also protect the tern by supporting emergent vegetation in canals for forage on small aquatic insects, emergent plants, and seeds.

Special-status bird species including bank swallows and tricolored blackbirds forage in rice fields near their nesting colonies. Although the rice plants are not tall or sturdy enough to support nests, the seasonally flooded fields provide resources required for breeding colony locations, which consist of open access to water and suitable foraging space with insect prey. The primary concern for the tricolored blackbird's association with rice fields is the use of the habitat as a source of insects and waste grain forage. Tricolored blackbirds may use rice fields year-round and would also use emergent vegetation in return ditches and irrigation canals associated with the seasonally flooded fields. The rice agriculture cycle provides insect forage in the flooded fields during the summer and waste grain forage over winter. Rice idling could affect the population's foraging distribution behavior and patterns and could reduce foraging and breeding habitat for these species.

In addition, many raptors forage in summer and/or winter over rice fields, preying on various wildlife, including waterfowl. A reduction in the number of waterfowl or other prey could affect local populations.

For the millions of birds that use rice fields during winter migration, this small reduction in crops planted is not expected to affect the amount of post-harvest flooded agriculture that provides important winter forage for migratory birds, particularly waterfowl and shorebirds. Farmers in the Sacramento Valley only flood-up a fraction of the cropland planted; typically, around 60 percent in normal water years (Miller et al 2010, Central Valley Joint Venture 2006) and as little as 15 percent in critically dry years (Buttner 2014). The decision on whether to flood is

not based on what was produced for the year but instead is determined by the availability of fall and winter water. Growers divert a separate water supply, pursuant to state water rights, in fall and winter for rice decomposition. Particularly during drier years (when transfers occur), the amount of land flooded is limited by availability of fall water supply rather than the amount of land that was planted during the irrigation season. Because the proposed project does not include transfers of water that would otherwise be used for rice decomposition or otherwise affect the availability of fall and winter water, it would not change the availability of water for post-harvest flooding and therefore would not result in a reduction of winter foraging and resting habitat for migrating birds.

The location of cropland idling does have the potential to affect the use of historic roost sites, particularly for sandhill cranes, which exhibit site fidelity (Zeiner et al. 1990), typically returning to the same location each year to winter. Idling fields within areas that sandhill cranes historically return to may affect their wintering distribution patterns due to reduced forage availability on idled or crop shifted fields. Although the birds would disperse as their main food source diminishes, cropland idling could affect the timing of dispersal and could negatively affect those individuals that have not had sufficient time to prepare for winter migration.

While the effects to migratory birds would be small overall because the maximum reduction in rice production would be within the historic range of variation, there may be localized significant effects on some birds that typically use sites that have fewer rice fields in production nearby. Incorporation of Mitigation Measure BIO-1 would minimize idling in known wintering areas that support high concentrations of wintering waterfowl and shorebirds, and water transfers would not include rice decomposition water and therefore would not reduce the availability of post-harvest forage. Incorporation of Mitigation Measure BIO-1 would reduce effects to migratory birds to less than significant.

Mitigation Measure BIO-1: Terrestrial Species Best Practices

Mitigation Measure BIO-1 includes measures to reduce and avoid impacts to terrestrial species associated with cropland idling transfers:

- Movement corridors for aquatic species (including western pond turtle and GGS) include major irrigation and drainage canals. BWD will keep adequate water in major irrigation and district owned and operated drainage canals, including but not limited to the Sutter Butte Canal, Lateral 4, Chandon Lateral, Hamilton Slough, Morrison Slough and Live Oak Slough. In irrigation and drainage canals that are not district-owned (Hamilton Slough, Morrison Slough and Live Oak Slough), BWD will work with landowners and local authorities to manage water levels. Canal water depths will be maintained at levels similar to years when transfers do not occur or, where information on existing water depths is limited, at least two feet of water will be considered adequate.
- Maintaining water in smaller drains and conveyance infrastructure supports key habitat attributes such as emergent vegetation for GGS for escape cover and foraging habitat. If crop idling occurs near the wildlife management areas, BWD will document that adequate water remains in drains and canals in those priority areas. Documentation may include flow records, photo documentation, or other means of documentation.
- Lands taken out of production will be dispersed throughout BWD's service area such that contiguity of idled lands would be minimized allowing for a mosaic of lands that could be utilized by GSG throughout BWD.
- BWD will avoid idling lands that have high habitat suitability for GGS. The determination of habitat suitability will be made through coordination with GGS experts, GIS analysis of proximity to historic tule marsh, and GIS analysis of suitable habitat (such as USGS efforts to map priority habitat). As appropriate, map updates will be provided to USFWS along with the related GIS data. In addition, fields abutting or immediately adjacent to federal wildlife refuges will be considered suitable habitat. When identifying fields to idle, selling agencies will give preference to areas that are less suitable for GGS habitat.
- Areas with known priority GGS habitat near BWD consist of wildlife management areas such as Gray Lodge Wildlife areas. This wildlife area is outside BWD's service area and will not be eligible to participate in BWD's land idling water transfers program. Riparian/wetland areas along Morrison

Slough and the Feather River also provide habitat for GGS. These areas, and fields directly adjacent to these areas, will not be eligible to participate in land idling water transfers. Participating landowners can request a case-by-case evaluation of whether a specific field would be precluded from participating in water transfers based on its proximity to riparian and wetland areas. Exceptions could include fields that are separated from priority habitat by existing barrier to GGS movement, such as paved roads, major waterways, and lands not suitable as GGS aquatic habitat (i.e. cultivated row crops, disturbed upland habitat). Exceptions may also be made based on the size and shape of a field and barriers between rice checks that would allow a portion of a larger field to remain in production while the remaining portion of the field is fallowed, but a minimum buffer distance of 200 feet will be maintained between GGS priority habitat and areas participating in cropland idling transfers.

- BWD will provide a map(s) to DWR by June of each year showing the parcels of rice land that are idled for the purpose of transferring water for that year.
- BWD will perform GGS best management practices during irrigation canal maintenance activities, including educating maintenance personnel to recognize and avoid contact with GGS, cleaning only one side of a conveyance channel per year to retain foraging areas and cover habitat for GGS within maintained canals and ditches, and avoid the stockpiling of vegetation and sediment debris adjacent to canals and ditches. BWD will create and distribute a GGS best management practices information pamphlet to maintenance personnel that includes photos of GGS and their habitat, a map depicting locations of where GGS have been identified during recent trapping efforts and descriptions of best management practices. If any GGS are detected during maintenance activities, BWD will report this information to the California Natural Diversity Database (CNDDB).
- In order to limit reduction in the amount of over-winter forage for migratory birds, including greater sandhill crane, cropland idling transfers will be minimized near known wintering areas in Butte Sink (which is outside BWD's boundaries).

b, c) Less Than Significant Impact.

