From: Barbara Vlamis <barbarav@aqualliance.net>
Sent: Friday, October 30, 2015 12:14 PM
To: BDCPcomments
Cc: Michael Jackson; Jim Brobeck
Subject: AquAlliance Comments and Attachments #1
Attachments: AquAllianceCustis comments on June 2015 GCID DEIR July 29 2015.pdf; AquAllianceCustisDEIS_EIR10-yrSacValleyTransfersFinalSigned11_25_2014.pdf; AquAlliance2013WaterTransfersEA_FONSI_Final.pdf; AquAllianceCommentsEISEIR10YearTransferFinal.pdf

Mr. Wulff, AquAlliance will submit comments and attachments for the BDCP/WaterFix/Twin Tunnels SDEIS/RDEIR today. There will be multiple e-mails to accomplish this.I will let you know in the subject line when we send the final e-mail.

Thank you for handling this for us.

Barbara

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From: Barbara Vlamis <barbarav@aqualliance.net>
Sent: Friday, October 30, 2015 12:19 PM
To: BDCPcomments
Cc: Michael Jackson; Jim Brobeck
Subject: AquAlliance BDCP/WaterFix/Twin Tunnels SDEIS/RDEIR Comments and Attachments #2
Attachments: AquAllianceKDM_bdcp_comments_final2014.pdf; BelinSummaryAssurancesEmail022514.pdf; Buck_GW Durham Local GW Conditions 2102014.pdf; AquAllianceCWIN2014WaterTransfersEA_IS_Final040214.pdf; AquAllianceFedStateTransferDataJune2014.pdf; AquAllianceGCID10WellsDEIRFinalComments073015.pdf

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From: Barbara Vlamis <barbarav@aqualliance.net>
Sent: Friday, October 30, 2015 12:20 PM
To: BDCPcomments
Cc: Michael Jackson; Jim Brobeck
Subject: AquAlliance BDCP/WaterFix/Twin Tunnels SDEIS/RDEIR Comments and Attachments #3
Attachments: Coalition2010_2011WaterTransfersEA_FONSI.pdf; C-WINWaterAvailabilityAnalysisFINAL2012.pdf; BureauDraftEAGCIDtransfer031908.pdf; ButteCountyCommentsUSBR052113.pdf

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From: Barbara Vlamis <barbarav@aqualliance.net>
Sent: Friday, October 30, 2015 12:21 PM
To: BDCPcomments
Cc: Michael Jackson; Jim Brobeck
Subject: AquAlliance BDCP/WaterFix/Twin Tunnels SDEIS/RDEIR Comments and Attachments #4
Attachments: GallowayUSGSSanJoaquinValley.pdf

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From: Barbara Vlamis <barbarav@aqualliance.net>
Sent: Friday, October 30, 2015 12:24 PM
To: BDCPcomments
Cc: Michael Jackson; Jim Brobeck
Subject: AquAlliance BDCP/WaterFix/Twin Tunnels SDEIS/RDEIR Comments and Attachments #5
Attachments: Sneed_aqualliance_abstract_final2012.pdf; USGSSantaClaraValleyMiningGroundWater.pdf

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From: Barbara Vlamis <barbarav@aqualliance.net>
Sent: Friday, October 30, 2015 1:04 PM
To: BDCPcomments
Cc: Michael Jackson; Jim Brobeck
Subject: AquAlliance BDCP/WaterFix/Twin Tunnels SDEIS/RDEIR Comments and Attachments #6
Attachments: GCID NegDec021208.pdf; WCWD 2015 Neg Dec Final DRAFT.pdf; WesternCanalWaterTransferNegDec022412.pdf; USBRDraftEAGCIDtransfer031908.pdf; HaugeGroundwaterPresentationCWCFinal091411.pdf

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From: Barbara Vlamis <barbarav@aqualliance.net>
Sent: Friday, October 30, 2015 1:07 PM
To: BDCPcomments
Cc: Michael Jackson; Jim Brobeck
Subject: AquAlliance BDCP/WaterFix/Twin Tunnels SDEIS/RDEIR Comments and Attachments #7 and Final
Attachments: AquAllianceCommentsWaterFixSDEIS_RDEIR_Final103015.pdf; McManusCWCAgenda_Item_8_Attach_1_Powerpoint031914.pdf

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AQUALLIANCE
DEFENDING NORTHERN CALIFORNIA WATERS

October 30, 2015

BDCP/WaterFix Comments
Ryan Wulff, NMFS
P.O. Box 1919
Sacramento, CA 95812
Via Email to: BDCPComments@icfi.com

Subject: Comments on the Supplemental Draft Environmental Impact Statement and Partially Recirculated Draft Environmental Impact Report ("SDEIS/RDEIR")

Dear Mr. Wulff:

AquAlliance represents groundwater dependent communities, farms, and ecosystems in the northern Sacramento Valley and foothills and submits the following comments and questions regarding the Supplemental Draft Environmental Impact Statement and Partially Recirculated Draft Environmental Impact Report ("SDEIS/RDEIR") for the Water Fix/Twin Tunnels Project ("Project"). The Project has eliminated the habitat conservation plan ("HCP") pursuant to the federal Endangered Species Act ("ESA") and the natural community conservation plan ("NCCP") pursuant to the California Natural Community Conservation Planning Act for the Sacramento–San Joaquin River Delta that were requirements established in the 2009 Delta Reform Act and developed in the Delta Stewardship Council's Plan.[1] The California Department of Water Resources ("DWR"), the US Bureau of Reclamation ("Bureau") ("Agencies") and many of their contractors[2] are the proponents of the Project. DWR acts as the lead agency for the purposes of the California Environmental Quality Act ("CEQA") and the Bureau serves as the lead agency for the National Environmental Policy Act ("NEPA").

Unfortunately, the Project purpose remains the same: drain as much water as possible from the Sacramento River Watershed and the Delta to continue some of the most destructive forms of desert agriculture, urban sprawl, and industrial extraction. The SDEIS/RDEIR attempts to disclose impacts as required by CEQA and NEPA, but simultaneously obfuscates many of the direct and indirect impacts. AquAlliance seeks to bring to light some of these hidden impacts and baseline information as we did with the DEIS/EIR and to underscore the absurdity of the Twin Tunnels

[1] Water Code Section 85320 et seq. http://www.leginfo.ca.gov/cgi-bin/displaycode?section=wat&group=85001-86000&file=85320-85322

[2] " The BDCP proponents include the following state and federal water contractors under either the SWP or CVP: Alameda County Flood Control and Water Conservation District, Zone 7; Kern County Water Agency; Metropolitan Water District of Southern California; San Luis & Delta-Mendota Water Authority; Santa Clara Valley Water District; and Westlands Water District. Additional water contractors may become BDCP proponents in the future through the BDCP process." (DEIR/EIS p. 1-1)

project, which creates the infrastructure to drain the Sacramento River Watershed and the Delta of essential fresh water.

We incorporate by reference as though fully stated herein, for which we expressly request that a response to each comment contained therein be provided, all comments submitted on both sets of draft BDCP and Water Fix/Twin Tunnels NEPA and CEQA documents by our coalition of C-WIN, CSPA, and AquAlliance the multiple comment letters submitted by the Environmental Water Caucus, and all of AquAlliance's past submissions including comments by Professor Kyran Mish. We also incorporate by reference as though fully stated herein, for which we expressly request that a response to each comment contained therein be provided, for AquAlliance's previous comments on the Bureau's Environmental Assessments for the 2010/2011 Water Transfer Program, the 2013 Water Transfer Program, the 2014 Water Transfer Program, the Bureau and San Luis Delta Mendota Water Authority's Ten-Year Water Transfer Plan, the Glenn Colusa Irrigation District ("GCID") 10-Wells Project DEIR, comments created by Kit Custis for AquAlliance on the Ten-Year Water Transfer Plan, and comments by Kit Custis on the GCID 10-Wells Project DEIR. These comment letters all pertain to water transfer programs and streamflow depletion that illustrate the history of Sacramento Valley water transfers to south of the Delta, contain valuable background and impact information for the area of origin, and present AquAlliance's opposition to the water transfers that will expand under the Water Fix/Twin Tunnels Project.

A. Hydrology

1. <u>The SDEIS/RDEIR fails to adequately disclose the planned increase in water transfers from the Sacramento River Watershed to south of the Delta.</u>

If the Twin Tunnels are built as planned with the capacity to take from 9,000 to 15,000 cubic feet per second ("cfs") from the Sacramento River, they will have the capacity to drain between 38% - 63% of the Sacramento River's average annual flow of 23,490 cfs at Freeport[3] (north of the planned Twin Tunnels). As proposed, the Twin Tunnels will also increase water transfers when the infrastructure for the Project has capacity:

> Alternative 4 provides a separate cross-Delta facility with additional capacity to move transfer water from areas upstream of the Delta to export service areas and provides a longer transfer window than allowed under current regulatory constraints. In addition, the facility provides conveyance that would not be restricted by Delta reverse flow concerns or south Delta water level concerns. As a result of avoiding those restrictions, transfer water could be moved at any time of the year that capacity exists in the combined cross-Delta channels, the new cross-Delta facility, and the export pumps, depending on operational and regulatory constraints, including BDCP permit terms as discussed in Alternative 1A.[4] [This paragraph failed to remove "BDCP" from the SDEIS/RDEIR and should be corrected.]

With the obvious intention of increasing transfers under Alternative 4, it is unclear how the NEPA and CEQA effects conclusion are opposite from each other unless this is in error.

[3] USGS 2009. http://wdr.water.usgs.gov/wy2009/pdfs/11447650.2009.pdf
[4] SDEIS/RDEIR Appendix A, pp. 5-15, 5-16.

