State of California
State Water Resources Control Board

DIVISION OF WATER RIGHTS
P.O. Box 2000, Sacramento, CA 95812-2000
Info: (916) 341-5300, FAX: (916) 341-5400, Web: http://www.waterrights.ca.gov

PETITION FOR TEMPORARY TRANSFER OF WATER/WATER RIGHTS

(Water Code 1725)

☑ Point of Diversion ☐ Point of Rediversion ☑ Place of Use ☑ Purpose of Use

Application No(s). 4901 Permit No. 2514 License No. 9995

Statement or Other No._____

Present Holder and User of Water Right

Person or Company name		Contact person	Telephone No.
Sacramento River Ranch, LLC and Sacramento River Ranch II, LLC		Todd Johnson	(719) 633-1505
Address	**City**	**State**	**Zip Code**
619 N. Cascade, Suite 200	Colorado Springs	CO	80903

E-MAIL (For noticing purposes): todd.johnson@rlholdings.com

Co-petitioner

Person or Company name		Contact person	Telephone No.
Address	**City**	**State**	**Zip Code**

E-MAIL (For noticing purposes)

Proposed New User

Person or Company name		Contact person	Telephone No.
Department of Water Rights' Drought Water Bank		Teresa Geimer	(916) 651-7194
Address	**City**	**State**	**Zip Code**
P.O. Box 942836	Sacramento	CA	94236

E-MAIL (For noticing purposes): tegeimer@water.ca.gov

I (We) hereby petition the State Water Resources Control Board (State Water Board) under the provisions of Water Code (WC) section 1725 et seq. and in conformance with the specific requirements of California Code of Regulations (CCR) section 794 for temporary change(s) to the water right application(s) noted above for the purpose of transferring water. The changes are **shown on the accompanying map and described as follows**:

Amount of Water to be Transferred up to ~~2,824~~ 2,752.59 per email dated 4/23/09 PDF Acre-feet (AF). If the basis of right is direct diversion, the average rate of diversion for the maximum 30 day period of use is 22 cubic feet per second (cfs).

Period of Transfer/Exchange (Not to exceed one year)

Point of Diversion or Rediversion (Give coordinate distances from section corner or other ties as allowed by CCR section 715, and the 40-acre subdivision in which the present & proposed points lie.

Present See Attachment at III.

Proposed _____

Rec'd $100 4-16-09 AMM

Place of Use

Present See Attachment at IV.

Proposed

Purpose of Use

Present See Attachment at V.

Proposed

	Season of Use	*Direct Use (cfs)*	*Storage (ac-ft)*
Present	See Attachment at VI.		
Proposed			

The proposed transfer/exchange water is presently used or stored within the county/counties of:
Yolo

The proposed transfer/exchange water will be placed to beneficial use within the following county/counties:
Various (See Attachment at IV).

1a. Would the transfer/exchange water have been consumptively used or stored in the absence of the proposed temporary change (See WC 1725)? Yes (yes/no)

1b. Provide an analysis which provides documentation that the amount of water to be transferred/exchanged would have been consumptively used or stored in the absence of the proposed temporary change.

2a. If the point of diversion/rediversion is being changed, are there any person(s) taking water from the stream between the present point of diversion/rediversion and the proposed point? Yes (yes/no)

2b. Are there any persons taking water from the stream between the present point of diversion or return flow and the proposed point of diversion or return flow? Yes (yes/no)

2c. If the answer to 2a. or 2b. is yes, provide the name and address. Also provide the name and address of other persons known to you who may be affected by the proposed change.
See Attachment at X.

3a. Provide an analysis of any changes in streamflow, water quality, timing of diversion or use, return flows, or effects on legal users resulting from the proposed transfer/exchange. See Attachment at XI.

3b. State reasons you believe the proposed temporary change will not injure any legal user of the water, see Water Code Section 1727 (b)(1). See Attachment at XI.

4. Consult with staff of the applicable Regional Water Quality Control Board concerning the proposed temporary change. State the name and phone number of person(s) contacted. Summarize their opinion concerning compliance with CCR 794(b) and any Regional Board requirements. See Attachment at XII.

5a. Consult with the California Department of Fish and Game pursuant to CCR 794(b) concerning the proposed temporary change. State the name and phone number of the person(s) contacted and their opinion concerning the potential effect(s) of the proposed temporary change on fish, wildlife, or other instream beneficial uses, and state any measures recommended for mitigation. See Attachment at XII.

5b. Does the proposed use serve to preserve or enhance wetlands habitat, fish and wildlife resources, or recreation in or on the water (See WC 1707) ? No
(yes/no)

5c. Provide an analysis of potential effect(s) on fish, wildlife, or other instream beneficial uses which may arise from the proposed change. See Attachment at XIII.

5d. State reasons you believe the proposed temporary change will not unreasonably affect fish, wildlife, or other instream beneficial uses, see Water Code Section 1727 (b)(2). See Attachment at XIII.

6a. Does any agency involved in the proposed transfer/exchange rely upon section 382 of the Water Code to allow the delivery of water outside of the agency's service area? No.
(yes/no)?

6b. If yes, provide an analysis of the effect of the proposed transfer/ exchange on the overall economy of the area from which the water is being transferred.

A TRANSFER/EXCHANGE UNDER WATER CODE SECTION 1725 INVOLVES ONLY THE AMOUNT OF WATER WHICH WOULD HAVE BEEN CONSUMPTIVELY USED OR STORED IN THE ABSENCE OF THE PROPOSED TEMPORARY CHANGE. A CHANGE WILL BE EFFECTIVE FOR A PERIOD OF ONE YEAR OR LESS, BEGINNING ON THE APPROVAL OF THIS PETITION OR ON SUCH DATE OTHERWISE SPECIFIED BY THE SWRCB ORDER. FOLLOWING EXPIRATION OF THIS TEMPORARY CHANGE, ALL RIGHTS AUTOMATICALLY REVERT TO THE PRESENT HOLDER BY OPERATION OF LAW.

I (we) declare under penalty of perjury that the above is true and correct to the best of my (our) knowledge and belief.

Dated: 4/15/09 at _____, California

James W Geisy (719) 633-1505
Signature(s) Telephone No.

NOTE: This petition shall be accompanied by all information and fees required by this form and W.C. Section 1725 et. seq, before the SWRCB will consider acceptance of the petition requesting a temporary change to facilitate a transfer/exchange.

Proof of Service: Compliance with W.C. section 1726(c) shall be met by the filing of copies of the proof of service to the Department of Fish and Game and to the board of supervisors of the counties where the water is currently used and the counties to which water is proposed to be transferred.

Fees: The following fees must accompany the petition before the petition will be accepted:

1. A minimum filing fee of $100, for each application listed in the petition, shall be submitted with the petition (Water Code section 1547). The fee is made payable to the State Water Resources Control Board.

a) Water Code section 1547.1 requires an additionally fee of 25% of the amount computed by using the fee schedule in Article 1 (commencing with Water Code section 1525) for use of water outside of the basin from which the water transfer originates. The fee is based on that portion of water transferred under the existing direct diversion or storage right(s) for each application identified in the petition. For direct diversion rights, the rate is typically computed based on the average rate of diversion (cfs) for the maximum 30-day period of use (AF).

b) If the petitioner relies on Water Code section 382, the total filing fee shall be based on the amount necessary to cover the reasonable costs of the SWRCB to evaluate and process the petition (Water Code section 386). Please contact the Division if you would like an estimate of the potential cost.

2. An $850 environmental filing fee, made payable to the Department of Fish and Game, must accompany a petition for change (Public Resources Code 10005).

INFORMATION REGARDING FILING FEES FOR TEMPORARY TRANSFERS

INITIAL FILING FEE

Initial filing fee = $100 X (number of Applications)

IN BASIN WATER RIGHT TRANSFER FEE

No Additional Fee

OUT OF BASIN WATER RIGHT TRANSFER FEE

OUT OF BASIN TRANSFER FEE = 25% of the direct diversion and/or storage fee calculated below.