Under the proposed project, transfer water would be released from Lake Oroville from July through September. The largest quantity of transfer water would be made available in July and August. Feather River flows would increase and Sacramento River flows would also increase from the confluence of Feather River to the Delta. The largest change in flow could be approximately 135 cfs in July and August. For comparison, flows in the Feather River near Gridley averaged 7,692 cfs in July 2024 and 7,442 cfs in August 2024; 4,742 cfs in July 2023 and 5,900 cfs in August 2023; 4,467 cfs in July 2022 and 3,371 cfs in August 2022 (DWR). Flows in the Sacramento River at Freeport averaged 21,369 cfs in July 2024 and 21,935 cfs in August 2024; 14,060 cfs in July 2023 and 17,288 cfs in August 2023; and 11,985 cfs in July 2022 and 9,803 cfs in August 2022 (DWR).

As discussed in (a), groundwater substitution transfers could result in streamflow depletion in rivers and creeks, specifically Morrison Slough, Snake Creek, and Live Oak Slough. If these changes result in noticeable changes in the waterways, they could affect riparian or wetland communities. However, the magnitude of groundwater pumping is small and not likely to affect these waterways. Effects to these communities would be less than significant.

Cropland idling transfers would only reduce agricultural diversions by the amount of water consumptively used by the crop (when planted), and the remaining water that typically runs off as tailwater would still be diverted. Irrigation tail water flows to wetlands would have minimal effects because this water would still be in the agricultural delivery system. As a result, wetlands would continue to receive irrigation tail water flows. The incremental effect to wetlands under the proposed project would be less than significant.

d) Less Than Significant Impact with Mitigation Incorporation.

Wildlife that is dependent on water as a means of moving from one area to another may be unable to relocate due to the parched landscape. GGS present in areas of rice idling would have to move across dewatered habitat to find suitable areas with water. Moving across dewatered areas could expose snakes to a number of potential impacts

associated with the need to relocate. These include the energetic costs associated with relocation, a reduction in food supplies associated with the decrease in habitat, increased predation, potential for increased competition in new habitats, and potentially reduced reproduction and recruitment for those individuals displaced. Dewatered areas could also affect movement of the western pond turtle that occupy drainage ditches and irrigation canals. Dewatering could require the turtle to migrate to new areas, which in turn puts them at an increased risk of predation. This impact could be potentially significant. Mitigation Measure BIO-1 would require sellers to maintain water in irrigation canals and to reduce idling near known GGS populations and movement corridors for species to relocate if necessary.

Maintenance water in smaller drains and conveyance infrastructure support key habitat attributes such as emergent vegetation which GGS and western pond turtle utilize for escape cover and foraging habitat. Ensuring water remains in these key habitats reduces the potential impact to suitable habitat and the need for GGS individuals and western pond turtle to relocate. Mitigation Measure BIO-1 would reduce potential impacts to movement corridors of GGS and western pond turtle; therefore, impacts would be less than significant after mitigation.

e, f) No Impact. The proposed project would not conflict with any local, regional or state policy, ordinance or conservation plan in effect for the area. Hence no impact to adopted habitat conservation plans would occur with project implementation.

V. CULTURAL RESOURCES – Would the proposed Action:

Issues and Determination:	<i>Less Than Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a-c) No Impact. The proposed project does not involve any land alteration and thus no archeological disturbances are possible within the proposed project's scope. In addition, with no construction activities proposed, there would be no disturbances to potential burial sites or cemeteries. Therefore, no impact to cultural resources would occur with project implementation.

VI. Energy – Would the proposed action:

Less Than

Issues and Determination:

	<i>Less Than Potentially Significant Impact</i>	<i>Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a) **Less than significant Impact.**

Under the proposed project, transfer water may be stored by DWR in Lake Oroville until the water could be moved to buyers. This could affect the pattern of power generation at the Oroville facilities. However, this would cause very little overall change in the long term. Consequently, the project would not result in long-term significant impacts to power supplies. Additionally, no new facilities will be constructed for the project resulting in consumption of energy resources. Although water transfer may result in increased demand on existing pumping plants in the Delta, this increase in energy use will be minor. Therefore, no significant impacts would occur as a result of the single-year water transfer program.

The proposed project would extract up to 5,750 AF of groundwater from two BWD production wells in Sutter County (East Butte subbasin). The groundwater substitution water transfers may increase groundwater pumping within the BWD boundaries in Sutter County. Groundwater that would flow naturally by gravity and pressure, would instead be extracted using existing pumps. This would result in increased energy use during the transfer period. However, this energy use needed to deliver the water is a necessary component of the project.

Consequently, the single-year water transfer will have a less than significant effect on energy and will not result in wasteful, inefficient, or unnecessary consumption of energy resources.

b) **No Impact.**

The proposed project does not conflict with or obstruct any state or local plan for renewable energy or energy efficiency in either the seller or buyers' assessment areas.

VII. GEOLOGY AND SOILS – Would the proposed action:

	<i>Less Than Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known				

fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **No Impact.** No project facility falls within an Alquist-Priolo Earthquake Fault Zone, as presented in the most recent Division of Mines and Geology Special Publication 42. Hence, no impact relating to fault rupture zones would occur with project implementation.
- b) **No Impact.** Based upon readily available soil map information, most of the project area is underlain by fine-textured, strongly structured soils, such as clay and silty clay. Such soils have a wind erodibility index of 86 (tons per acre per year) when in a dry, unvegetated condition (U.S Department of Agriculture 1993). Highly wind-erodible soils, such as fine sands and sands, have a wind erodibility index of 134-310. Therefore, the soils in the project area have a relatively low risk of wind erosion when left in a dry, unvegetated condition.
- c) **No Impact.** Soils in the proposed project area consist of clays with a flat terrain. The proposed project would not result in instability of existing soils. The use of the soils for this short-term project is in accordance with past farming practices and no landslides, lateral spreading, subsidence, liquefaction or collapse have occurred, to date.
- d) **No Impact.** Expansive soils are not known to occur within or on the proposed project site. Therefore, no impacts pertaining to expansive soils would occur with project implementation.
- e) **No Impact.** The proposed project would not involve the use of septic tanks or alternative wastewater treatment disposal systems to handle wastewater generation. Therefore, no impacts would result with implementation of the proposed project.

- f) **No Impact.** The proposed project does not involve any land alteration and thus no paleontological disturbances are possible within the proposed project's scope.

VIII. GREENHOUSE GAS EMISSIONS – Would the Proposed Action:

Issues and Determination:	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

a-b) Less than Significant Impact.