"NEPA Effects: Alternative 4 would decrease water transfer demand compared to existing conditions. Alternative 4 would ~~de~~increase conveyance capacity, enabling additional cross-Delta water transfers that could lead to increases in Delta exports when compared to No Action Alternative." (SDEIS/RDEIR 4.3.1-9) "CEQA Conclusion: Alternative 4 would increase water transfer demand compared to existing conditions. Alternative 4 would increase conveyance capacity, enabling additional cross-Delta water transfers that could lead to increases in Delta exports when compared to existing conditions." (*Id.)*The Lead Agencies have thoroughly confused the issue and must either explicitly explain or correct the differing conclusions that under NEPA effects "Alternative 4 would *decrease* water transfer demand" and under CEQA "Alternative 4 would *increase* water transfer demand" when both agree that, "Alternative 4 would increase conveyance capacity, enabling additional cross-Delta water transfers that could lead to increases in Delta exports…" (*Id*.) (emphases added)

The Project's DEIS/EIR stated that north-to-south water transfers will occur during dry years when State Water Project ("SWP") contractor allocations drop to 50 percent of Table A amounts or below or when Central Valley Project ("CVP") agricultural allocations are 40 percent or below, or when both projects' allocations are at or below these levels (p. 5-52). However, recent patterns contradict this premise in Table 5-2, which illustrates that past water transfers have regularly occurred when SWP and CVP San Joaquin Ag allocation percentages have been much higher (p. 5-51) and the SDEIS/RDEIR does nothing to correct the false narrative.

The SDEIS/RDEIR also fails to illustrate the early history of water transfers and to provide more current information through 2014. AquAlliance expands upon our previous comments providing more context and history that should be presented in another recirculated SDEIS/RDEIR.

- 1991. WY – Critical. Reported transfers amounted to 820,000 af.[5]
- 1992. WY – Critical. Reported transfers amounted to 193,000 af. (*Id.*)
- 1993. WY – Above Normal. No transfers appear to have occurred. (*Id.*)
- 1994. WY – Critical. Reported transfers amounted to 220,000 af. (*Id.*) [6]
- 2002. WY - Dry. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 172,000 af.[7]

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[5] USBR, 2008. Draft Environmental Assessment for the *Option Agreement Between Glenn-Colusa Irrigation District, Bureau of Reclamation, and the San Luis & Delta-Mendota Water Authority for 2008 Operations*. (p.17)

[6] In 1994, following seven years of low annual precipitation, the state continued a Drought Water Bank program, which allowed water districts to sell surface water and continue growing rice with ground water. Western Canal Water District and Richvale Irrigation District exported 105,000 af of river water to buyers outside of the area and substituted groundwater from the Tuscan aquifer to continue growing rice. This early experiment in the *conjunctive use* of the groundwater resources – conducted without the benefit of project specific environmental review – caused a significant and immediate adverse impact to orchards, residents, and the environment (Msangi 2006). Until the time of the 1994 water transfers, groundwater levels had dropped, but the Tuscan aquifer had sustained the normal demands of domestic and agricultural users. The water districts' extractions, however, an abnormal demand on the groundwater, lowered groundwater levels throughout the Durham and Cherokee areas of eastern Butte County (Msangi 2006). The water level fell and the water quality deteriorated in the municipal wells serving the town of Durham (Scalmanini 1995) and even shallow residential wells dried up tens of miles away from the pumping. Irrigation wells failed on several orchards in the Durham area. One farm never recovered from the loss of its crop and later entered into bankruptcy.

- 2003. WY - Above Normal. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 206,000 af. (*Id*.)
- 2004. WY - Below Normal. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 120,500 af. (*Id*.)
- 2005. WY – Above Normal. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 5 af. (*Id.)*
- 2006. WY – Wet. Settlement Contractors in the Sacramento Valley received 100% of their allocation. No transfers were reported. (*Id.)*
- 2007. WY – Dry. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 147,000 af. (*Id.)*
- 2008. WY - Critical. Settlement Contractors in the Sacramento Valley received 100% of their allocation. GCID alone planned an 85,000 af transfer[8] of an expected cumulative total from the Sacramento Valley of 360,000 af.[9] Another source revealed that the actual transfers for that year were 233,000 af.[10]
- 2009. WY-Dry. Settlement Contractors in the Sacramento Valley received 100% of their allocation. The Bureau approved a 1 year water transfer program under which a number of transfers were made. Regarding NEPA, the Bureau issued a FONSI based on an EA. DWR opined that, "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."[11] Reported transfers amounted to 274,000 af.[12]
- 2010/2011. WYs – Below Normal, Wet. Settlement contractors in the Sacramento Valley received 100% of their allocation for both years. The Bureau approved a 2 year water transfer program through an Environmental Assessment/FONSI. The *2010-2011 Water Transfer Program* sought approval for 200,000 AF of CVP related water transfers and suggested there would be a cumulative total of 395,910 af of CVP and non-CVP water.[13] The Bureau asserted in that no actual transfers were made under the *2010/2011 Water Transfer Program*, however, a Western Canal Water District Negative Declaration

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[7] Western Canal Water District, 2012. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2012 Water Transfer Program*. (p. 25)

[8] GCID, 2008. Initial Study and Proposed Negative Declaration for *Option Agreement Between Glenn-Colusa Irrigation District, San Luis & Delta-Mendota Water Authority and the United States Bureau of Reclamation for 2008 Operations, and Related Forbearance Program.*

[9] USBR, 2008. Draft Environmental Assessment for the *Option Agreement Between Glenn-Colusa Irrigation District, Bureau of Reclamation, and the San Luis & Delta-Mendota Water Authority for 2008 Operations*. (pp. 4 and 17)

[10] Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2015 Water Transfer Program*. (p. 21)

[11] DWR, 2009. 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. (p. 3)

[12] Western Canal Water District, 2012. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2012 Water Transfer Program*. (p. 25)

[13] AquAlliance, 2010. Comments on the Draft Environmental Assessment and Findings of No Significant Impact for the *2010-2011 Water Transfer Program*. (pp. 1-2)

declared that 303.000 af were transferred from the Sacramento Valley and through the Delta in 2010.[14]

- 2012. Settlement contractors in the Sacramento Valley received 100% of their allocation. The Bureau planned 2012 water transfers of 76,000 AF of CVP water all through groundwater substitution, but it is unclear if CVP transfers occurred. [15] SWP contractors and the Yuba County Water Agency ("YCWA") did transfer water and the cumulative total transferred is stated to be 190,000 af.[16]
- 2013. WY – Dry. Settlement contractors in the Sacramento Valley received 100% of their allocation. The Bureau approved a 1 year water transfer program, again issuing a FONSI based on an EA. The EA incorporated by reference the environmental analysis in the 2010-2011 EA. The *2013 Water Transfer Program* proposed the direct extraction of up to 37,505 AF of groundwater (pp. 8, 9, 11, 28, 29, 35), the indirect extraction of 92,806 AF of groundwater (p. 31), and the cumulative total of 190,906 (p. 29).[17] Reported transfers amounted to 210,000 af.[18]
- 2014. Federal Settlement Contractors in the Sacramento Valley received 75% and State Settlement Contractors received 100% of their allocations. Total maximum proposed north-to-south transfers were 378,733 af and total maximum proposed north-to-north transfers were 295,924 af.[19] Reported north-to-south transfers amounted to 198,000 af.[20]

The SDEIS/RDEIR acknowledges that less water will be available for delivery south of the Delta with the Project (SDEIS/RDEIR 4.3.1-9), preferred Alternative 4A "would increase water transfer demand compared to existing conditions," (*Id*.) and past transfers have taken place in all water year types and when SWP and CVP south-of-Delta contractors receive allocations of all kinds (DEIS/DEIR p. 5-51). In violation of NEPA and CEQA, the analysis of the significant impacts that will accompany increased transfers due to the Project is nowhere to be found.

2. <u>The SDEIS/RDEIR fails to correct the lack of disclosure of the Lead Agencies conjunctive use and water transfer plans, programs, projects, and funding.</u>

The SDEIS/RDEIR fails to reveal that the current Project is part of many more plans, programs, projects, and funding to develop groundwater in the Sacramento Valley, to develop a "conjunctive" system for the region, and to place water districts in a position to integrate the

[14] Western Canal Water District, 2012. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2012 Water Transfer Program*. (p. 25)
[15] USBR 2012. Memo to the Deputy Assistant Supervisor, Endangered Species Division, Fish and Wildlife Office, Sacramento, California regarding Section 7 Consultation.
[16] Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2015 Water Transfer Program*. (p. 21)
[17] USBR, 2013. Draft Environmental Assessment and Findings of No Significant Impact for the *2013 Water Transfers.* (p. 29)
[18] Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2015 Water Transfer Program*. (p. 21)
[19] AquAlliance, 2014. *2014 Sacramento Valley Water Transfers.* (Data from: 1) USBR, 2014 EA for *2014 Tehama-Colusa Canal Authority Water Transfers*; 2) USBR and SLDMWA, 2014. EA/Negative Declaration, *2014 San Luis & Delta Mendota Water Authority Transfers*.)
[20] Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2015 Water Transfer Program*. (p. 21)

groundwater into the state water supply. These are plans that the Bureau, together with DWR, water districts, and others have been pursuing and developing for many years. [21] [22]

An environmental impact statement should consider "[c]onnected actions." 40 C.F.R. §1508.25(a)(1). Actions are connected where they "[a]re interdependent parts of a larger action and depend on the larger action for their justification." *Id.* §1508.25(a)(1)(iii). Further, an environmental impact statement should consider "[s]imilar actions, which when viewed together with other *reasonably foreseeable or proposed agency actions*, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography." *Id.* §1508.25(a)(3). The Bureau's participation in funding, planning, attempting to execute, and frequently executing the programs, plans and projects has circumvented the requirements of NEPA. DWR's failure to conduct project or programmatic level CEQA review for water transfers and comprehensive environmental review for the *Sacramento Valley Water Management Agreement* has segmented a known, programmatic project for decades, which means that the Bureau is also failing to comply with state law as the CVPIA mandates. A list of connected actions and similar actions is found in the Cumulative Impacts section below.