For direct diversion water rights: each cubic foot per second (cfs) or fractional cfs rounded up to the next whole cfs to be transferred shall be assessed the following fees:

from 0 to 100 cfs	_____cfs	@ $10.00 each
over 100 to 500 cfs	_____cfs	@ $12.00 each
over 500 to 2,000 cfs	_____cfs	@ $15.00 each
over 2,000 cfs	_____cfs	@ $20.00 each

Where the amount to be transferred is identified in acre-feet, the rate of diversion 'cfs' shall be computed based on the average rate of direct diversion for the maximum 30-day period of use in which water is either developed or transferred, which ever is greater.

Example: If the amount of the water right is 6 cfs, by direct diversion from May 1 through October 31: and, the amount to be transferred will be 1,500 acre-feet (af) for the year; and, the maximum amount of water delivered is 300 af during July;

The fee is based on : $\frac{300 \text{ af}}{30 \text{ days}} \times \frac{1}{1.98 \text{ af/cfs}} = 5.05$ cfs, which rounds up to 6 cfs

Out of Basin Direct Diversion Fee = 6 CFS X $100.00/cfs X (number of applications)

For storage water rights: each acre-foot (af) or fractional af, rounded up to the next whole af of storage to be transferred shall be assessed the following fees:

from 0 to 1,000 afa	_____afa	@ $0.10 each
over 1,000 to 5,000 afa	_____afa	@ $0.12 each
over 5,000 to 100,000 afa	_____afa	@ $0.15 each
over 100,000 afa	_____afa	@ $0.20 each

Example: If the amount of the water right is 100 acre-feet (af) of storage; and, the amount to be transferred will be 50 af of storage;

The fee is based on: 50 af

Out of Basin Storage Fee = 50 af X $0.10/af X (number of applications)

Attachment to Petition for Temporary Transfer of Water Rights
License 9995 (Application 4901)

I. Period of Transfer/Exchange

License 9995, a water right with a January 28, 1926 priority date, covers a portion of the property of Sacramento River Ranch, LLC and Sacramento River Ranch II, LLC (collectively, "River Ranch"). River Ranch owns an undivided 52.9% interest in the water right under License 9995. The source of surface water is the Sacramento River. In addition, a portion of the River Ranch is subject to a settlement contract between the River Ranch and the United States Bureau of Reclamation dated April 5, 2005 and known as Contract No. 14-06-200-2149A-R-1, which authorizes the diversion and use of 4,000 acre-feet per year from the Sacramento River. River Ranch owns an undivided 52.9% interest in the maximum annual diversion quantity of 22 cfs pursuant to License 9995.

122 per email dated 4/23/09 PDF

River Ranch intends to transfer up to ~~193~~ acre feet of water made available through voluntary fallowing of lands which, absent the transfer, would have been planted (crop idling) to milo or rice. Through crop idling on River Ranch property, this water will be made available during the period from July 1 to October 31, 2009.

River Ranch also intends to transfer up to 2,631 acre feet of water made available through groundwater substitution. This water will be made available during the period from July 1 to October 31, 2009.

The relative amounts of water made available for transfer from groundwater substitution have yet to be determined. However, DWR and the Bureau of Reclamation have approved ~~193~~ 122 acre feet to be made available through a crop idling transfer.

Any Order issued pursuant to this Petition should authorize the temporary change to be effective for up to one year.

II. Proposed New User

Department of Water Resources' (DWR) Drought Water Bank
P.O. Box 942836
Sacramento, CA 94236

III. Point of Diversion or Rediversion

Present:

The moveable points of diversion for the River Ranch's water right licenses are located on the Sacramento River between limits as follows: (a) Keller Pumping Plant, located at North 28°05'

East 2,230 feet from SW Corner of Section 27, T11N, R3E, MDB&M, being within NW1/4 of SW1/4 of said Section 27; (b) Hershey Pumping Plant, located at South 69°45' East 3,600 feet from NW Corner of Section 1, T10N, R3E, MDB&M, being within NW1/4 of NE1/4 of said Section 11 and (c) Knights Landing Outfall Gates, located at North 17°00' East 2,660 feet from SW Corner of Section 14, T11N, R2E, MDB&M, being within NW1/4 of SW1/4 of said Section 14.

Proposed:

All Central Valley Project ("CVP") and State Water Project ("SWP") Points of Diversion.

IV. Place of Use

Present:

River Ranch uses its portion of License 9995 on 1,893 acres within the License's gross place of use, that is located within the boundaries of T11N, R3E and T10N, R3E, MDB&M. Present place of use for River Ranch's water rights is shown on maps which are contained in the SWRCB files.

Proposed:

All CVP service areas (as shown on map 214-208-12581 on file with the SWRCB under Application 5626) and all SWP service areas (as shown on maps 1878-1, 2, 3, & 4 on file with the SWRCB under Application 5629).

V. Purpose of Use

Present:

Irrigation.

Proposed:

All purposes, including, without limitation, irrigation, domestic, power, municipal, industrial, salinity, and water quality control.

VI. Season of Use

Present:

April 1-October 31

Proposed:

There is no proposed change in the season of use. Surface water not applied to the fallowed land will no longer be diverted from the present points of diversion by River Ranch. The forborne

water will be conveyed to the Department of Water Rights' Drought Water bank from July 1 to October 31, 2009. Water from the proposed crop idling and groundwater substitution will be made available within the authorized season as shown above. This water may, at times when there is insufficient capacity at either the CVP or SWP Delta pumping plants, be exchanged for water being released by the United States Bureau of Reclamation (USBR) for instream demands.

River Ranch will coordinate with the various agencies to transfer the water at the most suitable time.

VII. Direct Use

Present:

River Ranch would directly divert up to 52.9% of 22 cfs for the maximum 30 day period of use, during the months of July through October, and consumptively use at least 2,834.31 acre-feet of water total, in 2009 to irrigate 1,893 acres within a gross area of 4,331 acres within T11N, R3E and T10N, R3E, MDB&M.

Proposed:

A total of not more than 2,824 acre-feet will be delivered through the CVP and/or SWP Pumping Plants.

VIII. Storage

Present:

None.

Proposed:

None.

IX. 1b.

Crop Idling

Under the proposed project, River Ranch will facilitate a program under which it will idle milo on field B3 and therefore reduce its surface water deliveries. This program will result in a reduction in consumptive use of surface water by River Ranch from the consumptive use which would occur absent the proposed crop idling. The forborne water will be made available on the same schedule that the water would have been consumptively used by the crops fallowed in accordance with the ETAW pattern established by DWR.

No new construction or improvements to River Ranch would be necessary under this crop idling plan. Water that will not be diverted for use within River Ranch will be available for transfer to the Drought Water Bank. The point of delivery will be at the downstream point of diversion for

License 9995, at the Hershey Pumping Plant, located at South 69°45' East 3,600 feet from NW Corner of Section 1, T10N, R3E, MDB&M, being within NW1/4 of NE1/4 of said Section 11.

Water will be deemed transferred by River Ranch to the Drought Water Bank at points of delivery in accordance with the preceding schedule. Transfer of the water will occur within the regulatory parameters for the CVP and SWP, including all applicable Biological Opinions that govern CVP and SWP pumping at the proposed points of diversion. As such, water may not be able to be transferred in May and possibly June due to environmental restrictions on CVP and SWP pumping during these periods.

The following tables demonstrate the historical consumptive use for the crops to be idled to facilitate this temporary transfer. On March 31, 2009, the River Ranch was notified by the USBR that technical staff from the USBR and the Department of Water Resources reviewed the River Ranch's 2009 Drought Water Bank application and determined that field B3 is eligible to participate, and therefore, 193 acre-feet of water could be made available through crop idling actions by the River Ranch.