The greenhouse gas (GHG) analysis focuses on the following three pollutants: carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). The other two pollutant groups commonly evaluated in various GHG reporting protocols, hydrofluorocarbons and perfluorocarbons, are not expected to be emitted in large quantities because of the alternatives and are not discussed further in this section. Agricultural emissions represented approximately eight percent of California's GHG emissions in 2022 (CARB2022). Agricultural emissions represent the sum of emissions from agricultural energy use (from pumping and farm equipment), agricultural residue burning, agricultural soil management (the practice of using fertilizers, soil amendments, and irrigation to optimize crop yield), enteric fermentation (fermentation that takes place in the digestive system of animals), histosols (soils that are composed mainly of organic matter) cultivation, manure management, and rice cultivation.

Cropland Idling. The proposed project would idle up to 20 percent of the irrigable acreage within BWD's boundaries. While some field work, such as laser land leveling, may occur in idled fields by participating landowners, it is expected that substantially less field work will occur as a result of the proposed project than compared to no project conditions. By idling the land, less farm equipment will be utilized and less greenhouse gas will be emitted. Further, the proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Groundwater Substitution. This analysis estimates emissions using available emissions data and information on fuel type, engine size (hp), and annual transfer amounts included in the proposed alternatives. Existing emissions data used in the analysis includes:

- Electric utility CO₂ emission factors from TCR (2022)
- Emissions & Generation Resource Integrated Database (eGRID) CH₄ and N₂O emission factors from USEPA (USEPA 2022)

Each GHG contributes to climate change differently, as expressed by its global warming potential (GWP). GHG emissions are discussed in terms of CO₂ equivalent (CO₂e) emissions, which express, for a given mixture of GHG, the amount of CO₂ that would have the same GWP over a specific timescale. CO₂e is determined by multiplying the mass of each GHG by its GWP. This analysis uses the GWP from the

Intergovernmental Panel and Climate Change Fourth Assessment Report (Forster et al. 2007) for a 100-year time period to estimate CO₂e. This approach is consistent with the federal GHG Reporting Rule (40 CFR 98), as effective on January 1, 2014 (78 Federal Register 71904) and California's 2000-2014 GHG Emission Inventory Technical Support Document (CARB 2016). The GWPs used in this analysis are 25 for CH₄ and 298 for N₂O.

CARB uses a threshold of 25,000 metric tons CO₂e per year as a threshold for including facilities in its cap-and-trade regulation (17 CCR 95800-96023). Because the goal of the regulation is to reduce GHG emissions statewide, this threshold was deemed appropriate to assess significance.

Groundwater substitution could increase GHG emissions in the seller area, while cropland idling transfers, as discussed above, could reduce vehicle exhaust emissions. Cropland idling transfers could offset some of the emissions from groundwater substitution transfers, but the quantity of water transferred under each mechanism could be much less than the maximum 20,534 AF. Therefore, impacts were evaluated for the full quantity of groundwater substitution (5,750 af), without regard for potential offsets from idled land.

Emissions from groundwater substitution would not exceed the 25,000 metric tons CO₂e threshold per year. As a result, the proposed project would not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Additionally, groundwater extraction under the proposed project would be limited to withdrawals during the irrigation season of the 2025 contract year. Groundwater extraction under the proposed project would be limited to short-term withdrawals during the irrigation season. As such, the limited timeframe for the water transfer season would not have foreseeable incremental contributions to climate change.

Overall, with project implementation, greenhouse gas emissions impacts would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS – Would the proposed Action:

Issues and Determination:	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two				

	miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h)	Expose people or structures to a significant risk of loss, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a-h) No Impact.** The proposed project would not involve the transport or use of hazardous materials nor change any public exposure to hazards or hazardous materials beyond what is currently occurring with existing farming practices within BWD's jurisdiction. Herbicide and pesticides use would decrease by up to 20 percent from what is now occurring within BWD's service area due to the idling for one year. This minor decrease in the use of such chemicals may be viewed as beneficial, but would not substantially affect the overall physical environment. Overall, there would be no hazardous impacts with project implementation.

X. HYDROLOGY AND WATER QUALITY – Would the proposed Action:

Issues and Determination:	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

- a) **Less than significant impact.** Under the proposed project, transfer water would be released from Lake Oroville from July through September. The largest quantity of transfer water would be made available in July and August. Feather River flows would increase and Sacramento River flows would also increase from the confluence of Feather River to the Delta. The largest change in flow could be approximately 135 cfs in July and August. For comparison, flows in the Feather River near Gridley averaged 7,692 cfs in July 2024 and 7,442 cfs in August 2024; 4,742 cfs in July 2023 and 5,900 cfs in August 2023; 4,467 cfs in July 2022 and 3,371 cfs in August 2022 (DWR). Flows in the Sacramento River at Freeport averaged 21,369 cfs in July 2024 and 21,935 cfs in August 2024; 14,060 cfs in July 2023 and 17,288 cfs in August 2023; and 11,985 cfs in July 2022 and 9,803 cfs in August 2022 (DWR).

When exporting water from the Delta, DWR must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, and regulations relating to Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other legal users, including legal in-basin demands. These requirements include applicable SWRCB orders, Corps permits, Biological Opinions and other regulatory constraints including any relevant judicial orders in effect at the time of the operation. They have established water quality and flow requirements and limits on the rate of export of water that can be pumped by the state and federal pumping plants. The proposed project does not increase Delta export rates beyond permitted limits.

In determining the availability of excess capacity within the SWP or CVP, Project operators analyze annual hydrology, project operations, contractor requests, and regulatory and operational restrictions among other things to determine whether transfers can be conveyed without affecting the Projects.

Project operations are governed by the requirements contained in Water Right Decision 1641 (D1641). D1641 contains flow and water quality objectives. D1641 also contains specific provisions relating to the use of Project facilities for conveyance of transfer water including water level and water quality response plans.

Another operational consideration important for transfers moving through the Delta is carriage water. Carriage water is the additional flow necessary to move transfer water across the Delta for export so as not to exceed the objectives contained in D1641. DWR and Reclamation estimate carriage water based on

annual hydrology, Project operations and regulatory restrictions among other operational considerations. Carriage water losses are applied to the quantity of transfer water made available above the Delta. This reduces the quantity of water that is actually exported from the Delta. The amount of carriage water required to export transfer water can vary significantly from year to year and can exceed 20 percent in dryer years. In 2012 and 2013, carriage water losses for cross Delta transfers were 30 percent. Carriage water requirements are reflected in the proposed project and would help avoid water quality concerns in the Delta.