3. <u>The SDEIS/RDEIR fails to adequately disclose the existing geology that is the foundation of the Sacramento River's hydrology and the Sacramento Valley's groundwater basins.</u>

The DEIS/EIR (p. 7-1) and the SDEIS/RDEIR both fail to note a significant geographic feature in the Sacramento River hydrologic region: the Cascade Range. The Cascade Range is the genesis of the Sacramento River and some of its most significant tributaries: the Pit and the McCloud Rivers. This serious omission continued throughout Chapter 7 of the DEIS/EIR and has not been corrected in the SDEIS/RDEIR. The enormous influence of the Cascade Mountain Range on not only the Sacramento River, but the geology, soils, and hydrology of the Sacramento Valley's ground water basin is also completely missing. The California Department of Conservation describes the Range thusly: "The Cascade Range, a chain of volcanic cones, extends through Washington and Oregon into California. It is dominated by Mt. Shasta, a glacier-mantled volcanic cone, rising 14,162 feet above sea level. The southern termination is Lassen Peak, which last erupted in the early 1900s. The Cascade Range is transected by deep canyons of the Pit River. The river flows through the range between these two major volcanic cones, after winding across interior Modoc Plateau on its way to the Sacramento River."[23] The Sacramento River Watershed Program provides another simple, adequate description of its namesake: "The Sacramento River is the largest river and watershed system in California (by discharge, it is the second largest U.S. river draining into the Pacific, after the Columbia River). This 27,000–square mile basin drains the eastern slopes of the Coast Range, Mount Shasta, the western slopes of the southernmost region of the Cascades, and the northern portion of the Sierra Nevada. The Sacramento River carries 31% of the state's total surface water runoff."[24]

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[21] Hauge, Carl, 2011. Presentation to the State Water Commission, September 14, 2011. pp. 11,12,14.
[22] McManus, Dan, 2014. Presentation to the State Water Commission, March 3, 2014. p. 2. "Future Water Supply Program (FWSP), Provides data collection and analysis to facilitate and support Sacramento Valley groundwater substitution transfers and conjunctive mgmt."
[23] California Department of Conservation, California Geological Survey, 2002. *California Geomorphic Provences*. [sic]
[24] http://www.sacriver.org/aboutwatershed/roadmap/sacramento-river-basin

The failure of the SDEIS/RDEIR to correct the inadequacies of the DEIS/EIR of some of the most basic geologic, geographic and hydrologic information in the EIS/EIR on which the entire Project is dependent causes the reader to wonder what else has been ignored or purposely omitted in the document.

4. The SDEIS/RDEIR fails to disclose the over appropriation of water rights in the Sacramento River Watershed

AquAlliance brought the over appropriation of water to the Lead Agencies' attention in comments for the DEIS/EIR. It appears to have been ignored, so we raise it again here. The public is presented with inadequate baseline data with which to consider the consequences of the Project. The comparison of the average unimpaired flow of the Sacramento River Watershed stacked against the claims that have been made for water is but one example. The average annual unimpaired flow in the Sacramento River basin is 21.6 MAF, but the consumptive use claims are an extraordinary 120.6 MAF![25]

5. The SDEIS/RDEIR fails to present the existing conditions of Sacramento Valley groundwater that was omitted in the DEIS/EIR and to correct inaccuracies.

There remains an absence of accurate and detailed information that describes the Sacramento Valley groundwater conditions in the SDEIS/RDEIR. The DEIS/EIR stated, "A portion of this applied water, and the remaining 13.9 MAF of runoff, is potentially available to recharge the basin and replenish groundwater storage depleted by groundwater pumping. Therefore, except during drought, the Sacramento Valley groundwater basin is "full," and groundwater levels recover to pre-irrigation season levels each spring. Historical groundwater level hydrographs suggest that even after extended droughts, groundwater levels in this basin recovered to pre-drought levels within 1 or 2 years following the return of normal rainfall quantities." (p. 7-13)

AquAlliance brought the failures in these conclusory statements to light in our previous comments hoping the Lead Agencies would provide decision-makers and the public with important factual data. Sadly, the corrections were not made in the SDEIS/RDEIR. We remind the Lead Agencies that a summary of conditions in the Durham area of Butte County find that while water levels may recover after dry to drought periods with intense use, wells aren't returning to previous levels, but moving steadily in a downward trajectory.[26] Additionally, even the Yuba River area, often touted by state and federal agencies as a successful conjunctive use program, takes 3-4 years to recover from groundwater substitution in the south sub-basin[27] although the Yuba County Water Agency analysis fails to determine how much river water is sacrificed to achieve the multi-year recharge rate.

More examples that contradict long-term predictions of "full" and "recovered" groundwater basins are found in the most current DWR maps.[28] Presented below are tables that use the DWR maps to illustrate maximum and average groundwater elevation decreases for Butte, Colusa, Glenn, and

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[25] California Water Impact Network, AquAlliance, and California Sportfishing Protection Alliance 2012. *Testimony on Water Availability Analysis for Trinity, Sacramento, and San Joaquin River Basins Tributary to the Bay-Delta Estuary*.
[26] Buck, Christina 2014. *Groundwater Conditions in Butte County*.
[27] 2012. *The Yuba Accord, GW Substitutions and the Yuba Basin*. Presentation to the Accord Technical Committee. (pp. 21, 22).
[28] http://www.water.ca.gov/groundwater/data_and_monitoring/northern_region/GroundwaterLevel/gw_level_monitoring.cfm

Tehama counties at three aquifer levels in the Sacramento Valley between the Fall of 2004 and 2014.

AquAlliance's Table 1 and Table 2 cover 11 years and illustrate what should have been shared with the public in the DEIS/EIR or the SDEIS/RDEIR. They demonstrate maximum and average groundwater elevation decreases for Butte, Colusa, Glenn, and Tehama counties, all the counties believed to overlie the Tuscan Aquifer, at three aquifer levels in the Sacramento Valley between the fall and spring of 2004 and 2014.[29] If the Bureau and DWR wanted to truly share significant shorter term data, they should disclose that maximum fall decreases for deep wells between 2013 and 2014 were 3.1 feet for Butte, 42.2 feet for Colusa, 26.9 feet for Glenn ,and 15.1 feet for Tehama – three counties significantly over 10 feet! (*Id.*)

Table 1. Fall 2004-2014 DWR Monitoring Results

County Fall '04 - '14	Deep Wells (Max decrease gwe)	Deep Wells (Avg. decrease gwe)
Butte	-12.7 (-11.4)*	-10.5 (-8.8)*
Colusa	-59.5 (-31.2)*	-59.5 (-20.4)*
Glenn	-79.7 (-60.7)*	-44.3 (-37.7)*
Tehama	-34.6 (-19.5)*	-10.9 (-6.6)*

County Fall '04 - '14	Intermediate Wells (Max decrease gwe)	Intermediate Wells (Avg. decrease gwe)
Butte	-23.0 (-21.8)*	-9.4 (-6.5)*
Colusa	-40.6 (-39.1)*	-22.6 (-16.0)*
Glenn	-57.2 (-40.2)*	-25.0 (-14.5)*
Tehama	-30.2 (-20.1)*	-12.4 (-7.9)*

County Fall '04 - '14	Shallow Wells (Max decrease gwe)	Shallow Wells (Avg. decrease gwe)
Butte	-17.6 (-13.3)*	-5.9 (-3.2)*
Colusa	-36.7 (-20.9)*	-7.6 (-3.8)*
Glenn	-53.5 (-44.4)*	-15.1 (-8.1)*
Tehama	-30.2 (-15.7)*	-9.5 (-6.6)*

* 2004-2013 monitoring results are in parentheses for comparison.

Table 2. Spring 2004-2014 DWR Monitoring Results (Monitoring from spring 2015 is still not available.)

County Spring '04 - '14	Deep Wells (Max decrease gwe)	Deep Wells (Avg. decrease gwe)
Butte	-20.8 (-10.6)	-14.6 (-8.9)
Colusa	-26.9 (-10.5)	-12.6 (-7.1)
Glenn	-49.4 (-36.2)	-29.2 (-19.9)
Tehama	-6.1 (-4.7)	-5.3 (-4.2)

[29] *Id.*

County Spring '04 - '14	Intermediate Wells (Max decrease gwe)	Intermediate Wells (Avg. decrease gwe)
Butte	-25.6 (-27.9)	-12.8 (-8.1)
Colusa	-49.9 (-24.6)	-15.4 (-7.4)
Glenn	-54.5 (-44.9)	-21.7 (-13.8)
Tehama	-16.2 (-16.5)	-7.9 (-8.8)

County Spring '04 - '14	Shallow Wells (Max decrease gwe)	Shallow Wells (Avg. decrease gwe)
Butte	-23.8 (-12.7)	-7.6 (-4.1)
Colusa	-25.3 (-11.0	-12.9 (-3.3)
Glenn	-46.5 (-23.9)	-12.6 (-8.3)
Tehama	-38.6 (-16.9)	-10.8 (-7.4)

* 2004-2013 monitoring results are in parentheses for comparison.

The DWR data clearly present a different picture of the condition of the Sacramento Valley groundwater basin over time than what is provided in the SDEIS/RDEIR. This must be corrected and considered in the NEPA and CEQA process.