Crop History						
Field	**Net Acres**	**2004**	**2005**	**2006**	**2007**	**2008**
B3	120.4	Rice	Rice	Rice	Rice	Milo

Consumptive Use History							
Field	**Net Acres**	**2004**	**2005**	**2006**	**2007**	**2008**	**5-year Average Use**
B3	120.4	397.3	397.3	397.3	397.3	192.6	356.36

Groundwater Substitution

As part of the proposed project, River Ranch will temporarily substitute groundwater in-lieu of surface water deliveries. This program will result in a reduction in consumptive use of surface water by River Ranch from the consumptive use which would occur absent the proposed groundwater substitution transfer.

No new construction or improvements to River Ranch would be necessary for the production and transfer of this water. Water that will not be diverted for use within River Ranch will be available for transfer to the Drought Water Bank. The point of delivery will be at the downstream point of diversion for License 9995, at the Hershey Pumping Plant, located at South 69°45' East 3,600 feet from NW Corner of Section 1, T10N, R3E, MDB&M, being within NW1/4 of NE1/4 of said Section 11.

Water will be deemed transferred by River Ranch to the Drought Water Bank at points of delivery in accordance with the preceding schedule. Transfer of the water will occur within the regulatory parameters for the CVP and SWP, including all applicable Biological Opinions that

govern CVP and SWP pumping at the proposed points of diversion. As such, water may not be able to be transferred in May and possibly June due to environmental restrictions on CVP and SWP pumping during these periods.

On April 15, 2009, the River Ranch was notified by DWR that DWR and USBR staff found that River Ranch's well GW-10 meets the criteria for wells to be used in a groundwater substitution transfer to the Drought Water Bank. DWR requested that additional information be submitted for wells GW-1 and GW-9. The River Ranch is conducting a further investigation of these wells.

X. 2a.-2c.

River Ranch is proposing delivery to the Drought Water Bank at a point downstream of the point of diversion for License 9995, which is the Hershey Pumping Plant, located at South 69°45' East 3,600 feet from NW Corner of Section 1, T10N, R3E, MDB&M, being within NW1/4 of NE1/4 of said Section 11. The proposed transfer will result in an increase in the flow between River Ranch's present point of diversion and the CVP and/or SWP pumping facilities. This increase in flow may result in a positive effect to the users between the present and proposed points of diversion. The water users possibly affected by the proposed transfer consist of Delta water users, the CVP, the SWP and the City of Sacramento. (See SWRCB file).

XI. 3a-3b.

By its crop idling and groundwater substitution project, River Ranch will reduce diversions and consumptive use which would occur absent the proposed transfer. Water from crop idling and groundwater substitution will be made available consistent with the draft Water Transfer Papers prepared by DWR. These papers have been developed to address the concerns of DWR relative to the potential impacts water transfers may have on other legal users.

As a result of this petition, the flow in the Sacramento River will increase by up to ~~2,824~~ 2,755 acre-feet during the time of transfer over what would have occurred absent the proposed transfer. The increased flow in the Sacramento River and in the Delta will be a small percentage of the total flow and will be water that would be available to River Ranch, absent this transfer. Therefore, no injury will occur.

XII. 4 and 5a.

The transfer will take place within the conditions of SWRCB's May 22, 1995 Water Quality Control Plan and, therefore, no adverse impacts will occur. As a result, neither the Regional Water Quality Control Board nor the Department of Fish and Game were contacted.

XIII. 5c and d.

The proposed transfer may provide environmental benefits through increased flows downstream of River Ranch's present point of diversion due to the reduction in surface water diversions. These reduced diversions may provide additional flows during critical periods of the year form River Ranch's point of diversion to the Delta. These additional flows would enhance habitat for

California Environmental Protection Agency

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ENVIRONMENTAL INFORMATION FOR PETITIONS

☑ **Petition for Change** ☐ **Petition for Extension of Time**

Before the State Water Resources Control Board (SWRCB) can approve a petition to change your water right permit or a petition for extension of time to complete use, the SWRCB must consider the information contained in an environmental document prepared in compliance with the California Environmental Quality Act (CEQA). This form is not a CEQA document. If a CEQA document has not yet been prepared, a determination must be made of who is responsible for its preparation. As the petitioner, you are responsible for all costs associated with the environmental evaluation and preparation of the required CEQA documents. Please answer the following questions to the best of your ability and submit any studies that have been conducted regarding the environmental evaluation of your project. If you need more space to completely answer the questions, please number and attach additional sheets.

1. DESCRIPTION OF PROPOSED CHANGES OR WORK REMAINING TO BE COMPLETED

For a petition to change, provide a description of the proposed changes to your project including, but not limited to, type of construction activity, structures existing or to be built, area to be graded or excavated, increase in water diversion and use (up to the amount authorized by the permit), changes in land use, and project operational changes, including changes in how the water will be used. For a petition for extension of time, provide a description of what work has been completed and what remains to be done. Include in your description any of the above elements that will occur during the requested extension period.

☑ *See Attachment No.* 1

2. COUNTY PERMITS

a. Contact your county planning or public works department and provide the following information:

Person contacted: Warren Westrup Date of contact: February 3, 2009

Department: Director of Parks and Recreation Telephone: (530) 666-8775

Rec'd $100
4-16-09
AMM

County Zoning Designation: _____

Are any county permits required for your project? ☑ YES ☐ NO If YES, check appropriate box below:
☐ Grading permit ☐ Use permit ☐ Watercourse ☐ Obstruction permit ☐ Change of zoning
☐ General plan change ☑ Other (explain):

The Yolo County Groundwater Ordinance provides that any extractions of groundwater for use outside the county, including extractions to support a groundwater substitution-based transfer of surface water, must have a permit from Yolo County. Permit in progress.

b. Have you obtained any of the required permits described above? ☐ YES ☑ NO
If YES, provide a complete copy of each permit obtained.
☐ *See Attachment No.* ___

3. STATE/FEDERAL PERMITS AND REQUIREMENTS

a. Check any additional state or federal permits required for your project:
☐ Federal Energy Regulatory Commission ☐ U.S. Forest Service ☐ Bureau of Land Management
☐ Soil Conservation Service ☐ Dept. of Water Resources (Div. of Safety of Dams) ☐ Reclamation Board
☐ Coastal Commission ☐ State Lands Commission ☐ Other (specify) _____

b. For each agency from which a permit is required, provide the following information:

AGENCY	PERMIT TYPE	PERSON(S) CONTACTED	CONTACT DATE	TELEPHONE NO.

☐ *See Attachment No.* ___

c. Does your proposed project involve any construction or grading-related activity that has significantly altered or would significantly alter the bed or bank of any stream or lake? ☐ YES ☑ NO
If YES, explain: _____

☐ *See Attachment No.* ___

d. Have you contacted the California Department of Fish and Game concerning your project? ☐ YES ☑ NO
If YES, name and telephone number of contact: _____

4. ENVIRONMENTAL DOCUMENTS

a. Has any California public agency prepared an environmental document for your project? ☑ YES ☐ NO
a. If YES, submit a copy of the latest environmental document(s) prepared, including a copy of the notice of determination adopted by the California public agency. Public agency: Department of Water Resources
b. If NO, check the appropriate box and explain below, if necessary:
☐ The petitioner is a California public agency and will be preparing the environmental document.*

☐ I expect that the SWRCB will be preparing the environmental document.**
☐ I expect that a California public agency other than the State Water Resources Control Board will be preparing the environmental document.* Public agency: _____

_____

☑ *See Attachment No.* 2

* Note: When completed, submit a copy of the final environmental document (including notice of determination) or notice of exemption to the SWRCB, Division of Water Rights. Processing of your petition cannot proceed until these documents are submitted.

** Note: CEQA requires that the SWRCB, as Lead Agency, prepare the environmental document. The information contained in the environmental document must be developed by the petitioner and at the petitioner's expense under the direction of the SWRCB, Division of Water Rights.