The proposed project would not violate water quality standards or waste discharge requirements.

Secondly, changes in groundwater levels and the potential change in groundwater flow directions could cause a change in groundwater quality through a number of mechanisms. One mechanism is the potential mobilization of areas of poorer quality water, drawn down from shallow zones, or drawn up into previously unaffected areas. Changes in groundwater gradients and flow directions could also cause (or speed) the lateral migration of poorer quality water.

Groundwater quality in the Seller Assessment Area subbasin is generally good and sufficient for irrigation, however elevated levels of Arsenic is concern in the area (Sutter Subbasin GSP 2022). Groundwater extraction under the proposed project would be limited to withdrawals during the irrigation season of the 2025 contract year. Groundwater extraction under the proposed project would be limited to short-term withdrawals during the irrigation season and extraction near areas of reduced groundwater quality would not be expected to result in a permanent change to groundwater quality conditions. Consequently, effects from the migration of reduced groundwater quality would be less than significant.

- b) **Less than Significant with Mitigation Incorporation.** The proposed project would extract up to 5,750 AF of groundwater from two BWD production wells in Sutter County (East Butte subbasin). These wells have approximate production capacities of 3,500 GPM and 4,000 GPM respectively. Groundwater pumped in lieu of diverting surface water could affect groundwater hydrology. The potential effects could be short term declines in local groundwater levels, interaction with surface water, and land subsidence.

Increased groundwater substitution pumping could result in temporary declines of groundwater levels. Groundwater substitution pumping could occur from April through October and the pumped groundwater would be used for crop irrigation within the seller's district. Declining groundwater levels resulting from increased groundwater substitution pumping could cause: (1) increased groundwater pumping costs due to increased pumping depth; (2) decreased yield from groundwater wells due to reduction in the saturated thickness of the aquifer; (3) decrease of the groundwater table to a level below the vegetative root zone, which could result in environmental effects; and (4) third-party impacts to neighboring wells.

BWD last participated in groundwater substitution transfers in 2021 and 2022, and groundwater substitution and land idling transfers in 2014 and 2018. Pre-pumping groundwater levels returned promptly after cessation of the transfer (GEI Consultants 2021, GEI Consultants 2022). BWD has operated these wells in the past at similar production rates and has observed no substantial impacts on groundwater levels or groundwater supplies. Based on the results of the monitoring data collected as part of the previous transfers, groundwater substitution transfers are unlikely to have significant effects on groundwater levels. Because of the uncertainty of how groundwater levels could change, especially during a very dry year, the impacts could be potentially significant.

Groundwater substitution transfers could result in temporary groundwater declines in excess of seasonal variation and these effects on non-transferring wells could be significant. To reduce these significant effects to less than significant, the Mitigation Measure GW-1 (below) specifies that transferring agencies establish monitoring and mitigation programs for groundwater substitution transfers. The requirements of GW-1 would require monitoring of groundwater levels within the local pumping area and if effects were reported or occurred, BWD would compensate for effects or reduce pumping until the groundwater basin recharges as specified in GW-1. Mitigation Measure GW-1 would reduce the impacts to less than significant.

Groundwater/Surface Water Interaction

The implementation of groundwater substitution pumping can lower the groundwater table and may change the relative difference between the groundwater and surface water levels. This change could reduce the

amount of surface water, as compared to pre-pumping conditions, due to two mechanisms. The mechanisms are:

- Induced leakage. Lowering the groundwater table causes a condition where the groundwater table is lower than the surface water level. This condition causes leakage out of a surface water body and could also increase percolation rates on irrigated lands.
- Interception of groundwater. A pumping well used for groundwater substitution pumping can intercept groundwater that would have discharged to the surface water absent the pumping.

Because these mechanisms may result in a depletion of streamflow, the volume of water actually transferred is not the same as the volume of groundwater pumped through a substitution action. The amount of water that can justifiably be considered to be transferred is the volume of substitution pumping less the amount of induced leakage and the amount of intercepted groundwater flow. The proposed project includes measures that would reduce the amount of water that the buyers receive by an estimated 13 percent depletion factor to prevent any adverse impacts associated with groundwater/surface water interaction.. This would avoid water supply concerns associated with potential stream depletion as a result of the proposed project. Additionally, the potential effects to fish and riparian vegetation from decreased streamflows are assessed in the Biological Resources section (and found to be minor).

Land Subsidence

Excessive groundwater extraction from unconfined and confined aquifers could lower groundwater levels and decrease pore-water pressure in the aquifer. The reduction in pore-water pressure could result in a loss of structural support within clay and silt beds in the aquifer. The loss of structural support could cause the compression of clay and silt beds resulting in a lowering of the ground surface elevation (land subsidence). The compression of fine-grained deposits, such as clay and silt, is largely permanent. Infrastructure damage and alteration of drainage patterns are possible consequences of land subsidence.

East Butte Groundwater subbasin has a low to medium potential for subsidence. The potential for subsidence as a result of the proposed project is small if the groundwater substitution pumping is small compared to overall pumping in a region. While the potential for subsidence is small, BWD will implement the Monitoring Program and Mitigation Plan described below under Mitigation Measure GW-1, which includes subsidence monitoring. The subsidence monitoring will measure changes in the ground surface elevation, whether subsidence is short-term or long-term. The monitoring and mitigation actions would verify that this impact would be less than significant.

Mitigation Measure GW-1: Monitoring Program and Mitigation Plan

The objective of Mitigation Measure GW-1 is to avoid significant adverse environmental effects and ensure prompt corrective action in the event unanticipated effects occur. The measure accomplishes this by monitoring groundwater and/or surface water levels during transfers to avoid potential effects. The objectives of this process are to: (1) minimize potential effects to other legal users of water; (2) provide a process for review and response to reported effects to non-transferring parties; (3) assure that a local mitigation strategy is in place prior to the groundwater transfer; and (4) mitigate significant adverse environmental effects. BWD will confirm that the proposed groundwater pumping will be compatible with state and local regulations, Groundwater Management Plans and GSPs under SGMA.

Well Review Process. BWD has used two production wells that lie within the Sutter County portion of their district boundary for previous groundwater substitution transfers. BWD will continue to use the same two wells for groundwater substitution transfers in 2025. BWD will prepare a report on its groundwater substitution transfers as detailed in the most current version of the *DRAFT Technical Information for Preparing Water Transfer Proposals* and submit to DWR for review before the transfer period.