6. <u>The SDEIS/RDEIR fails to correct the lack of disclosure in the DEIS/EIR of direct and indirect groundwater impacts to the Sacramento Valley that would result from expanded north-to south, cross-Delta water transfers</u>

AquAlliance commented previously about the internal BCDP communication from the Department of the Interior that indicates that the purchase of approximately 1.3 MAF of water is being planned as a means to make up for flows that would be removed from the Sacramento River by the BDCP tunnels.[30] As provided above, it is possible that the Twin Tunnels may extract almost two-thirds of the average annual flow from the Sacramento River, which is what creates the need for the 1.3 MAF. The source of the additional water that is integral to the Project was not disclosed or analyzed in the DEIS/EIR nor in the SDEIS'RDEIR. Furthermore, the Lead agencies improperly conclude that, "The analysis of any potential upstream impacts from transfers is not a part of this EIR/EIS and must be covered pursuant to separate laws and regulations once the specific transfer has been proposed." (DEIS/EIR p. 5-77)
Neither CEQA nor NEPA permit this approach of segmenting and piecemealing review of the whole of a project. As noted above, water transfers are expected to increase and are an integral part of the Project and groundwater substitution transfers are a significant piece of water transfer practices, plans, and programs either directly or indirectly through reservoir reoperation. The deferral to disclose the amount of water that could be transferred, the source of the water, and the impacts from transferring water from the Sacramento Valley are absent. In addition, the SDEIS/RDEIR does not reveal that the current Project is part of multi-decade planning and implementation process to develop groundwater in the Sacramento Valley, to develop a "conjunctive" system for the Sacramento Valley, and to integrate Sacramento Valley groundwater into the state's water supply.

With the Sacramento Valley groundwater an intended target, this must be disclosed and analyzed in another re-circulated Draft EIS/EIR.

[30] Belin, Lety Summary of Assurances Email, dated 2/25/13.

7. The Project Description does Not Include all Project Components.

i. The Bureau Fails to Disclose Significant Past, Present, and Future Streamflow Depletion

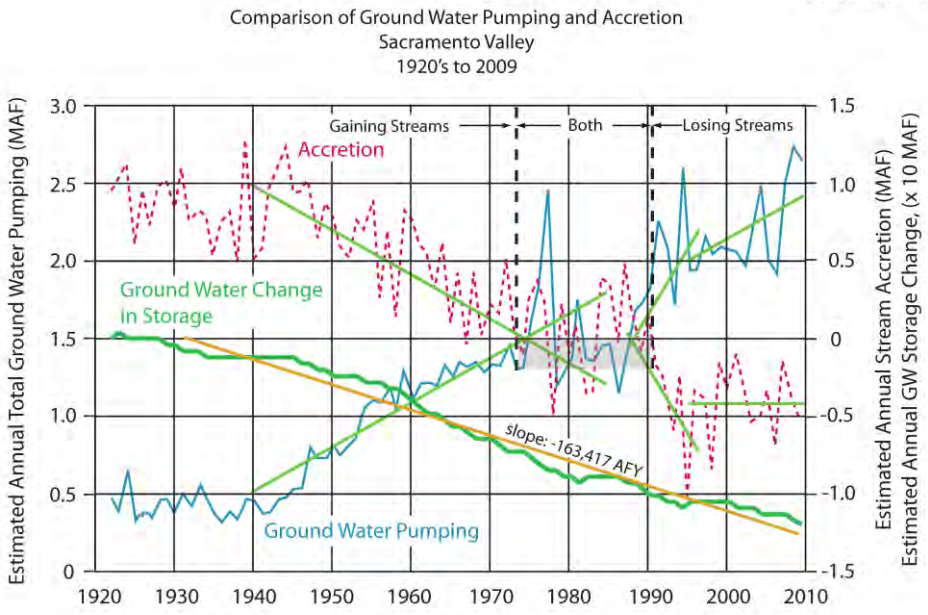
Streamflow depletion is not mentioned at all in the SDEIS/REDIR and it is mentioned sparingly in the DEIS/EIR:

1) A citation on page 7-120.
2) The same citation on page 34-16.
3) A description of groundwater substitution transfers on page 1E-3.
   a) "The quantity of surface water available is based on the quantity of groundwater actually pumped less any streamflow depletion losses."
   b) "Additional groundwater pumping will, to some extent, have an effect on the surface water supply, referred to as streamflow depletion. The impacts of the transfer on streamflow can continue to occur long after the transfer has been completed. If the additional streamflow depletion occurs at a time when excess flow is available, downstream users are not affected. However, if the depletion occurs at a time when other downstream users could divert that water, the transfer could have an impact on other legal users."
   c) "Accounting for the impact of the transfer on streamflow is essential to determining the amount of real water available for transfer and to avoid injury to downstream water users. The amount and timing of the impacts, however, cannot be directly measured but can be estimated through the use of mathematical models. Although the work required to accurately assess the appropriate streamflow depletion factor for a particular transfer can be time-consuming and costly, the assessment of an appropriate streamflow depletion factor is necessary to protect other legal users of water."
4) A more in-depth discussion of groundwater substitution transfers on page 1E-8.
   a) "Precipitation and streamflow are the source of recharge for groundwater basins. A change in the amount of groundwater pumping affects both the groundwater and surface water resources. The timing and magnitude of the impacts to the surface water supply varies from place to place depending on a number of factors, including geology, hydrology, regional groundwater use, and depth and construction of the wells among others. Groundwater pumping will result in some level of streamflow depletion, the effect of which may extend well beyond the area from which transfer is made, depending on the specifics of the transfer. It is important that the impacts to streamflow from increased groundwater pumping are accounted for in the transfer to prevent injury to other legal users of water. Streamflow depletion cannot be directly measured and must be estimated using a technical analysis including groundwater modeling considering the specific conditions of the transfer and hydrogeology."
5) A description of groundwater substitution transfers on page 1E-10. "The amount of water available for transfer is determined by metering the quantity of water pumped and applying a streamflow depletion factor based on an analysis of the specific wells and geology of the groundwater basin."
6) In section "Potential Quantities of Upstream-of-Delta Water for Transfer" in Appendix 5C, the following is found:

a) "Groundwater substitution transfers could approach as much as 400,000 acre-feet in any given year prior to allowance for impacts on streamflows. Groundwater substitution supplies are generally subject to a correction factor to adjust for streamflow depletion effects of water transfers in the current year. As the groundwater basins of the Sacramento Valley are pumped, there will be gradual effects on streamflow as the basins recharge over time. In the past few years, an allowance of 12 percent has been assumed as the amount of impact on Delta inflow in the current year." (p. 5C-23)

The absence of any meaningful disclosure of past, present, and future groundwater and streamflow depletion in either the DEIS/EIR or the SDEIS/RDEIR underscores once again the completely vacuous attempts by the Lead Agencies to meet NEPA and CEQA requirements. AquAlliance presents a figure that is a comprehensive picture of the destructive past and present impacts to the groundwater and streams of the Sacramento River that should have been revealed in the NEPA and CEQA documents for this project. It encapsulates all that the Lead Agencies seek to obfuscate from the public and policy makers.

Exhibit 10.7



Changes in Accretion, Ground Water Pumping and Ground Water Storage

1. 1920's; ~+953 TAFY accretion with ~+451 TAFY gw pumping = ~ 1,400 TAFY loss in gw storage
2. Late 1960's to Early 1970's; first zero accretion occurs with ~1,300 to ~1,500 TAFY gw pumping
3. 1920' to 2009: ~ +953 TAFY accretion to ~ - 445 TAFY accretion = ~ 1,400 TAFY difference
4. Slope of Accretion 1940 to mid-1970's ~ -27,000 AFY; late 1980's to mid-1990's ~ - 85,000 AFY; ratio ~ 3X
5. 1940 to mid-1970s' and late 1980's to mid 1990's slopes of ground water pumping increases are mirror images of slopes of accretion losses
6. Mid -1990's to 2010 groundwater pumping slope is similar to 1940 to mid-1970's, but accretion slope is flat.
7. Ground water change in storage ~ 12 to 14 MAF 1922 to 2009 (Figure 35, C2VSim User's Manual v. 3.02-CG, v. R374, June 2013, and Table 10 C2VSim Final Report 3.02-CG, v. R374, June 2013)

The figure was created for AquAlliance for comments on the DEIS/EIR for the 10-Year Water Transfer Program in 2014 by Kit Custis who explains:

Two recent reports on the condition of groundwater in the Sacramento Valley are provided by the Northern California Water Association (NCWA, 2014a and 2014b). Tables 3-6, 3-7, and 3-8 in the NCWA technical supplement report (2014b; Exhibits 10.5a to 10.5c) provide water balance information for the Sacramento Valley for the same three decades as Brush and others (2013a). The NCWA tables separate the water balance elements into three types, land uses (Table 3-6), streams and rivers (Table 3-7), and groundwater (Table 3-8). The values of the change in groundwater storage given in Table 3-8 are similar to those given by

Brush and others (2013a). The NCWA technical supplement report (2014b) also provides additional information on the 1922 to 2009 water balance through the use of graphs and bar charts. Figures 3-22 and 3-24 (Exhibits 10.6c and 10.6d) provide graphs of simulated estimates of annual groundwater pumping in the Sacramento Valley and the annual stream accretion. Positive stream accretion occurs when groundwater discharges to surface water, negative when groundwater is recharged. Other graphs include simulated deep percolation, Figures 3-26 and 3-27 (Exhibits 10.6e and 10.6f), annual diversions, Figures 3-19 and 3-20 (Exhibits 10.6a and 10.6b), and relative percentages of surface water to groundwater supplies, Figure 3-29 (10.6g).