5. WASTE/WASTEWATER

a. Will your project, during construction or operation, (1) generate waste or wastewater containing such things as sewage, industrial chemicals, metals, or agricultural chemicals, or (2) cause erosion, turbidity or sedimentation?
☐ YES ☑ NO
If YES, or you are unsure of your answer, explain below and contact your local Regional Water Quality Control Board for the following information (See instruction booklet for address and telephone no.):

_____

☐ *See Attachment No.* ___

b. Will a waste discharge permit be required for your project? ☐ YES ☑ NO

Person contacted: _____ Date of contact: _____

c. What method of treatment and disposal will be used? _____

_____

_____

☐ *See Attachment No.* ___

6. ARCHEOLOGY

a. Have any archeological reports been prepared on this project? ☐ YES ☑ NO
b. Will you be preparing an archeological report to satisfy another public agency? ☐ YES ☑ NO
c. Do you know of any archeological or historic sites located within the general project area? ☐ YES ☑ NO
If YES, explain: _____

_____

_____

☐ *See Attachment No.* ___

7. ENVIRONMENTAL SETTING

Attach **three complete sets of color photographs**, clearly dated and labeled, showing the vegetation that exists at the below-listed three locations. For time extension petitions, the photographs should document only those areas of the project that will be impacted during the requested extension period.

☐ Along the stream channel immediately downstream from the proposed point(s) of diversion.
☐ Along the stream channel immediately upstream from the proposed point(s) of diversion.
☐ At the place(s) where the water is to be used.

Attachment No. 1
Project Description

Forbearance of Water

Sacramento River Ranch, LLC, and Sacramento River Ranch II, LLC (collectively "River Ranch"), proposes a program of crop idling and groundwater substitution transfer to the Department of Water Resources' Drought Water Bank. The source of surface water is the Sacramento River. This water right license has historically been used by the River Ranch to provide water for irrigation purposes. River Ranch would make up to 2,824 acre-feet of water available as a result of crop idling and groundwater substitution. The sources of this water would be River Ranch's undivided 52.9% interest in License 9995 (Application 4901), entitling River Ranch to 52.9% of 22 cfs from April 1 to October 31. In addition, a portion of the River Ranch is subject to a settlement contract between River Ranch and the United States Bureau of Reclamation ("USBR") dated April 5, 2005, and known as Contract No. 14-06-200-2149A-R-1, which authorizes the diversion and use of 4,000 acre-feet per year from the Sacramento River.

By crop idling and thus forbearing diversion of a portion of the water that normally would be diverted and consumptively used for crops on River Ranch property, River Ranch will make available ~~193~~ 193 AF for transfer to the Drought Water Bank. In addition, River Ranch will transfer 2,631 AF to the Drought Water Bank by groundwater substitution.

Under the proposal, USBR would operate the Central Valley Project ("CVP") so as to deliver water made available as a result of River Ranch's forbearance of diversions to the Drought Water Bank. During balanced conditions in the Delta (as defined in the Coordinated Operations Agreement), USBR would, to the extent possible, directly divert the water forborne or would, to the extent that operational conditions upon the Sacramento River permit, back the forborne water into USBR's upstream storage so that it can be released and diverted in the Delta at a later time when export capacity becomes available. During excess conditions in the Delta and when the CVP reservoir release is controlled by a downstream flow objective, USBR would, to the extent possible, store water forborne in an upstream CVP reservoir for later release and diversion in the Delta. Such operational conditions would be identified by USBR's Central Valley Operation Office, which would keep daily records of the volume of the forborne water as it becomes available for export and/or storage. Forborne water made available under conditions that do not permit its diversion from the Delta and/or storage in upstream reservoirs would be considered lost. Water backed into storage pursuant to this proposal would be delivered to the Drought Water Bank as soon as possible after its storage in an upstream reservoir. The Drought Water Bank would pay for such storage at the rate determined by USBR. Water stored in an upstream CVP reservoir pursuant to this forbearance proposal would be the first water to spill. The delivery of forborne water outside normal delivery schedules would require authorization from USBR via a Warren Act contract.

The methods used to determine the amount of water made available under this proposal through crop idling and groundwater substitution would be consistent with the methods contained in the Department of Water Resources' March 8, 2002, draft *Water Transfers Papers for Water*

Transfers in 2002 Involving the Department of Water Resources, commonly referred to as the "DWR White Papers."

Methods of Making Water Available

No new construction of improvements to facilities owned or operated by River Ranch would be necessary for the production and forbearance of this water. The point of delivery for River Ranch would be at movable points of diversion along the Sacramento River between limits as follows: Keller Pumping Plant, North 28°05' East 2,230 feet from SW Corner of Section 27, T11N, R3E, MDB&M, being within NW1/4 of SW1/4 of said Section 27; and Hershey Pumping Plant, South 69°45' East 3,600 feet from NW Corner of Section 11, T10N, R3E, MDB&M, being within NW1/4 of NE1/4 of said Section 11; and Knights Landing Outfall Gates, North 17°00' East 2,660 feet from SW Corner of Section 14, T11N, R2E, MDB&M, being within NW1/4 of SW1/4 of said Section 14.

The quantity of water made available through crop idling will be ~~193~~ 122 acre-feet. The quantity of water made available through groundwater substitution will be 2,631 acre-feet. The transfer period will be July 1 to October 1, 2009. Only groundwater wells that meet the criteria contained in the "DWR White Papers" would be used in this forbearance program. All participating wells would be equipped with totalizing flow meters. Groundwater would be made available during balanced conditions in the Delta, when the transfers would be in effect. Groundwater pumping during excess conditions in the Delta would not be accrued in upstream storage or exported by USBR.

The Drought Water Bank would take delivery of this water in a manner physically identical to typical deliveries. This water would be used to make up for short-falls in normal water deliveries. Accordingly, any water delivered under the proposed Project would not represent an overall increase in supply or change in Drought Water Bank participants' operations.

The Yolo County Groundwater Ordinance provides that any extractions of groundwater for use outside the county, including extractions to support a groundwater substitution-based transfer of surface water, must have a permit with the County. Thus, the River Ranch will need to obtain a permit from Yolo County to participate in the 2009 Drought Water Bank.

Sources of the Transferable Water

Surface water deliveries forborne by this program will be replaced by groundwater derived from two wells on River Ranch property: Well 123448 and Well 33839. Well 123448 water will be conveyed to the following fields through irrigation ditches and then applied using siphon pipes: FSA Field Nos. H3A (76.6 irrigated acres), H3B (80.0 irrigated acres), H4 (92.9 irrigated acres), H5 (90.0 irrigated acres), H6 (141.8 irrigated acres), H7 (148.1 irrigated acres), H8 (83.9 irrigated acres), and H9 (75.0 irrigated acres).

Well 33839 water will be pumped through a pipeline to Field R3 (83.9 irrigated acres) and then into a ditch to be applied with siphon pipes. The total projected beneficial use of these fields is 2,989.8 acre-feet. With a twelve percent reduction, groundwater substitution can account for

Attachment No. 2

Addendum to the

Environmental Water Account

Environmental Impact Statement/Environmental Impact Report

http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=107

Re: 2009 Drought Water Bank Transfers

State Clearinghouse #1996032083

Prepared by the State of California

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Introduction

This Addendum has been prepared as part of the Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (2004) and Supplement (2008) for the Environmental Water Account (EWA). The Addendum notes and discusses three minor changes to the EWA project as analyzed. The EWA EIS/EIR includes the Department of Water Resources (DWR) as the lead State agency for the California Environmental Quality Act (CEQA) and the Bureau of Reclamation (Reclamation) the lead Federal agency for the National Environmental Policy Act (NEPA). *CEQA Guidelines Section 15164* provides guidelines for preparation of an Addendum to an EIR.