Monitoring Program. BWD will be required to complete and implement a monitoring program that must, at a minimum, include the following components:

- **Monitoring Well Network.** The monitoring program shall incorporate a sufficient number of monitoring wells, as determined by the sellers in relation to local conditions, to accurately characterize groundwater levels and response in the area before, during, and after transfer pumping takes place. Depending on local conditions, additional groundwater level monitoring may be required near ecological resource areas.
- **Groundwater Pumping Measurements.** All wells pumping to replace surface water designated for transfer shall be configured with a permanent instantaneous and totalizing flow meter capable of accurately measuring well discharge rates and volumes. Flow meter readings will be recorded just prior to initiation of pumping and at designated times, but no less than monthly and as close as practical to the last day of the month, throughout the duration of the transfer.
- **Groundwater Levels.** BWD will collect measurements of groundwater levels in both participating transfer wells and monitoring wells. Groundwater level monitoring will include measurements before, during and after transfer-related pumping. BWD will measure groundwater levels as follows:
 - Prior to transfer: Groundwater levels will be measured monthly from March in the year of the proposed transfer-related pumping until the start of the transfer (where possible).
 - Start of transfer: Groundwater levels will be measured on the same day that the transfer-related pumping begins, prior to the pump being turned on.
 - During transfer-related pumping: Groundwater levels will be measured weekly throughout the transfer-related pumping period, unless site specific information indicates a different interval should be used.
 - Post-transfer pumping: Groundwater levels will be measured weekly for one month after the end of transfer-related pumping, after which groundwater levels will be measured monthly through March of the year following the transfer.

BWD therefore will monitor effects to groundwater levels that may result from the proposed transfer and avoid significant impacts. The GSP for the Sutter Subbasin contemplates BWD's groundwater substitution water transfers and has been approved by DWR. BWD will initiate the mitigation plan if groundwater levels fall below historic low groundwater levels. As part of a seller's transfer proposal, BWD will need to identify appropriate monitoring wells and the specific groundwater trigger for each well (established through the historic low groundwater level for that well).

Additionally, BWD will coordinate closely with potentially impacted third parties to collect and monitor groundwater data. If a third party expects that it may be impacted by a proposed transfer, that party should contact BWD with its concern. The burden of collecting groundwater data will not be the responsibility of the third party. If warranted, groundwater level monitoring to address the third-party's concern may be incorporated in the monitoring and mitigation plans required by Mitigation Measure GW-1.

- **Groundwater Quality.** BWD shall measure specific conductance in samples from each participating production well. Samples shall be collected when the seller first initiates pumping, monthly during the transfer period, and at the termination of transfer pumping.
- **Land Subsidence.** Subsidence monitoring will be required if groundwater levels could decline below historic low levels during the proposed water transfer. Before a transfer, BWD will examine local groundwater conditions and groundwater level changes based on past pumping events or groundwater substitution transfers. This existing information will be the basis to estimate if groundwater levels are likely to decline below historic low levels, which would trigger land surface elevation measurements (as described below).

If the measured groundwater level falls below the historic low level, the seller must confirm the measurement within seven days. If the water level has risen above the historic low level, the seller may continue transfer pumping. If the measured groundwater level remains below the historic low level, the seller will stop transfer-related pumping immediately or begin land surface elevation measurements in strategic locations within and/or near the transfer-related pumping area. Measurements may include (1) extensometer monitoring, (2) continuous GPS monitoring, or (3) extensive land-elevation benchmark surveys conducted by a licensed surveyor. This data could be collected by the seller or from other sources (such as public extensometer data). Measurements must be completed on a monthly basis during the transfer.

If the land surface elevation survey indicates an elevation decrease between 0.1 foot and 0.2 foot from the initial measurement, the seller could have significant impacts and would need to start the process identified below in the Mitigation Plan. The seller will also work with DWR to assess the accuracy of the survey measurements based on current limitations of technology, professional engineering/surveying judgment, and any other data available in or near the transferring area.

The threshold of 0.1 foot was chosen as this value is typical of the elastic (i.e., recoverable) portion of subsidence; the threshold of 0.2 foot was selected considering limitations of current land survey technology.

- **Coordination Plan.** The monitoring program will include a plan to coordinate the collection and organization of monitoring data. This plan will describe how input from third parties will be incorporated into the monitoring program, and will include a plan for communication with DWR as well as other decision makers and third parties.
- **Evaluation and Reporting.** The proposed monitoring program will describe the method of reporting monitoring data. At a minimum, sellers will provide data summary tables to DWR, both during and after transfer-related groundwater pumping. Post-program reporting will continue through March of the year following the transfer. Sellers will provide a final summary report to DWR evaluating the effects of the water transfer. The final report will identify transfer-related effects on groundwater and surface water (both during and after pumping), and the extent and significance, if any, of effects on local groundwater users. It shall include groundwater elevation contour maps for the area in which transfer operations are located, showing pre-transfer groundwater elevations, groundwater elevations at the end of the transfer, and recovered groundwater elevations in March of the year following the transfer. The summary report shall also identify the extent and significance, if any, of transfer-related effects to ecological resources such as fish, wildlife, and vegetation resources.

Mitigation Plan

The following mitigation plan must be completed and implemented to avoid potentially significant groundwater impacts and ensure prompt corrective action in the event unanticipated effects occur. Mitigation actions could include:

- Curtailment of pumping until natural recharge corrects the issue.
- Lowering of pumping bowls in non-transferring wells affected by transfer pumping.
- Reimbursement for significant increases in pumping costs due to the additional groundwater pumping to support the transfer.
- Curtailment of pumping until water levels rise above historic lows if non-reversible subsidence is detected (based on local data to identify elastic versus inelastic subsidence).
- Reimbursement for modifications to infrastructure that may be affected by non-reversible subsidence.
- Other appropriate actions based on local conditions, as determined by, as appropriate, by DWR or Reclamation.

As summarized above, the purpose of Mitigation Measure GW-1 is to monitor groundwater levels during transfers to avoid potentially significant adverse effects. The mitigation plan will describe how to avoid significant effects and address any significant effects that occur despite the monitoring efforts. The objectives of this process are to: (1) minimize potential effects to other legal users of water; (2) provide a process for review and response to reported effects; and (3) assure that a local mitigation strategy is in place prior to the groundwater transfer. Accordingly, to ensure that mitigation plans will be feasible, effective, and tailored to local conditions, the plan must include the following elements:

- A procedure for the seller to receive reports of purported environmental or effects to non-transferring parties;
- A procedure for investigating any reported effect;
- Development of mitigation options, in cooperation with the affected parties, for legitimate significant effects; and
- Assurances that adequate financial resources are available to cover reasonably anticipated mitigation needs.

Mitigation to avoid potentially significant subsidence impacts and ensure prompt corrective action in the event that unanticipated effects occur is described by the following stages.