The NCWA technical supplement report (2014b) notes in Sections 3.8 and 3.8.4 that negative changes in groundwater storage

> *... suggest that the groundwater basin is under stress and experiencing overdraft in some locations. Review of the Sacramento Valley water balance, as characterized based on C2VSim R374 and summarized in Tables 3-6 through 3-8 reveals substantial changes in water balance parameters over time that affect overall groundwater conditions. ... Over time, it appears that losses from surface streams have increased as a result of declining groundwater levels. The declining levels result from increased demand for groundwater as a source of supply without corresponding increases in groundwater recharge. (page 41) A contributing factor to the decrease in accretions to rivers and streams over the last 90 years is that deep percolation of surface water supplies (and other forms of recharge) has not increased in a manner that offsets increased groundwater pumping. (page 48)*

The simulated groundwater pumping graph in NCWA Figure 3-22 and stream accretion graph in NCWA Figure 3-24 were combined into one graph by scaling and adjusting their axes (Exhibits 10.7). The vertical scales of these two graphs were adjusted so that a zero value of stream accretion aligned with 1.5 million acre-feet (MAF) of annual groundwater pumping. This alignment was done to reflect the fact that in the early 1920s, groundwater pumping was approximately 0.5 MAF per year (MAFY) while stream accretion was approximately 1.0 MAFY. As shown in the combined graph, stream accretion generally decreases at approximately the same rate as groundwater pumping increases. Thus, at a point of no appreciable groundwater pumping, pre-1920s, the total long-term average annual stream accretion was likely 1.5 MAF, based on the C2VSim simulations.

Drawn on top of the stream depletion and groundwater pumping graphs are several visually fit, straight trend lines. These lines, which run from 1940 to the mid-1970s and the late 1980s to mid-1990s, are mirror images reflected around the horizontal 0 accretion axis. Information provided at the bottom of the composite graph was taken from NCWA Tables 3-7 and 3-8 (Exhibits 10.5b and 10.5c). The slope of the trend line from 1940 to the mid- 1970s is approximately (+-)27,000 AFY, and (+-)85,000 AFY in the late 1980s to the mid- 1990s; a 3-fold increase in slope. After the mid-1990s the slope of groundwater pumping flattens to be similar to that of the 1940s–mid-1970s, while the stream depletion line became almost flat, ie., no change in rate of accretion. The reason for the stream depletion rate being flat is unknown, but there are several factors that could contribute to a fixed rate of stream accretion.

First, after depleting 1.5 MAFY from the Sacramento Valley streams, the surface waters may not be able to provide much more, at least no increase to match the pumping. Second, this may also be a consequence of the model design because the number of streams simulated was limited. Third, the model's grid may not extend out far enough to encompass all of the streams that contribute to groundwater recharge. More information on the areas of where streams gain and lose in the Sacramento Valley is needed to determine if there are any sections of stream, gaining or losing, that might still have the ability to interact at a variable rate in the future, ie., during and after the 10-year groundwater substitution transfer project.

A third graph is drawn on the composite accretion-pumping graph in Exhibit 10.7 that shows the C2VSim simulated cumulative change in groundwater storage for the Sacramento Valley from 1922 to 2009. This graph was taken from Figure 35 of Brush and others, 2013b (Exhibit 10.4). A straight trend line with a negative slope of approximately -163,417 AFY is drawn on top of the third graph, which is the value for average annual change in storage from 1922 to 2009 given in Table 10 of Brush and others (2013a; Exhibit 6.3a) for the seven subregions of the Sacramento Valley. The selected graph of the cumulative change in groundwater storage is one of three available.

The graph of cumulative change in groundwater storage for the Sacramento Valley in Figure 35 differs from the graph in Figure 83 in Brush and others (2013a; Exhibit 10.3) and in Figure B9 of Faunt (ed., 2009; Exhibit 10.2a). Both of Figure 83 and Figure B9 show a gain in groundwater storage with their Sacramento Valley graphs lying generally above the horizontal line of zero change in storage. The cumulative change in groundwater storage graph from Figure 35 (Exhibit 10.4) was selected because:

- *its slope is a close match for the average annual change in storage from 1922 to 2009 of -163,417 AFY given in Table 10,*
- *the values for change in groundwater storage in the three selected decades are all negative (Table 3-8, NCWA, 2014b), which the other two graphs don't clearly indicate,*
- *the calculation of average annual change in groundwater storage from 1962 to 2003 shown in Table B3 and Figures B10-A and B10-B of Faunt (ed., 2009) are negative, which conflicts with Figures B9 and 83, and*
- *change in DWR groundwater elevation maps from spring 2004 to spring 2014 (Exhibit 3.1, 3.2 and 3.3) suggest that there are significant regions of the Sacramento Valley that have lost groundwater storage, which suggests that the current condition is one of a loss in storage rather than a gain.*

Additional review and analysis of the changes in groundwater storage in the Sacramento Valley is needed. Any additional review of changes in groundwater storage in the Sacramento Valley should consider the recent changes in groundwater elevations such as those shown in DWR (2014b) for WYs 2004 to 2014, and Figures 2-4 and 2-5 of NCWA, 2014b (Exhibit 10.8 and 10.9), as well as other studies such as the support documents for the regional IRWMPs. [Supporting material found in AquAlliance's Tables 1 and 2 above.]

The deficiencies in the SDEIS/RDEIR and DEIS/EIR strike at the core of our critique, which views the CVP and the SWP as once-upon-a-time operating within the law, albeit with more water on paper than could ever be available, until the limits of hydrology caused the Agencies and some

of their contractors to look for tools to exploit the law – and the hydrology - of California. The CVP and SWP have extended water far from the areas of origin for agricultural, urban, and industrial uses. In so doing, particularly with paper water,[31] the state and federal governments have facilitated a destructively unrealistic demand for water. Ever willing to destroy natural systems to meet demand for profit, the San Joaquin River dried up and subsidence caused by groundwater depletion in the San Joaquin Valley is even cracking water conveyance facilities.[32] Added to this are conjunctive use water sales and programs where the Agencies facilitate and their contractors implement river water sales and pump groundwater to continue crop production. The continual, long-term groundwater overdraft in the San Joaquin Valley, the expansion of new permanent crops in both the San Joaquin and Sacramento valleys, and groundwater substitution transfers by CVP and SWP contractors *all* cause streamflow depletion (also see Groundwater Section below). Failing to disclose how the CVP and SWP have historically caused streamflow depletion is a major omission that must be corrected and included in a recirculated DEIS/EIR.

8. <u>The SDIE/RDEIR fails to correct deficiencies in the DEIS/EIR that vastly understated the extent of groundwater depletion in the San Joaquin Valley.</u>

In regards to the San Joaquin groundwater basin, the DEIS/DEIR stated that, "Long-term groundwater production throughout this basin has lowered groundwater levels beyond what natural recharge can replenish." (p. 7-4) It is no surprise that the relentless extraction of groundwater in the San Joaquin Valley has halted natural recharge, but this mild under-statement of fact masks the tremendous devastation that has occurred there. "Mining" would provide a more accurate depiction of what has transpired over 80+ years instead of "production." The USGS exposes this form of groundwater exploitation in the San Joaquin and Santa Clara Valleys (1999) in Circular 1182 entitled Part I, "Mining Ground Water." Current research by Michelle Sneed expands on the impacts from groundwater mining in the San Joaquin by disclosing the extent of historic and current subsidence levels[33] as does work by Devin Galloway and Francis S. Riley.[34]

Without explanation or apology, the DEIS/EIR omitted current and historic analysis, mentioned "overall subsidence" in the Mendota area of 28 feet (without a citation or timeframe), and then recounted older research: "Most San Joaquin Valley subsidence is thought to have been caused primarily by deep aquifer system pumping during the 1950s and 1960s, but is considered to have largely abated since 1974 because of the development of more reliable agricultural surface water supplies from the Delta-Mendota Canal and Friant-Kern Canal (U.S. Geological Survey 1999)."

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[31] C-WIN, et al, 2012. Testimony on Water Availability Analysis for Trinity, Sacramento, and San Joaquin River Basins Tributary to the Bay--Delta Estuary.

[32] Sneed, et al., 2012. Abstract: *Renewed Rapid Subsidence in the San Joaquin Valley, California*.
"The location and magnitude of land subsidence during 2006–10 in parts of the SJV were determined by using an integration of Interferometric Synthetic Aperture Radar (InSAR), Global Positioning System (GPS), and borehole extensometer techniques. Results of the InSAR measurements indicate that a 3,200-km^2 area was affected by at least 20 mm of subsidence during 2008–10, with a localized maximum subsidence of at least 540 mm. Furthermore, InSAR results indicate subsidence rates doubled during 2008. Results of a comparison of GPS, extensometer, and groundwater-level data suggest that most of the compaction occurred in the deep aquifer system, that the critical head in some parts of the deep system was exceeded in 2008, and that the subsidence measured during 2008–10 was largely permanent." Conference presentation at *Water for Seven Generations: Will California Prepare For It?*, Chico, CA.

[33] Sneed, Michelle et al. 2013. *Land Subsidence along the Delta-Mendota Canal in the Northern Part of the San Joaquin Valley, California*. http://pubs.usgs.gov/sir/2013/5142/

[34] Galloway, Devin and Francis S. Riley, unknown date. *San Joaquin Valley: Largest human alteration of the Earth's surface.*

The absence of current scientific research regarding groundwater mining and subsidence in the DEIS/EIR and the failure to correct it in the SDEIS/RDEIR leaves the documents exceedingly deficient under CEQA and NEPA and the agencies exposed to charges of incompetence.

B. Cumulative Impacts

The Ninth Circuit Court makes clear that NEPA mandates "a useful analysis of the cumulative impacts of past, present and future projects." *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 810 (9th Cir. 1999). "Detail is required in describing the cumulative effects of a proposed action with other proposed actions." *Id.* CEQA further states that assessment of the project's incremental effects must be "viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines § 15065(a)(3).) "[A] cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." (CEQA Guidelines § 15065(a)(3).)

An EIR must discuss significant cumulative impacts. CEQA Guidelines §15130(a). Cumulative impacts are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. CEQA Guidelines § 15355(a). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects. CEQA Guidelines § 15355(a). A legally adequate cumulative impacts analysis views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project at hand. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. CEQA Guidelines § 15355(b). The cumulative impacts concept recognizes that "[t]he full environmental impact of a proposed . . . action cannot be gauged in a vacuum." *Whitman v. Board of Supervisors* (1979) 88 Cal. App. 3d 397, 408 (internal quotation omitted).