The EWA is an existing and ongoing CalFED program that seeks to increase protection to the fish resources of the Bay-Delta estuary. These protections go beyond those afforded by the regulatory baseline identified in the 2000 Record of Decision for the CalFED program through operational curtailments of the State Water Project (SWP) and Central Valley Project (CVP; collectively Project) operations at no net cost to Project deliveries and supply. The regulatory baseline was determined by the standards in the

1994 Bay-Delta Accord, as incorporated into Project operations and in the Project descriptions included in No Jeopardy Biological Opinions promulgated in 1995 under the federal Endangered Species Act (ESA) for Project operations. EWA operational curtailments include reductions in pumping, increases in flow through the Delta, and changes in the flow regime within Delta channels. The primary means for compensating for delivery reductions in Project water to the Project contractors on account of the curtailments is through transfers of up to 600,000 acre-feet per year of non-Project water.

Thus, two key features of the EWA are:

(1) Reductions in water deliveries resulting from Project operation curtailments beyond the water costs of the regulatory baseline; and
(2) Replacement of water supplies lost to the Project on account of these curtailments from non-Project sources through the acquisition and transfer of non-Project supplies.

The EWA originally provided that curtailments for additional fish protection beyond the regulatory baseline would be determined by the three Management Agencies (US Fish and Wildlife Service, National Marine Fisheries Service, and Department of Fish and Game). However, such curtailments have recently been pre-empted and imposed on the Project by the Federal District Court as an injunctive remedy under the federal ESA, with no provision, however, for the replacement of lost water supplies. Along with this asymmetrical, uncompensated application of curtailments beyond the regulatory baseline, two years of statewide drought and the prospect of a third year, were addressed in the summer of 2008 in an Executive Order issued by the Governor and in a subsequent Governor's Proclamation of Drought Emergency for the Central Valley. In these documents, the Governor called for increased water transfers and in particular the establishment of a Drought Water Bank for 2009 to alleviate the reduction in deliveries and water shortages.

The 2009 Drought Water Bank (DWB) thus will be the mechanism for acquiring and transferring water to replace Project supplies lost and that will be lost due to the judicially mandated operational curtailments, aggravated by the conditions of drought. These transfers will not come close to making up the mandated losses below the regulatory baseline. Nor will they be at no cost to Project contractors. This source of water must be paid for by its recipients, and no offset or credit is planned to be given for losses due to the imposed curtailments.

In addition, the DWB acquisitions will be available to users others than SWP and CVP contractors. In this sense, the purpose of the EWA transfers is being generalized on account of the dry conditions to all water users suffering curtailments, not just Project contractors; but the essential purpose of the transfers program remains the same: the need to replace reductions in accustomed water deliveries and supplies by water transfers. Although the DWB is not restricted to SWP and CVP contractors, the fact that Project facilities will be used in securing or delivering the water under the DWB means that the great majority will go the SWP and the CVP service areas; as does the fact that Project contractors represent the vast majority of the state's population.

The EWA originally looked to selected areas in the Central Valley for transfer water supplies, but only because at the time they represented the location of willing sellers. There is nothing in the EWA that intended to preclude looking to sellers in other similar areas of the Central Valley, and one purpose of this Addendum is to assess those other areas that appear to be available for transfers in 2009 that were previously unavailable. As the EWA's exclusive mechanism in 2009 for securing replacement water for curtailed operations through transfers, the DWB is limited to the maximum 600,000 acre-feet analyzed in the EIS/EIR for the program.

There are three changes and additions proposed by the DWR in the DWB that differ from the Flexible Purchase Alternative project described in the EWA EIS/EIR. DWR, acting as Lead Agency, has determined that none of these changes involves new

significant environmental effects, a substantial increase in the severity of previously identified significant effects, or substantial changes in the circumstances under which the project will be implemented. For these reasons, DWR has elected to prepare this Addendum to the EWA EIS/EIR.

The three changes that are discussed in this Addendum are as follows:

1. Change in giant garter snake mitigation in response to the Draft US Fish and Wildlife Service (USFWS) Biological Opinion
2. Change in the areas from which water may be purchased
3. Change in the areas to which water may be delivered

Following are explanations of each of these changes and the rationale for the determination that they constitute only minor technical changes and additions that involve no new significant environmental effects or substantial increases in severity of previously identified significant effects.

1. Change in Giant Garter Snake Mitigation

As part of the DWB, DWR will implement a series of conservation measures to offset the potential effects of rice crop idling and crop substitution water transfers on Sacramento Valley populations of giant garter snakes. These measures can be found in conditions in a Draft Biological Opinion issued by USFWS on November 18, 2008. This Draft Biological Opinion includes the following protections for the giant garter snake: 1) exclusion areas from rice crop idling that are known giant garter snake core habitats and habitat corridors, 2) description of rice land best management practices for the giant garter snake, 3) and idled rice crop land limitations of no more than 320 continuous acres, using a checkerboard pattern as the preferred layout.

DWR has prepared a Giant Garter Snake Baseline Monitoring and Research Strategy.

The implementation of this Strategy will provide significant contributions towards the development of a Giant Garter Snake Conservation Strategy for the Sacramento Valley. The Strategy has been reviewed and endorsed by State and Federal agencies and two giant garter snake experts, Eric Hansen and Glenn Wylie. Monitoring and research will be the primary tools to gather information on giant garter snake distribution, life history, and ecology. Monitoring will be designed to assess population structure, distribution, and movement within the Sacramento Valley and determine the existing (baseline) population of study sites. The duration of the monitoring and research study designs will incorporate the goal of including wet, dry, and normal hydrologic years.

Broad monitoring and research goals include:

a. Developing and implementing a monitoring plan for giant garter snake populations in the Sacramento Valley,
b. Monitoring giant garter snake populations for a minimum of ten years (subject to appropriations) using multiple survey methods (e.g., trapping, hand captures, and mark-recapture),
c. Using radio-telemetry and mark-recapture to study habitat use and selection, mortality rates, response to crop idling, and use of rice lands for a minimum of five years, and
d. Gathering enough data to make recommendations to minimize the effects of crop idling practices on the giant garter snake and make general conservation recommendations to the California Rice Industry Association to update their 1995 publication *Managing Ricelands for Giant Garter Snakes*. Conservation recommendations may include actions that rice farmers could implement to reduce potential impacts to the giant garter snake from rice farming, or actions a rice farmer could implement to increase the habitat value for the giant garter snake.

Specific research goals include:

a. Developing and implementing a radio-telemetry study for a minimum of five years (subject to appropriations),
b. Quantifying and evaluating the response (*e.g.*, movement patterns and survival) of giant garter snakes to changes in habitat conditions and landscape cropping patterns,
c. Quantifying and evaluating the response of giant garter snakes to crop idling including a specific experimental design to evaluate different block sizes and landscape patterns,
d. Examining the relationship of giant garter snake habitat use in relation to habitat availability and surrounding land use using GIS technologies,
e. Quantifying giant garter snake survival and population fecundity (*e.g.*, number of immature to adults) in relation to changing environmental and habitat conditions and identify variables that may be important correlates of survival and fecundity,
f. Quantifying minimum size of buffer zone between idled rice fields and suitable habitat, and
g. Providing recommendations for adaptive management of giant garter snakes with respect to water transfers.

In light of new scientific information, there are two modifications to the conservation measures contained in the 2003 EWA EIS/EIR. Both are based on the recognition of new data and changed circumstances since 2003. 1) A change in the idled block size from 160 to 320 acres, and 2) the locations from which water transfers can occur.

The expansion of the block size from 160 acres (1/2 mile on each side of a square) to 320 acres (approximately 3/4 mile on each side of a square) would change the distance a giant garter snake would travel through an idled block by approximately 1/4 mile or 1,320 feet. The original 160 acre block size was largely based on estimates of median home range size. Although the median is a useful number, the home range size of an

animal is affected by many variables and may be a misleading indicator of the distance an animal can successfully travel between habitats. Estimates of maximum home range sizes and distances traveled suggest that a 320 acre block is a navigable size for a giant garter snake.