Stage 1: Groundwater Levels

Irreversible subsidence would not occur if groundwater levels stay above historic low levels for the entire transfer season. As groundwater is pumped from an aquifer, the pore water pressure in the aquifer is reduced. This reduction in pore water pressure increases the effective stress on the structure of the aquifer itself. This increase in effective stress can cause the aquifer structure to deform, or compress, resulting in the subsidence of the ground surface elevation. Subsidence can be irreversible if the reduced effective stress is lower than the historically low effective stress. Typically, this would be the result of groundwater levels reaching levels lower than the historical low level.

Before a transfer, BWD will examine local groundwater conditions and groundwater level changes based on past pumping events or groundwater substitution transfers. This existing information will be the basis to estimate if groundwater levels are likely to decline below historic low levels as a result of the proposed transfer. If the pre-transfer assessment indicates that groundwater levels will stay above historic low levels, and this finding is confirmed by monitoring during the transfer-related pumping period, then no additional actions for subsidence monitoring or mitigation are necessary. BWD would need to proceed to stage 2 for land surface elevation monitoring if the pre-transfer estimates indicate that groundwater levels are anticipated to decline below historic low levels. If monitoring during the transfer-related pumping period (confirmed by two measurements within seven days) indicates that groundwater levels have fallen below historic low levels, BWD will immediately stop pumping or proceed to stage 2.

Stage 2: Ground Surface Elevations

Stage 2 includes monthly ground surface monitoring during transfer-related pumping if pumping could cause groundwater levels to fall below historic low levels, as described above in the Monitoring Plan. If ground surface elevations decrease between 0.1 and 0.2 foot, BWD will evaluate the accuracy of the information based on the current limitations of technology, professional engineering/surveying judgment, and other local data. If the elevations decline more than 0.2 foot, this change could indicate inelastic subsidence and BWD would cease transfer pumping. BWD would continue monitoring as discussed below even after discontinuing transfer pumping.

Stage 3: Continued Monitoring

BWD will continue to monitor for subsidence while groundwater levels remain below historic low levels. If transfer-related pumping has ceased but groundwater levels remain below historic lows, subsidence

monitoring will need to continue until the spring following the transfer. The results of subsidence monitoring will be factored into monitoring and mitigation plans for future transfers.

- c-d) **No Impact.** The proposed project would not substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation on- or off-site, or increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. The water transferred would be maintained within existing conveyance and storage systems of DWR. No drainage courses would receive transferred water from the proposed project. In addition, there are no construction activities associated with the proposed project. As such, no impacts relating to water drainage patterns would occur with project implementation.
- e) **No Impact.** The proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems. Also refer to previous responses, (Items c-d). Hence, no impacts relating to storm water drainage systems or additional sources of polluted runoff would occur with project implementation.
- f) **No Impact.** The proposed project would not substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would impede or redirect flood flows. All facilities which would be utilized are existing facilities constructed according to standard engineering design practices to limit the potential for exposure of people or property to water-related hazards, such as flooding. Therefore, no impact relating to flooding would occur with the project implementation.
- g) **No Impact.** The proposed project would not be subject to tsunami or seiche wave inundation because the project area is not situated near a large enough body of water. Also, the associated facilities are not subject to mudslides. As such, no impacts would result from project implementation with respect to tsunamis or seiches.
- h) **No Impact.** The proposed water transfer program will not conflict with or obstruct implementation of a water quality control plan or SGMA. Under the Sustainable Groundwater Management Act (SGMA), Groundwater Sustainability Agencies (GSAs) develop, adopt, and implement a Groundwater Sustainability Plan (GSP) for the subbasin. Under the GSP, GSAs monitor groundwater conditions and develop criteria to achieve sustainable groundwater management. Groundwater substitution transfers therefore must be consistent with the GSP because groundwater being pumped in lieu of using surface water affects groundwater supplies. BWD, as a GSA, will comply with its GSP in executing its groundwater substitution transfer during the 2025 contract year.

As such, no impact to any water quality control plan or sustainable groundwater management plan would occur with project implementation.

XI. LAND USE AND PLANNING – Would the project:

Issues and Determination:	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning				

ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

☐ ☐ ☐ ☒

- c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?

☐ ☐ ☐ ☒

Discussion:

- a-c) **No Impact.** The proposed project would not displace or divide an established community, as no new construction activities would occur with project implementation. Only existing facilities and equipment would be employed. Also, no zoning or land use changes would be required for the participating farmer to enter into an agreement to idle a portion of his or her farmlands. Idling of agricultural land is a typical agricultural practice. Refer to Item IV.f (Biological Resources) with regard to the question on conflicts with applicable habitat conservation plans. Overall, there would be no impacts to land use or planning with project implementation.

XII. MINERAL RESOURCES – Would the proposed Action:

Issues and Determination:	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a, b) **No Impact.** As the area is currently used for agricultural purposes only, the one-year idling of some additional farmlands for a one-year period would not result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State. No impacts to mineral resources would occur with the proposed water transfer.

XIII. NOISE – Would the proposed Action result in:

Issues and Determination:	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) For a project located within-the vicinity of a private airstrip or-an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

- a-c) **No Impact.** The proposed project does not involve the development or enhancement of any new noise emitting devices. Groundwater pumping would utilize existing electric pumps only. In addition, there would be no construction activities associated with the proposed project. Only existing facilities and equipment would be utilized with the proposed water transfer. As such, no noise impacts would result with project implementation.

XIV. POPULATION AND HOUSING – Would the proposed Action:

Issues and Determination:

- | | <u>Potentially
Significant
Impact</u> | <u>Less Than
Significant
With
Mitigation
Incorporation</u> | <u>Less Than
Significant
Impact</u> | <u>No
Impact</u> |
|---|---|--|---|-------------------------------------|
| a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

- a-b) **No Impact.** The proposed project would involve the movement of water in amounts that would not exceed existing CVP or SWP contractors' contractual amounts specified in each long-term water supply contract for water transported through the California Aqueduct or Delta Mendota Canal nor allow for a total amount of water to be transported that would exceed levels previously delivered in non-shortage years. Therefore, there would be no net increase in water supply. No housing would be constructed, demolished, or replaced as a result of the proposed project, no displacement of people and no substantial population growth would result. Therefore, no impacts to housing or population distribution would occur as a result of the proposed water transfer.

XV. PUBLIC SERVICES – Would the proposed Action:

Issues and Determination:

- | | <u>Potentially
Significant
Impact</u> | <u>Less Than
Significant
With
Mitigation
Incorporation</u> | <u>Less Than
Significant
Impact</u> | <u>No
Impact</u> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **No Impact.** The proposed project neither creates any new demand for public services nor alters existing public facilities. The proposed water transfer would occur within existing water conveyance facilities. Hence, no impacts to public services or facilities would occur with project implementation.