In assessing the significance of a project's impact, the Bureau must consider "[c]umulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement." 40 C.F.R. §1508.25(a)(2). A "cumulative impact" includes "the impact on the environment which results from the incremental impact of the action when added to *other past, present and reasonably foreseeable future actions* regardless of what agency (Federal or non-Federal) or person undertakes such other actions." *Id.* §1508.7. The regulations warn that "[s]ignificance cannot be avoided by terming an action temporary or by breaking it down into small component parts." *Id.* §1508.27(b)(7).

An environmental impact statement should also consider "[c]onnected actions." *Id.* §1508.25(a)(1). Actions are connected where they "[a]re interdependent parts of a larger action and depend on the larger action for their justification." *Id.* §1508.25(a)(1)(iii). Further, an environmental impact statement should consider "[s]imilar actions, which when viewed together with other *reasonably foreseeable or proposed agency actions*, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography." *Id.* §1508.25(a)(3) (emphasis added).

As discussed above, the Project is dependent on the hydrology of the Delta watershed to implement the Draft Plan. We pointed out in comments on the DEIS/EIR and again here because

the issue hasn't been corrected in the SDEIS/RDEIR, that the cumulative impact analysis is abysmal as it fails to consider other past, present and reasonably foreseeable future actions in the Delta watersheds by deferring analysis to a future day.

AquAlliance again submits a partial list of Sacramento River Watershed programs, plans, and projects in which the agencies have participated or funded, that, at a minimum, should have been presented in the DEIS/EIR or corrected in the SDEIS/RDEIR for cumulative impact discussion, and better yet, analyzed to comply with CEQA and NEPA:

- In 2009, the Bureau approved a 1 year water transfer program under which a number of transfers were made. Regarding NEPA, the Bureau issued a FONSI based on an EA.
- In 2010, the Bureau approved a 2 year water transfer program (for 2010 and 2011). No actual transfers were made under this approval. Regarding NEPA, the Bureau again issued a FONSI based on an EA.
- The Bureau planned 2012 water transfers of 76,000 AF of CVP water all through groundwater substitution.[35]
- In 2013, the Bureau approved a 1 year water transfer program, again issuing a FONSI based on an EA. The EA incorporated by reference the environmental analysis in the 2010-2011 EA.
- The Bureau and SLDMWA's 2014 Water Transfer Program proposed transferring up to 91,313 AF under current hydrologic conditions and up to 195,126 under improved conditions. This was straight forward, however, when attempting to determine how much water may come from fallowing or groundwater substitution during two different time periods, April-June and July-September, the reader was left to guess.[36]

These closely related projects impact the same resources, are not accounted for in the environmental baseline, and must be considered as cumulative impacts.

Yuba Accord

The relationship between the Projects and the Lower Yuba River Accord is not found in the DEIS, but is illuminated in a 2013 Environmental Assessment. "The Lower Yuba River Accord (Yuba Accord) provides supplemental dry year water supplies to state and Federal water contractors under a Water Purchase Agreement between the Yuba County Water Agency and the California Department of Water Resources (DWR). Subsequent to the execution of the Yuba Accord Water Purchase Agreement, DWR and The San Luis & Delta- Mendota Water Authority (Authority) entered into an agreement for the supply and conveyance of Yuba Accord water, to benefit nine of

[35] USBR 2012. Memo to the Deputy Assistant Supervisor, Endangered Species Division, Fish and Wildlife Office, Sacramento, California regarding Section 7 Consultation.

[36] The 2014 Water Transfer Program's EA/MND was deficient in presenting accurate transfer numbers and types of transfers. The numbers in the "totals" row of Table 2-2 presumably should add up to 91,313. Instead, they add up to 110, 789. The numbers in the "totals" row of Table 2-3 presumably should add up to 195,126. Instead, they add up to 249,997. Both Tables 2-2 and 2-3 have a footnote stating: "These totals cannot be added together. Agencies could make water available through groundwater substitution, cropland idling, or a combination of the two; however, they will not make the full quantity available through both methods. Table 2-1 reflects the total upper limit for each agency."

the Authority's member districts (Member Districts) that are SOD [south of Delta] CVP water service contractors." [37]

In a Fact Sheet produced by the Bureau, it provides some numerical context and more of DWR's involvement by stating, "Under the Lower Yuba River Accord, up to 70,000 acre-feet can be purchased by SLDMWA members annually from DWR. This water must be conveyed through the federal and/or state pumping plants in coordination with Reclamation and DWR. Because of conveyance losses, the amount of Yuba Accord water delivered to SLDMWA members is reduced by approximately 25 percent to approximately 52,500 acre-feet. Although Reclamation is not a signatory to the Yuba Accord, water conveyed to CVP contractors is treated as if it were Project water." [38] However, the Yuba County Water Agency ("YCWA") may transfer up to 200,000 under Corrected Order WR 2008-0014 for Long-Term Transfer and, "In any year, up to 120,000 af of the potential 200,000 af transfer total may consist of groundwater substitution. (YCWA-1, Appendix B, p. B-97.)." [39]

Potential cumulative impacts from the Project and the YCWA Long-Term Transfer Program from 2008 - 2025 are not disclosed or analyzed in the SDEIS/RDEIR or the DEIS/EIR. Moreover, the *2015-2024 Water Transfer Program* could transfer up to 600,000 AF per year through the same period that the YCWA Long-Term Transfers are potentially sending 200,000 AF into and south of the Delta. How these two projects operate simultaneously could have a very significant impact on the environment and economy of the Feather River and Yuba River's watersheds and counties as well as the Delta. The involvement of Browns Valley Irrigation District and Cordua Irrigation District in both long-term programs must also be considered. This must be analyzed and presented to the public in a revised DEIS/EIR.

Also not available in the DEIS/EIR or corrected in the SDEIS/RDEIR is disclosure of any issues associated with the YCWA transfers that have usually been touted as a model of success. The YCWA transfers have encountered troubling trends for over a decade that, according to the draft Environmental Water Account ("EWA") EIS/EIR, are mitigated by deepening domestic wells (2003 p. 6-81). While digging deeper wells is at least a response to an impact, it hardly serves as a proactive measure to avoid impacts. Additional information finds that it may take 3-4 years to recover from groundwater substitution in the south sub-basin[40] although YCWA's own analysis fails to determine how much river water is sacrificed to achieve the multi-year recharge rate. None of this is found in the EWA EIS/EIR. What is found in the EWA EIS/EIR is that even the inadequate SACFEM2013 modeling reveals that it could take more than six years in the Cordua ID area to recover from multi-year transfer events, although recovery is not defined (pp, 3.3-69 to 3.3-70). This is a very significant impact that isn't addressed individually or cumulatively.

1. <u>The Lead Agencies Have Failed to Consider the Cumulative Impacts of Other Groundwater Development and Surface Water Diversions Affecting the Sacramento Valley</u>

[37] Bureau of Reclamation, 2013. *Storage, Conveyance, or Exchange of Yuba Accord Water in Federal Facilities for South of Delta Central Valley Project Contractors*.
[38] Bureau of Reclamation, 2013. *Central Valley Project (CVP) Water Transfer Program Fact Sheet*.
[39] State Water Resources Control Board, 2008. ORDER WR 2008 - 0025
[40] 2012. *The Yuba Accord, GW Substitutions and the Yuba Basin*. Presentation to the Accord Technical Committee. (pp. 21, 22).

In addition to the improper segmentation evident in the DEIS/EIR and continuing through the SDEIS/RDEIR, the assessment of environmental impacts is further deficient because the Bureau has failed to consider the cumulative impacts of area of origin extraction when taken in conjunction with other projects proposed for the development of groundwater and surface water.

i. General Plans

The General Plans of the counties and cities in the Sacramento Valley must be considered as well as the agricultural crop and land use changes that have taken and are taking place. Lastly, we must emphasize again that existing conditions in the Sacramento River Watershed, that is so crucial to California's population, economy, and environment, and therefore the Project, must be more accurately understood and described, so that impacts may be more accurately assessed from the Project.

The DEIS/EIR and SDEIS/RDEIR also fail to reveal many more programs, plans and projects to develop water transfers in the Sacramento Valley, to develop a "conjunctive" system for the region, and to place water districts in a position to integrate the groundwater into the state water supply. BDCP, now the Water Fix or Twin Tunnels Project, is one of those plans that the Lead Agencies, water districts, and others have been pursuing and developing for many years.

ii. Biggs-West Gridley

The *Biggs-West Gridley Water District Gray Lodge Wildlife Area Water Supply* Project, a Bureau project, is not mentioned anywhere in the Vegetation and Wildlife or Cumulative Impacts sections. [41] This water supply project is located in southern Butte County where Western Canal WD, Richvale ID, Biggs-West Gridley WD, and Butte Water District actively sell water on a regular basis, yet impacts to GGS from this project are not disclosed. This is a serious omission that must be remedied in a recirculated DEISEIR.

iii. Other Projects

a) Court settlement discussions between the Bureau and Westlands Water District over provisions of drainage service. Case # CV-F-88-634-LJO/DLB will further strain the already over allocated Central Valley Project with the following conditions:

- A permanent CVP contract for 890,000 acre-feet of water a year exempt from acreage limitations.
- Minimal land retirement consisting of 100,000 acres; the amount of land Westlands claims it has already retired (115,000 acres) will be credited to this final figure. Worse, the Obama administration has stated it will be satisfied with 100,000 acres of "permanent" land retirement.
- Forgiveness of nearly $400 million owed by Westlands to the federal government for capital repayment of Central Valley Project debt.

b) Five-Year Warren Act Contracts for Conveyance of Groundwater in the Tehama-Colusa and Corning Canals – Contract Years 2013 through 2017 (March 1, 2013, through February 28, 2018).