It is important to consider that when a giant garter snake emerges from aestivation in March or April, not all rice fields are flooded, and during that time, rice fields may not provide a habitat component that is significantly different from idled fields. Hansen (1986) found that giant garter snakes in the Sacramento Valley avoided large bodies of shallow open water (rice fields are generally over 100 acres in size and flooded to a depth of 3-5 inches). In general, rice fields do not provide high quality habitat for the giant garter snake until the rice plants emerge in the flooded rice field and reduce the amount of open water, typically in June. Before this time, permanent wetlands, flooded ditches, and flooded canals are important habitats. The seller will be required to maintain baseline water in major irrigation and drainage canals to serve as movement corridors and habitat for giant garter snakes during this period.

The expansion of the block size has the potential to expose giant garter snakes to more adverse habitat conditions and potentially increase their exposure to predators if a snake chooses to cross an idled block. However, telemetry studies suggest that a giant garter snake is unlikely to leave suitable habitat to cross large areas of upland (Wylie et. al 2003, Wylie and Amarello 2008). The probability that a snake enters a large block of upland is not likely to be significantly different based on whether an upland block size is 160 or 320 acres. External factors such as habitat disturbance and the surrounding landscape are likely more significant factors affecting long movements (Wylie et. al 1997, Wylie 1998, Wylie et. al 2002). Constraining idled parcels to a checkerboard pattern in which idled parcels may not completely share a common boundary, maintaining water in main ditches and canals, and excluding core habitats and corridors is expected to help reduce any potential impacts of increasing the crop idled block size on the giant garter snake population.

A part of the Giant Garter Snake Baseline Monitoring and Research Strategy will include implementation of a radio-telemetry study to evaluate and quantify the response of the giant garter snake to riceland idling, thereby providing additional data on giant garter snake behavior and ecology. Furthermore, ongoing studies funded through the Ecosystem Restoration Program will also provide data on giant garter snake response to cropland idling and habitat restoration.

The EWA Biological Opinion excluded Yolo County east of Highway 113 from crop idling and substitution actions. Yolo County is known to support the giant garter snake, yet very little data is available on the population size, or distribution within this area. Surveys in 2005-2007, documented snakes at the Yolo Wildlife Area, Conaway Ranch, and Davis Wetlands (Hansen 2008). A giant garter snake Conservation Bank has been established south of Interstate 80 inside the Yolo Bypass and habitat has been created for the giant garter snake within the Yolo Wildlife Area. The area of Yolo County east of Highway 113 will be included in the DWB.

Existing protected habitats within the area and the conservation measures outlined in the DWB, should reduce any potential impacts to the giant garter snake population by including this area in the DWB.

At the request of the USFWS, the Natomas Basin is excluded from the DWB. This area is currently implementing a Habitat Conservation Plan that includes impacts to the giant garter snake.

In summary, DWR is initiating a number of conservation measures to reduce the effect of crop idling and crop substitution actions on the giant garter snake. These actions include requiring rice farmers to follow Best Management Practices as described in the Draft Giant Garter Snake Recovery Plan (USFWS 1999), requiring baseline water in main canals and ditches, minimizing the size of idled parcels, idling parcels using a

checkerboard pattern as the preferred layout, and excluding lands adjacent to habitat corridors and lands with known populations. Together, these actions are expected to reduce any impacts to the giant garter snake population to less than significant.

2. Change in the areas from which water may be purchased

The Supplemental EWA EIS/EIR study area includes areas of California that might receive benefits from EWA actions or areas potentially affected by EWA because they serve as a site for EWA water asset acquisition, conveyance, or storage. The EWA study area comprises the land and tributaries upstream from the Delta, the Delta, and the CVP and SWP Export Service Area. This is roughly the same study area that will be a part of the DWB. The CVP and SWP Export Service Area is defined as those lands that receive SWP and CVP water via the south Delta pumping plants, as well as reservoirs that are used for EWA asset management.

The overall EWA study area includes areas that may be directly or indirectly affected by potential EWA acquisitions. These areas include the same areas found as part of the DWB. Those areas that may participate in the DWB, but are not specifically described in the EWA documentation are located adjacent to those areas that are described and include the same ecosystem features, and the same species composition. Thus the analysis and conclusions done as part of the EWA document would be the same as any analysis and conclusions that would be done for those areas that are not specifically described as part of the EWA but may be a part of the DWB.

As done in the EWA document, the effects analysis done on fisheries and water quality in the Delta does not depend on the location of the water seller, but on the total amount of water to be transferred via a particular tributary and receiving water body. Thus, fisheries and water quality effects were evaluated based on the largest amount of water that EWA agencies could manage in the Delta for fish actions (approximately 600,000 acre-feet, per the analyses in the EWA EIS/EIR), regardless of whether the specific water sellers could be identified. Therefore, the effects analysis represents a "worst-

case scenario" based on the maximum amount of water that may be purchased by the EWA agencies. The circumstances mentioned above will be exactly the same for the DWB.

The EWA document evaluated impacts by regions and does not analyze impacts as a complete list of specific areas. Some of the regions described in the EWA EIS/EIR include the following:

a. Agricultural lands in the Sacramento Valley (Butte, Colusa, Glenn, Placer, Sutter, and Yolo counties) and the San Joaquin Valley (Kings, Fresno, Kern, and Tulare counties) in which farmers participate in crop idling and/or crop substitution; and

b. Groundwater basins that participate in acquisition of EWA water via groundwater substitution, stored groundwater purchase, or groundwater storage.

c. Areas upstream of the Delta include the Sacramento Valley, the Sacramento River, and its tributary rivers: Feather, Yuba, and American rivers. Because the San Joaquin River also flows into the Delta upstream from the Delta pumps, the portions of the San Joaquin Valley that are drained by the San Joaquin River are also considered to be "upstream" from the Delta. The Merced River, a San Joaquin River tributary, is also part of the Upstream from the Delta region.

The areas described above are the same or similar in nature to the areas that are a part of the DWB. Table 1 lists agencies (those that are covered in the EWA documentation and those that are not) that may be willing to sell water to the DWB along with a maximum amount of potentially available water volumes. DWR would only make purchases from willing sellers. The numbers presented in Table 1 are estimates and do not necessarily reflect the amount of water that would be available in 2009. Generally, these estimates reflect the potential upper limit of available water in order to include the maximum extent of potential transfers in the environmental analysis. Actual purchases would depend on the year type, DWB funding (interested buyers), and the amounts that sellers would ultimately be willing to transfer in 2009. The potential transfers identified

in Table 1 may not all occur. All of the potential transfers are in regions identified and analyzed in the EWA documentation.

Table 1. Potential Sellers (Upper Limits, in Acre Feet)				
Water Agency (County)	***Stored Reservoir Water***	***Groundwater Substitution***	***Crop Idling Substitution***	***Method TBD***
Upstream from the Delta Region				
Sacramento River Area of Analysis				
*Amaral Ranch (Sutter)	-	2,000	2,000	
*Carter MWC (Colusa)	-	650	0	
*+Conaway Preservation Group (Yolo)	-	0	25,000	
+Glenn-Colusa ID (Glenn and Colusa)	-	0	50,000	
*Lewis Ranch (Colusa)	-	2,000	0	
*Maxwell ID (Colusa)	-	1,200	2,500	
*+Meridian Farms (Sutter)	-	1,000	2,000	
+Natomas Central MWC (Sutter and Sacramento)	-	10,000	0	
*Orland Unit Water User's Association (Glenn)	10,000	-	-	
*Parrott Investment Company (Butte)	-	0	1,500	
*+Pelger MWC (Sutter)	-	1,500	2,000	
*Pinnacle Land Ventures, LLC (Broomieside Farms) (Sutter)	-	10,000	0	
*+Pleasant Grove-Verona MWC (Sutter)	-	6,000	4,000	
*+Princeton-Codora-Glenn ID (Glenn and Colusa)	-			3,000
*+Provident ID (Glenn and Colusa)	-			3,000
*+River Garden Farms (Yolo)	-	3,500	0	
+Reclamation District 108 (Colusa and Yolo)	-	4,000	20,000	
*+Reclamation District 1004 (Colusa)	-	50,000	10,000	
*Sacramento River Ranch (Yolo)	-	1,000	1,275	
*+Sutter MWC (Sutter)	-	0	10,000	
*Sycamore MWC (Colusa)	-	2,400	6,360	
*Upper Swanston Ranch (Yolo)	-	8,500	0	
Subtotal	-	103,750	136,635	6,000
Feather River Area of Analysis				
*Browns Valley ID	5,000	0	0	
Butte WD (Butte and Sutter)	-	10,000	10,000	
Garden Highway MWC (Sutter)		2,000	0	
*Goose Club Farms (Sutter)	-	0	3,500	
Richvale ID (Butte)		0	10,000	
South Sutter WD(Sutter and Placer)		-	-	10,000
Sutter Extension WD (Sutter)		11,000	14,000	
*Plumas MWC		2,800	1,750	
Western Canal Water District (Butte and Glenn)	-	0	20,000	
Yuba County Water Agency		110,000		
Subtotal	5,000	135,800	59,250	10,000