XVI. RECREATION – Would the proposed action:

Issues and Determination:	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a-b) **No Impact.** The proposed project would neither create nor alter demand for recreational services. The proposed project would involve the movement of water in amounts that would not exceed existing entitlements for water transported through the California Aqueduct or Delta Mendota Canal nor allow for a total amount of water to be transported that would exceed levels previously delivered in non-shortage years. As such, there would be no net increase in recreational opportunities and no impacts to recreational facilities or activities would occur with project implementation.

XVII. TRANSPORTATION / TRAFFIC – Would the proposed action:

<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation</i>	<i>Less Than Significant Impact</i>	<i>No</i>
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Issues and Determination:

	<u>Impact</u>	<u>Incorporation</u>	<u>Impact</u>	<u>Impact</u>
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a-g) **No Impact.** The proposed project does not create any new demand for any mode of transportation services as it would involve existing facilities and to forebear water for water supply purposes. Also, there are no construction activities associated with the proposed project (such as movement of trucks). Therefore, no transportation impacts would occur with project implementation.

XVIII. TRIBAL CULTURAL RESOURCES – Would the proposed action:

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
Issues and Determination:				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape,				

sacred place, or object with cultural value to a California Native American tribe, and that is:

- | | | | | | |
|-----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| i) | Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) | A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

- a) **No Impact.** The proposed project does not involve any land alteration and thus no substantial adverse change to a site, feature, place, or cultural landscape with cultural value to a tribe, or to a unique archaeological resource are possible within the proposed project's scope. Therefore, no impact to tribal cultural resources would occur with project implementation.

XIX. UTILITIES AND SERVICE SYSTEMS – Would the proposed action:

Issues and Determination:	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm drainage, electric power, natural gas, telecommunication facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Generate solid waste in excess of State or local standards, or in excess of the capacity of local				

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|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| | infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

- a-f) No Impact.** The proposed project would not place additional demands on nor affect public utilities, particularly wastewater treatment facilities, water facilities, and storm drain systems in the area. No new or expanded water entitlements would be necessary. That is, the proposed project would involve the movement of pre-existing entitlements of water. No solid waste disposal or disposal facilities would be needed for the proposed project. Therefore no impacts to existing utilities and conveyance systems would occur with project implementation.

XX. MANDATORY FINDINGS OF SIGNIFICANCE – Would the proposed action:

Issues and Determination:	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) Less Than Significant with Mitigation Incorporation.** Water transfers would not have substantial incremental effects to habitat or species relative to the conditions that would occur in response to the dry hydrologic conditions. Mitigation Measures BIO-1 and GW-1 would reduce potential special status species impacts to less than significant. Water transfers would not degrade the quality of the environment or eliminate examples of California history or prehistory.

- b) **Less Than Significant with Mitigation Incorporation.** This cumulative impacts analysis identifies past, present, and reasonably foreseeable future projects with the potential to contribute to cumulative effects, when combined with the proposed project. These impacts are not significant individually or cumulatively. The proposed project would occur through existing facilities with no new construction. As such, implementation of the proposed project would have no significant impacts. As discussed below, water transfers from the Sacramento Valley through the Delta for consumptive uses and environmental purposes South of the Delta have been occurring on a large scale for over a decade. Examples include:

DWR Water Purchase Program

The first large scale water transfer program in California was the 1991 Emergency Drought Water Bank (1991 DWB). The 1991 DWB was established in response to projected critical water supply shortages following 4 years of drought conditions. The 1991 DWB team purchased water from willing sellers in the Delta, Sacramento Valley and Feather River basin areas. Water was made available through crop idling, groundwater substitution, and reservoir storage release. The 1991 DWB team executed over 300 contracts with water agencies and individuals to purchase water for critical statewide needs. Water from the 1991 DWB was allocated to 12 municipal and agricultural water users. Drought water banks were implemented again in 1992 and 1994, acquiring water primarily from groundwater substitution.

DWR implemented Dry Year Purchase Programs in 2001 and 2002 in response to dry conditions and reduced SWP and CVP allocations. In 2001 DWR purchased water from willing sellers in Northern California from a combination of crop idling, groundwater substitution and reservoir storage release, for delivery to eight water agencies throughout the State to help offset water shortages. In 2002, DWR acquired water made available through groundwater substitution from Yuba County Water Agency (YCWA) and its member units and provided it to four SWP contractors.

DWR implemented a drought water bank in 2009 after a series of three dry years, acquiring about 76,600 AF of transfer water from a combination of crop idling, groundwater substitution and reservoir storage release. An additional 200,000 AF of cross-Delta transfers were executed independently by water agencies and exported through SWP and CVP facilities. Since 2009, DWR has facilitated water transfers by conveying transfer water through SWP facilities; however, it has not acted as a purchaser or broker.

Federal Water Acquisition Programs

The Central Valley Project Improvement Act of 1992 (CVPIA) amended previous authorizations of the CVP to include fish and wildlife protection, restoration, and enhancement as project purposes having equal priority with agriculture, municipal and industrial, and power purposes. A major feature of CVPIA is that it requires acquisition of water for protecting, restoring, and enhancing fish and wildlife populations. To meet water acquisition needs under CVPIA, the U.S. Department of the Interior (Interior) has developed a Water Acquisition Program (WAP), a joint effort by Reclamation and the FWS. The major purposes of the WAP are acquisition of water to meet optimal refuge demands and support instream flows.

Environmental Water Account

The Environmental Water Account (EWA) was established in 2000. The purpose of the EWA program was to provide protection to at-risk native fish species of the Bay-Delta estuary by supporting environmentally beneficial changes in SWP and CVP operations. EWA funds were used to acquire alternative sources of water, called the "EWA assets," which the EWA agencies used to replace the SWP and CVP water that was not exported from the Delta because of the voluntary fish actions. The EWA program ended in December 2007.

Yuba River Accord Transfers

In 1989, the State Water Resources Control Board (SWRCB) received a complaint regarding fishery protection and water right issues on the Lower Yuba River. The SWRCB held hearings on the issues raised in this complaint and in 1999 issued a draft decision. At the request of YCWA and the California Department of Fish and Wildlife, subsequent hearings were postponed in order to provide the parties an opportunity to reach a proposed settlement regarding instream flows and further studies. The parties failed to reach agreement on a settlement and the SWRCB held additional hearings in the spring of 2000. A draft decision was issued in the fall of 2000 and was adopted as Decision 1644 on March 1, 2001.