[41] http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=15381

c) Additional past, current, and future projects with cumulative impacts upon groundwater and surface water resources affected by the Project:

- The DWR Dry Year Purchase Agreement for Yuba County Water Agency water transfers from 2015-2025 to SLDMWA.[42]
- GCID's *Stony Creek Fan Aquifer Performance Testing Plan* to install seven production wells in 2009 to extract 26,530 AF of groundwater as an experiment that was subject to litigation due to GCID's use of CEQAs exemption for research.
- Installation of numerous production wells that are used to facilitate water transfers in the area of origin, many with the use of public funds such as Butte Water District,[43] GCID, Anderson Cottonwood Irrigation District,[44] and Yuba County Water Authority [45] among others.
- GCID's 10-Wells Project proposes to install five new production wells and continue operating five additional production wells during dry and critically dry years for 8.5 months from approximately February 15-Marh 15 and April 1-November 15. The annual, maximum, cumulative total pumping is 28,500 af and is more water than the annual use of the Chico district of California Water Service Company that serves over 100,000 people.[46]

C. Conclusion

The SDEIS/RDEIR and DEIS/EIR are seriously deficient as noted here, in the coalition comments of C-WIN, CSPA, and AquAlliance, CSPA comments, and EWC comments. AquAlliance requests that you incorporate these comments into another re-circulated DEIS/EIR.

Sincerely,

B. Vlamis

Barbara Vlamis
AquAlliance's Executive Director

[42] SLDMWA Resolution # 2014 386
http://www.sldmwa.org/OHTDocs/pdf_documents/Meetings/Board/Prepacket/2014_1106_Board_PrePacket.pdf

[43] Prop 13. Ground water storage program: 2003-2004 Develop two production wells and a monitoring program to track changes in ground.

[44] "The ACID Groundwater Production Element Project includes the installation of two groundwater wells to supplement existing district surface water and groundwater supplies."
http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=8081

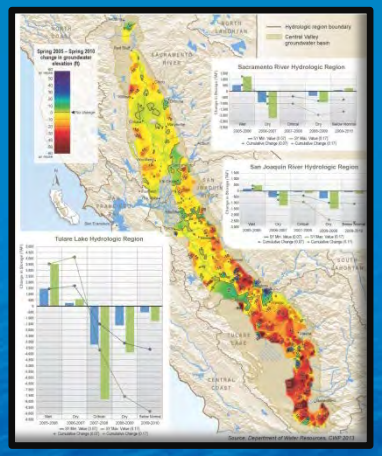
[45] Prop 13. Ground water storage program 2000-2001: Install eight wells in the Yuba-South Basin to improve water supply reliability for in-basin needs and provide greater flexibility in the operation of the surface water management facilities. $1,500,00;

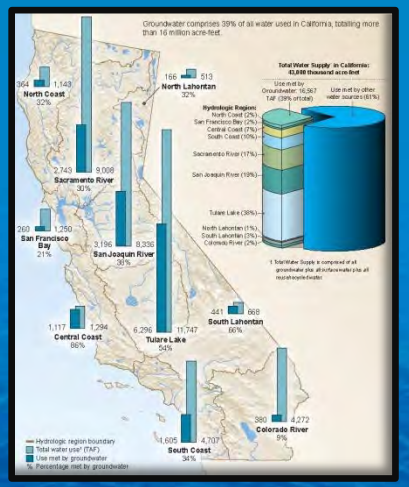
[46] California Water Service Company *2010 Urban Water Management Plan Chico-Hamilton City District*, p. 32.

DEPARTMENT OF WATER RESOURCES

RECIRC2575.

How are DWR's current groundwater efforts in alignment with the Governor's Water Action Plan and DWR's Drought Management structure?





California Water Commission Meeting

March 19, 2014

Dan McManus

dan.mcmanus@water.ca.gov

(530) 529-7373

DWR's Groundwater Programs and Functional Organizational Structure

RECIRC2575.

DWR Mission

To manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments

DWR Vision for Sustainable Groundwater Management

DWR promotes sustainable groundwater management at the local and regional level through technical guidance, financial assistance, interagency coordination, groundwater monitoring, basin assessments, and advancement of integrated regional water management.

IRWM: Advance IRWM to Promote Sustainable Groundwater Management

DWR's Groundwater Programs and General Functions

California Water Plan (CWP)

Provides a strategic plan for California's water resources through data analysis and reporting, agency coordination, and stakeholder input

California Statewide Groundwater Elevation and Monitoring (CASGEM)

GW Elevation Data Management	Technical Assistance and Guidance	Bulletin 118 Updates & Basin Assessments
Provides voluntary data collection and reporting program that enables statewide analysis of California's GW conditions in alluvial groundwater basins	Provides local and statewide technical assistance & guidance for sustainable GWM through data analysis, Basin Prioritization, Improved Standards, Methods, and BMPs	Provides a detailed summary and evaluation of alluvial aquifers and groundwater data to optimize and guide sustainable GWM

Financial & Facilitation Assistance

Advances IRWM through funding support for technical, financial, and facilitation services to local agencies through planning, studies, and projects

Future Water Supply Program (FWSP)

Provides data collection and analysis to facilitate and support Sacramento Valley groundwater substitution transfers and conjunctive mgmt.

Long-Term Baseline Data Collection and Management

Groundwater Elevations, Water Quality, Streamflow, Well Completion Reports, Land Subsidence, Land & Water Use, and Climate Data

DWR Groundwater-Related Drought Activities

RECIRC2575.

Governor's Drought Proclamation

Action #11

The Department of Water Resources will evaluate changing groundwater levels, land subsidence, and agricultural land fallowing as the drought persists and will provide a public update by April 30 that identifies groundwater basins with water shortages and details gaps in groundwater monitoring.

Action #12

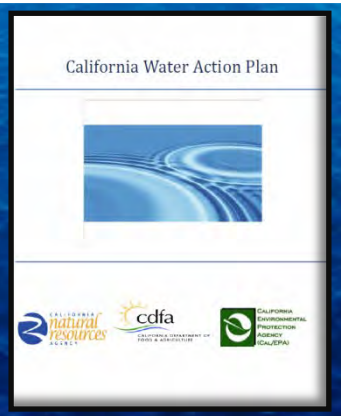
The Department of Water Resources will work with counties to help ensure that well drillers submit required groundwater well logs for newly constructed and deepened wells in a timely manner and the Office of Emergency Services will work with local authorities to enable early notice of areas experiencing problems with residential groundwater sources.

California Water Action Plan

More Reliable Water Supplies	Restoration of Species & Habitat	Sustainably Managed Water Resources

Action #6: Expand Water Storage Capacity and Improve Groundwater Management

a. Provide Essential Data to Enable Sustainable GWM
b. Support Funding Partnerships for Storage Projects
c. Update Bulletin 118, California's Groundwater Plan
d. Improve Sustainable Groundwater Management
e. Support Distributed Groundwater Storage
f. Increase Statewide Groundwater Recharge
g. Accelerate Clean-up of Contaminated Groundwater and Prevent Future Contamination

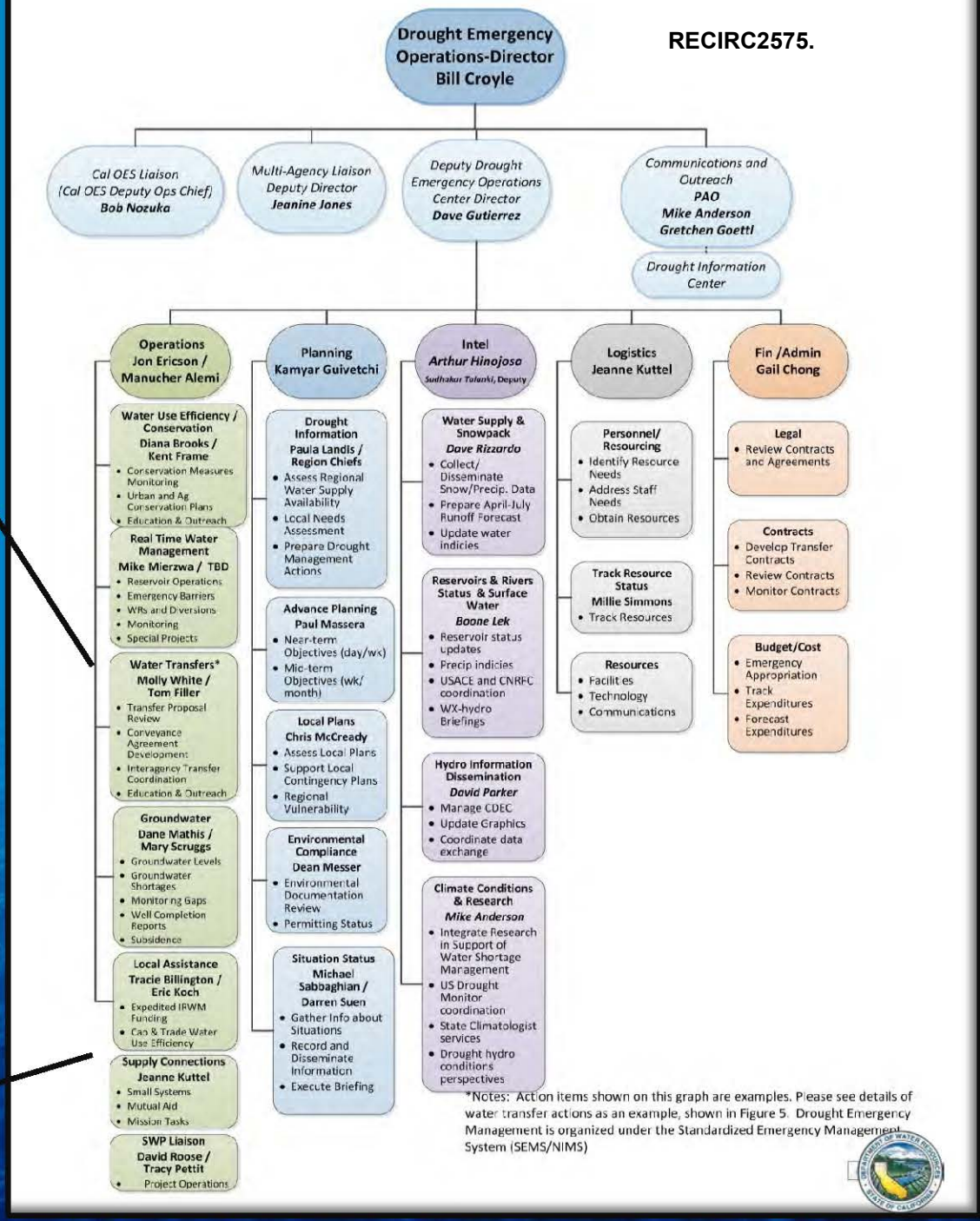


DWR Emergency Drought Organizational Structure

Water Transfers*
Molly White / Tom Filler
- Transfer Proposal Review
- Conveyance Agreement Development
- Interagency Transfer Coordination
- Education & Outreach

Groundwater
Dane Mathis / Mary Scruggs
- Groundwater Levels
- Groundwater Shortages
- Monitoring Gaps
- Well Completion Reports
- Subsidence

Local Assistance
Tracie Billington / Eric Koch
- Expedited IRWM Funding
- Cap & Trade Water Use Efficiency



DWR Groundwater-Related Drought Actions

REGIRC2575.