Table 1 cont. Potential Sellers (Upper Limits, in Acre Feet)				
American River Area of Analysis				
+Placer County WA (Placer)	20,000			
Sacramento Suburban WD		17,000		
+City of Sacramento (Sacramento)		5,000		
Subtotal	20,000	23,000		
Merced/San Joaquin River Area of Analysis				
Merced ID(Merced)				25,000*
	-	-	-	-
Total	35,000	261,550	195,885	41,000
Grand Total	**533,435**			
GW: Groundwater		WA: Water Agency		
ID: Irrigation District		WD: Water District		
MWC: Mutual Water Company		TBD: To be Determined		

Note: Those agencies/project components with an * are not specifically identified in the EWA EIS/EIR

Note: Those agencies with a + will require Bureau of Reclamation approval

3. Change in the areas to which water may be delivered

The State Legislature has established legal principles that must be satisfied if the DWB and its participating buyers are to be involved in the purchase or conveyance of water. These legal principles require the buyers to be concerned about the impacts of its water purchases on the water source areas. This concern about possible local area impacts of water transfer makes the buyers an "enlightened consumer" as it enters the water market.

As defined by the EWA documents, the export service area is defined as the area that receives, stores, and uses CVP and SWP water pumped from the Delta. It includes the San Joaquin Valley and CVP/SWP customers in the Bay Area, south central California Coast, and southern California. These areas are similar in nature to those that are a part of the DWB. Any analysis and conclusions done as part of the EWA EIS/EIR will be the same if done for the DWB.

Table 2 identifies potential buyers (those that are covered in the EWA documentation and those that are not) who have indicated interest in participating in the DWB. Not all of these potential buyers may end up actually purchasing water from the DWB in 2009.

Table 2 ***Potential Buyers (Upper Limits in Acre Feet)***		
Water Agency		***Amount Requested***
Downstream from the Delta		
Alameda County Water District		20,000
Antelope Valley East Kern Water Agency		28,212
Central Cost Water Authority		15,000
Castaic Lake Water Agency		10,000
*Contra Costa Water District		20,000
Desert Water Agency		10,000
Dudley Ridge Water District		7,500
Kern County Water Agency		123,333
Metropolitan Water District of Southern California		300,000
Mojave Water Agency		1,000
Oak Flat Water District		1,000
Palmdale Water District		8,000
San Bernardino Valley Municipal Water District		20,000
San Diego County Water Authority		10,000
San Luis & Delta Mendota Water Authority, which includes:		150,000
Byron Bethany Irrigation District	Oro Loma Water District	
Del Puerto Water District	Pacheco Water District	
Eagle Field Water District	Panoche Water District	
James Irrigation District	Patterson Irrigation District	
Laguna Water District	Reclamation District 1606	
Mercy Springs Water District	San Benito County Water District	
Tranquility Irrigation District	Banta Carbona Irrigation District	
West Side Irrigation District	City of Coalinga	

Table 2 ***Potential Buyers (Continued)***		
Water Agency		***Amount Requested***
San Luis & Delta Mendota Water Authority (continued):		
West Stanislaus Irrigation District	City of Huron	
Westlands Water District	City of Avenal	
Broadview Water District	Avenal State Prison	
Santa Clara Valley Water District		30,000
Tulare Lake Basin Water Storage District		20,000
Upstream from the Delta		
*Bella Vista Water District		2,000
*Dunnigan Water District		2,000
City of Yuba City		2,000
Napa County Flood Control and Water Conservation District		13,860
*Tehama Colusa Canal Authority		25,000

Note: Those agencies with an * are not specifically Identified in EWA EIS/EIR

Currently, there are four potential buyers of DWB water that are outside of those identified in the EWA EIS/EIR; 1) Bella Vista Water District, 2) Dunnigan Water District, 3) Contra Costa Water District, and 4) the Tehama Colusa Canal Authority. All four buyers will not be using the purchased water for any new users or contribute to any level of use above their baseline usage.

The Bella Vista Water District is located in Shasta County and provides water to approximately 5,700 municipal users in the northeast portion the City of Redding and 300 agricultural users (primarily, irrigated pasture). They have a contract with the Bureau of Reclamation for 24,578 acre-feet of water. Over the last five years, annual water consumption averaged 20,645 acre-feet.

The Contra Costa Water District (CCWD) provides water to primarily industrial and municipal users in Contra Costa County. Over the last five years, annual water consumption has averaged 120,000 acre-feet. CCWD provides less than 100 acre-feet a year to agricultural users.

The Dunnigan Water District is located in northern Yolo County and uses contracted water from the CVP delivered from the Tehama Colusa Canal. Over the last five years, annual water consumption has average 16,000 acre-feet. The majority of water, approximately 98 percent, goes to agricultural users and the remaining 2 percent to landscaping. The variety of crops within the district includes permanent orchards and vineyards.

The Tehama-Colusa Canal Authority (TCCA) is a Joint Powers Authority comprised of 17 CVP water contractors. The service area spans four counties (Tehama, Glenn, Colusa, and Yolo) along the west side of the Sacramento Valley, providing irrigation water to farmers growing a variety of permanent and annual crops. TCCA operates and maintains the 140 mile Tehama-Colusa and Corning canals irrigation water supply system. The service area is approximately 150,000 acres.

Conclusion

The use of an addendum to the Supplemental EWA EIS/EIR for the DWB is consistent with CEQA guidelines. The DWB comprises no substantial changes to the analysis done in the Supplemental EWA EIS/EIR. The actions for the DWB are the same as described in the EWA document.

The sellers and buyers as part of the DWB will have asset acquisition amounts that are the same or less than that described in the EWA document. Therefore, any analysis will be the same and any resource impacts will be the same or less. All DWB water transfer actions have been described and analyzed in the EWA documents.

For further clarification on the environmental factors potentially affected by the DWB, a copy of the checklist found in Appendix G of the CEQA Guidelines can be found after the bibliography. Any environmental issues found below in the checklist are explained as part of the addendum.

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Environmental Checklist Form

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.

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
1. AESTHETICS – Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☑
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
2. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
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?	☐	☐	☐	☑
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☑
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?	☐	☐	☑	☐

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
3. AIR QUALITY--Where available, the significant criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☑	☐
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 that exceed quantitative thresholds for ozone precursors)?	☐	☑	☐	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☑
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑

The following text (in italics) is excerpted from the EWA DEIS/DEIR, July 2003, pp. 8-16 and if:

The potential effects on air quality due to groundwater substitution, stored groundwater purchase, and crop idling would not differ by county. Therefore, the effects of the EWA actions are evaluated for the Upstream from the Delta Region as a whole.

Groundwater substitution would require use of groundwater pumps to retrieve groundwater. Groundwater substitution would take place in Glenn, Colusa, Yolo, Butte, Sutter, Sacramento, Shasta, and Yuba Counties. Agricultural users would use groundwater instead of surface water for their water supply. The use of groundwater would require pumps to lift the groundwater to the surface. Groundwater pumps can be driven by many different means. Table 8-4 shows the estimated NOx and PM10

emissions for a 115 hp pump with electric, propane, and diesel motors, operating under the assumptions described in Section 8.2.1.1. NOx and PM10 emissions are presented because several counties are in nonattainment for ozone and PM10 and NOx is considered an ozone precursor. This information is for comparison purposes, but actual pollutants emitted depend on how the pump is powered, the size of the pump, the efficiency of the well, the length of time the pump is running, and the depth to groundwater.