Subsequent litigation led to withdrawal of Decision 1644 and issuance of Revised Decision 1644 (RD-1644) in July, 2003. These decisions established revised instream flow requirements for the Lower Yuba River and required actions to provide suitable water temperatures and habitat for Chinook salmon and steelhead and to reduce fish losses at water diversion facilities. After the issuance of RD-1644, the parties involved in the SWRCB proceedings expressed a desire to further negotiate the instream flow, flow fluctuation, and water temperature issues on the Lower Yuba River. The parties engaged in a collaborative, interest-based negotiation with numerous stakeholders, reaching a series of agreements now known as the Lower Yuba River Accord (Accord). These negotiations resulted in the agreements outlined below and the SWRCB approval of the flow schedules and water transfer aspects of the Accord on March 18, 2008, with Water Right Order 2008-0014. Several technical revisions to the Order were adopted as part of Water Right Order 2008-0025 on May 20, 2008.

Surface water releases are made available for transfer under the Accord based on the difference between a baseline release rate (the interim flow schedules defined in RD-1644 and in Water Right Order 2008-0014) and the Fisheries Agreement flow schedules. The baseline releases (interim flow schedule in RD-1644) are based on the Yuba River Index as defined in RD-1644. The flow schedules in the Fisheries Agreement are determined based on the North Yuba River Index independent from the Yuba River Index. (There are also some conditions when the YCWD-CDFW agreement or the current FERC license control the baseline flows.) As a result, there can be a wide range of possible transfer amounts under the various hydrologic conditions that can occur in the Yuba River watershed in any year.

Groundwater substitution water is made available by individual landowners within seven of the eight YCWA member units that are signatories to the Accord. YCWA reduces its surface diversions to those member units from the Yuba River and regulates storage in Bullards Bar Reservoir to accrue and release the groundwater substitution water on a schedule to allow the releases to be exported in the Delta.

Finally, in recent history, individual and groups SWP and CVP contractors have purchased water transfer supplies on an as-needed basis to supplement shortages to water supplies. BWD and other entities have occasionally participated in these prior water transfers.

There have been no known demonstrable adverse impacts resulting from these recent water transfers, which have complied with all applicable environmental regulations governing Delta operations. There have been no impacts in any one year when the various transfers are considered cumulatively; nor have there been any impacts when considering the various transfers cumulatively over the last decade. BWD's proposed transfer is one of several transfers in the Sacramento River Basin likely to occur in 2025. BWD has participated in past land idling transfers in 2018, 2014, 2012, 2010 and 2009. It has participated in groundwater substitution water transfers utilizing the same two wells in 2022, 2021, 2018, 2014, 2013, 2010, and 2009. No adverse impacts were claimed or noted as part of BWD's past transfers. As such, and recognizing that no individual or cumulatively significant impacts have been noted for past transfers at or exceeding this order of magnitude, no significant impacts (individually or cumulatively) are expected as a result of the proposed project. Delta impacts are likewise not expected to be significant.

Biological Resources

The proposed project would result in a slight increase in Sacramento River and Feather River flows. Other cumulative transfers would result in increased flows downstream of the sellers' point of diversion to the Delta. Detailed analysis in the Long-Term Water Transfers EIS/EIR concluded that cumulative change in flow due to transfers would not reduce the suitability of habitat conditions during adult immigration by Chinook, steelhead, and green sturgeon (Reclamation and SLDWMA 2019). This magnitude of cumulative flow change would also not appreciably reduce spawning habitat availability and incubation, increase redd dewatering or juvenile stranding, or reduce the suitability of habitat conditions during juvenile rearing for these sensitive fish species because the increase in flow is so small compared to baseline flows. Other special-status fish species, including hardhead and Sacramento splittail would also not be affected by small changes in river flow.

The proposed project includes up to 4,928 acres of rice idling in Butte and Sutter counties. Transfers under the cumulative condition would result in the idling of more rice fields than those included in the proposed project. As described under IV. Biological Resources, rice fields provide habitat for GGS, western pond turtle, and migratory birds. For the GGS and western pond turtle, rice idling could result in reduced forage and cover habitat, hindered movement, and increased predation risk. For migratory birds, rice idling could reduce nesting, forage, and rearing habitat. Additional rice idled under the cumulative condition could increase these effects relative to the proposed project. Mitigation Measure BIO-1 includes best management practices to reduce potential effects to special status species, including GGS and western pond turtle, and migratory birds. Other water transfers facilitated by Reclamation and DWR using Federal and State facilities would be required to have similar measures in place to protect special status species, as specified in *DRAFT Technical Information for Preparing Water Transfer Proposals*. As a result, cumulative impacts to these species would not be expected to be significant. Further, Mitigation Measure BIO-1 would reduce potential effects of the proposed project on special status species under cumulative conditions, such that the proposed project's contribution to any such impacts would be minimal.

Groundwater substitution transfers under the cumulative condition would also result in streamflow depletion and potentially affect flows for fish and natural communities. The additional groundwater substitution transfers under cumulative conditions are generally in different areas of the Sacramento Valley than those included in the proposed project and would not substantially increase streamflow depletion in any one area. As a result, any losses in stream flows would be minor and effects to fisheries or natural communities would be less than significant under the cumulative condition.

Groundwater Resources

The reduction in recharge due to the decrease in precipitation and runoff in the past years in addition to the increase in groundwater substitution transfers would lower groundwater levels. As discussed in the Hydrology and Water Quality section, groundwater pumping under proposed project would not cause significant adverse effects to groundwater levels with the implementation of Mitigation Measure GW-1. The additional groundwater substitution transfers in the cumulative condition are in different areas of the Sacramento Valley; therefore, this addition to the cumulative condition is not likely to cause a significant cumulative impact.

The seller will be required to conduct well review, monitoring, and mitigation to reduce effects to third party groundwater users for approval of transfers. Only wells that meet the requirements outlined in the *DRAFT Technical Information for Preparing Water Transfer Proposals* will be allowed to participate in a transfer. Monitoring and mitigation programs would reduce cumulative groundwater effects. Coordination of groundwater programs in the Sacramento Valley would also minimize and avoid the potential for cumulative effects to groundwater resources. DWR is involved in multiple groundwater programs in the Sacramento Valley, including monitoring programs. BWD will be submitting transfer reports to DWR that will be used to track program activities, collect and combine data, and assess potential groundwater effects. Because of the required groundwater monitoring and mitigation for transfer approval and agency coordination, the proposed project would not result in a cumulatively considerable contribution to effects on groundwater.

- c) **No Impact.** The MND assesses the potential impacts of the proposed project. There would be no construction activities associated with the proposed water transfer. Typical farming practices with the idling of land would comply with applicable health and safety requirements. Therefore, the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly.

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