Table 8-4

Groundwater Pump Emissions by Motor Type

Motor Type	*NOx (lbs/year)*	*PM10 (lbs/year)*
"Dirty" Diesel	*2,544*	*236*
"Clean" Diesel	*2,007*	*236*
Electric	*84*	*5.6*
Propane	*562*	*66*

Source: California Farm Bureau Federation 1999.

These calculations assume that the pump would operate 2,000 hours in an average year. Electric pumps do not emit pollutants at the pump; the source of pollutants can be traced to emissions from the powerplant. Powerplants are given permits based on their maximum operating potential. Although the electricity required to power the groundwater pumps would not be needed under the Baseline Condition, the additional electricity would not cause any powerplant to exceed operating capacity. A majority of power is derived from fossil fuel combusted at powerplants to generate electricity required to run the groundwater pumps. CO2 is the primary pollutant emitted as a result of the oxidation of the carbon in the fuel. NOx and PM10 are also emitted. As mentioned previously, these pollutants are noteworthy because many of the counties in the Upstream from the Delta Region are nonattainment areas for ozone and PM10.

Diesel pump engines emit air pollutants through the exhaust. The primary pollutants from the pumps are NOx, TOC, CO, and particulates (including visible and nonvisible

emissions). Pumps that run on propane burn much cleaner than diesel, but still contribute NOx, CO2, VOCs, and trace amounts of SO2 and particulate matter.[6]

The pumps that would be used for groundwater substitution are existing pumps; no new pumps would be installed as a result of this alternative. The pumps have most likely been used in the past and will be used in the future; thus, the pumps are not a new source of emissions. However, groundwater substitution activities would result in use of the pumps at times when they would otherwise not be used.

According to CARB surveys, approximately 74.7 percent of groundwater pump emissions occur between April and September. The project-related emissions, both NOx and PM10, in Sacramento, Yolo, Sutter, Glenn, and Colusa Counties have been accounted for within CARB's inventory as is demonstrated by the fact that the annual average EWA project emissions produced from groundwater pumping would fall below the diesel-fueled groundwater pump emission inventory. (see Table 8-5, pg. 8-18, EWA DEIS/DEIS, 2003) *However, because the project-related emissions would be produced in a nonattainment area, the project would contribute to an existing air quality violation, which is a significant impact. Butte, Shasta, and Yuba Counties exceed CARB's inventory, also producing a significant impact. The mitigation measures listed in Section 8.2.7 would lower emissions to a negligible amount; therefore, these significant impacts would be reduced to a less-than-significant level.*

[6] *NOx = Nitrogen oxides, TOC = Total organic carbon, CO = Carbon monoxide, CO2 = Carbon dioxide, VOCs = Volatile organic compounds, SO2 = Sulfur dioxide.*

The mitigation measures specified in the EWA DEIS/DEIR for groundwater substitution water transfers are as follows:

8.2.7.1 Groundwater Substitution

If the EWA agencies obtain water from groundwater substitution, increased groundwater pumping would increase NOx emissions. The EWA agencies and willing sellers would work together to implement one, or a combination, of the following mitigation measures that is appropriate to reduce impacts to a less-than-significant level. The mitigation measures will be implemented within the willing seller's air district.

- *EWA agencies will require willing sellers to use only electric pumps.*
- *EWA agencies will require willing sellers to use electric or propane-fueled pumps. For each propane-fueled pump, a diesel engine within the district that is not a part of the EWA must be replaced with a propane or electric pump to 'offset' the emissions from the project-related pump.*
- *EWA agencies will require the willing sellers to purchase offsets to compensate for producing project-related emissions.*

The 2009 DWB intends to implement the last mitigation measure listed above in the following manner. Actual NOx emissions from diesel groundwater pumps will be calculated using actual anticipated operating conditions (i.e., fuel type) and scheduled hours of operation. Emissions of NOx that would have been emitted by farm equipment that would have been used on lands fallowed for water transfers for the 2009 DWB will also be calculated, and these foregone emissions will be used to offset NOx emissions from groundwater pumping. As long as emissions generated by groundwater substitution pumping do not exceed NOx emissions foregone due to land fallowing as part of the 2009 DWB, this impact will be reduced to a less than significant level.

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
4. BIOLOGICAL RESOURCES -- Would the project:				
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 Game or the U.S. Fish and Wildlife Service?	☐	☑	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☐	☑	☐
c. Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) or other wetlands through direct removal, filling, hydrological interruption, or other means?	☐	☐	☑	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☑	☐	☐
e. Conflict with any local applicable policies or ordinances protecting biological resources?	☐	☐	☐	☑
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
5. CULTURAL RESOURCES -- Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the California Code of Regulations (CCR)?	☐	☐	☐	☑
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR §15064.5?	☐	☐	☐	☑
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☑
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☑
e. Exceed an applicable Land Resource Development Plan (LRDP) or Program EIR standard of significance?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
6. GEOLOGY AND SOILS – Would the project:				
a. Expose people or structures to 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.	☐	☐	☐	☑
ii. Strong seismic ground shaking?	☐	☐	☐	☑
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☑
iv. Landslides?	☐	☐	☐	☑
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c. Be located on a geologic 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?	☐	☐	☐	☑
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
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?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
7. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☑
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?	☐	☐	☐	☑
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☑
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?	☐	☐	☐	☑
e. Result in a safety hazard for people residing or working in the project area 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?	☐	☐	☐	☑
f. Result in a safety hazard for people residing or working in the project area for a project within the vicinity of a private airstrip?	☐	☐	☐	☑
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑
8. HYDROLOGY AND WATER QUALITY – Would the project:				
a. Violate any water quality standards or WDRs?	☐	☐	☐	☑
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐
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?	☐	☐	☐	☑
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☐	☐	☐	☑
e. 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?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
f. Otherwise substantially degrade water quality?	☐	☐	☐	☑
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
h. Place structures within 100-year flood hazard area, which would impede or redirect flood flows?	☐	☐	☐	☑
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☑
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑
9. LAND USE AND PLANNING - Would the project:				
a. Physically divide an established community?	☐	☐	☐	☑
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 LRDP, 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 community conservation plan?	☐	☐	☐	☑
10. MINERAL RESOURCES -- Would the project:				
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?	☐	☐	☐	☑

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?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
11. NOISE – Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☑
b. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☐	☑
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
e. Exposure of people residing or working in the project area to excessive noise levels 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?	☐	☐	☐	☑
f. Exposure of people residing or working in the project area to excessive noise levels for a project within the vicinity of a private airstrip?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
12. POPULATION AND HOUSING – Would the project:				
a. Induce substantial 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)?	☐	☐	☐	☑
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
13. PUBLIC SERVICES				
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities and the 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?	☐	☐	☐	☑
Police protection?	☐	☐	☐	☑
Schools?	☐	☐	☐	☑
Parks?	☐	☐	☐	☑
Other public facilities?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
14. RECREATION				
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
15. TRANSPORTATION/TRAFFIC – Would the project:				
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)?	☐	☐	☐	☑
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☑
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?	☐	☐	☐	☑
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
e. Result in inadequate emergency access?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
16. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Board?	☐	☐	☐	☑
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
d. Have sufficient water supplies available to serve the project from existing entitlements and resources or are there new or expanded entitlements needed?	☐	☐	☐	☑
e. 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?	☐	☐	☐	☑
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
g. Comply with applicable federal, State, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

Symbols ☑ ☐	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
17. MANDATORY FINDINGS OF SIGNIFICANCE –				
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?	☐	☑	☐	☐
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)?	☐	☑	☐	☐
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☑