Governor's Drought Proclamation

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DWR Drought Groundwater Team Activities

Action #11

1. Changing GW Levels: (Central Valley)
   a) Change in GW Elevations…Dot Maps
      - Fall 2004 – Fall 2013
      - Fall 2012 – Fall 2013
   b) Gaps in GW Monitoring
2. Identify Water Short Basins
   a) GW Basin with high reliance on GW
   b) Updated GW Use by GW Basin
   c) Wells that have been Deepened since 2010
   d) Known impacts to local supplies
3. Land Subsidence Update

Action #12

1. Identified all Current C-57 Drillers in California
2. Sent Letter to all CA Drillers Requesting to Submit Logs within required 60-day period.
3. Established Contact list for Well Permit in all 58 Counties
4. Sent Letter to all Counties to Track and Coordinate Well Permitting with DWR.
5. Currently following up with Counties on Drilling activity
6. Develop Summary Map Sac Valley Well Depth vs Depth to GW.

April 30, 2014 Report to the Governor

CASGEM Emergency Funding Actions

CWAP and Interagency Alignment (draft)

RECIRC2575.

SWRCB Mission

To preserve and enhance the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.

Draft Groundwater Workplan Concept Paper

Proposed framework to organize Water Board's groundwater activities to address groundwater challenges that have the greatest potential to impact beneficial uses, focus limited resources on most important groundwater problems, and facilitate more efficient local and regional groundwater management and provide support and oversight where needed.

Management Elements and Potential Actions

1. Sustainable Thresholds
2. Monitoring and Assessment
3. Governance and Management
4. Funding
5. Oversight and Enforcement

California Water Action Plan

More Reliable Water Supplies	Restoration of Species & Habitat	Sustainably Managed Water Resources

Action #6: Expand Water Storage Capacity and Improve Groundwater Management

a. Provide Essential Data to Enable Sustainable GWM
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f. Increase Statewide Groundwater Recharge
g. Accelerate Clean-up of Contaminated Groundwater and Prevent Future Contamination

State Agency Steering Committee

SWRCB/ DWR Joint Management/ Technical Committee

DRAFT

DWR Mission

To manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments.

DWR's Guiding Principles for Groundwater Management

No transfer of impacts; Regions accept responsibility for assessing risk; Develop IRWMPs to manage risk appropriately, Improve alignment of federal, state & local government to a provides tools, data, and guidance to encourage sustainable GWM

Local and regional agencies are best able to establish and implement sustainable groundwater management practices that provide widespread benefits to the public, economy, and environment.

If local or regional agency actions are insufficient to achieve sustainable groundwater management, further actions and responsibilities by the State will be required to redirect and implement sustainable groundwater management practices.

DWR Vision to Improve Groundwater Management

DWR promotes sustainable groundwater management at the local and regional level through technical guidance, financial assistance, interagency coordination, groundwater monitoring, basin assessments, and advancement of integrated regional water management.

5-year Implementation Plan Actions to Improve Groundwater Management

1. Coordinate Management of State Groundwater Programs
2. Provide Local and Regional Groundwater Assistance
3. Establish Long-term Baseline GW Monitoring & Reporting
4. Implement Groundwater Basin Assessments
5. Improve Authority and Governance of Sustainable GWM

Activities with Milestones and Performance Measures

Questions?

RECIRC2575.

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(530) 529-7373

Initial Study
and
Proposed Negative Declaration

for

Option Agreement
Between Glenn-Colusa Irrigation District,
San Luis & Delta-Mendota Water Authority and
the United States Bureau of Reclamation for 2008 Operations,
and Related Forbearance Program

For additional information regarding this document, contact:

Glenn-Colusa Irrigation District
Thaddeus Bettner, General Manager, GCID
Ben Pennock, District Engineer, GCID
bpennock@gcid.net
(530) 934-8881

2/8/08

GLENN-COLUSA IRRIGATION DISTRICT

PROPOSED NEGATIVE DECLARATION

Project Title: Option Agreement Between Glenn-Colusa Irrigation District, San Luis & Delta-Mendota Water Authority and the United States Bureau of Reclamation for 2008 Operations, and Related Forbearance Program

Project Proponent: Glenn-Colusa Irrigation District ("GCID").

Project Location: GCID's service area within Glenn and Colusa Counties and the service area of participating districts in the San Luis & Delta-Mendota Water Authority ("SLDMWA") in Fresno, Kings, Merced, San Benito, San Joaquin and Stanislaus Counties.

Project Description: Under the Agreement which includes an option provision, GCID proposes to forbear its diversions of surface water which would then be diverted by the Bureau of Reclamation ("Reclamation") under its permits, and then made available to the SLDMWA during the 2008 irrigation season. If SLDMWA exercises its option under the agreement, GCID will provide up to 82,500 acre-feet of surplus water in accordance with a forbearance program undertaken by GCID in cooperation with its landowners who voluntarily decide to participate in the program by crop idling or crop shifting. GCID will also provide up to 2,500 acre-feet of water made available from groundwater substitution produced from two GCID-owned electric groundwater wells.

Contacts: Thaddeus Bettner, General Manager, GCID (530) 934-8881
Ben Pennock, GCID (530) 934-8881

This document has been prepared pursuant to the requirements of the California Environmental Quality Act (Sections 21000, et seq., Public Resources Code) and the State CEQA Guidelines (Sections 15000, et seq., Title 14, California Code of Regulations).

Based upon the following Initial Study, it has been found that:

☒ this project would not have a significant effect on the environment.

☐ mitigation measures included in the project would avoid potentially significant effects.

TABLE OF CONTENTS

SECTION 1 - PROJECT DESCRIPTION

1.0 PROJECT INTRODUCTION AND BACKGROUND

Under the proposed Agreement, Glenn-Colusa Irrigation District ("GCID") proposes to forbear its diversions of surface water which would then be diverted by the Bureau of Reclamation ("Reclamation") under its permits, and then made available to the San Luis & Delta-Mendota Water Authority ("SLDMWA") during the 2008 irrigation season. If SLDMWA exercises its option under the Agreement, GCID will provide 82,500 acre-feet of surplus water in accordance with a forbearance program undertaken by GCID in cooperation with its landowners who voluntarily decide to participate in the program by crop idling or crop shifting. GCID will also provide up to 2,500 acre-feet of water made available from groundwater substitution produced from two GCID-owned electric groundwater wells. The proposed Agreement and forbearance program (the "Project") would be performed and implemented for the 2008 irrigation season only.

The Agreement provides that GCID will forbear a portion of its base supply and Project water identified in its Sacramento River Settlement Contract ("Settlement Contract") with Reclamation. The forbearance shall be undertaken in a manner that allows Reclamation to deliver the forborne water supply as Central Valley Project ("CVP") water to SLDMWA. The term of the Agreement will be from the date of execution of the Agreement through and including February 28, 2009.

The Agreement enables Reclamation to implement Section 3406d(1) of the Central Valley Project Improvement Act ("CVPIA") which requires the Secretary of the Department of Interior to diversify sources of supply to minimize adverse effects upon Project contractors from delivery of Level II refuge water supplies south of the Sacramento-San Joaquin Delta ("Delta").

Under the proposed Project, GCID's landowners, who voluntarily decide to participate in the forbearance program, will commit to forbear from the use of surface water that GCID would otherwise provide to those landowners during the 2008 irrigation season. In order to forbear from taking surface water deliveries from GCID, GCID's landowner participants may voluntarily choose to idle acreage or substitute different crops that use less water. GCID will verify the amount of surface water that has been forborne by participating landowners and that supply will remain undiverted in the Sacramento River where the water supply, less Delta carriage losses, will be diverted by Reclamation under its CVP permits and made available to SLDMWA and its contractors.

Under the Agreement, GCID would forbear the diversion of up to 85,000 acre-feet that GCID would otherwise be entitled to divert under the terms of its Settlement Contract with Reclamation (Contract No. 14-06-200-855A); and which, in the absence of the forbearance, would be diverted during 2008 for use on lands within GCID's service areas. Under the proposal, the forborne water would be deemed to be comprised of base supply and Project water in the same ratio as these types of water are identified in Schedule A of GCID's Settlement Contract. This forbearance would be undertaken in a manner that allows Reclamation to deliver the forborne water supply as Project water to

SLDMWA. Water made available would be delivered to Reclamation at the intake of GCID's Hamilton City pumping plant at River Mile 206 on the Sacramento River, with control of such water accruing to Reclamation at its upstream reservoirs or exported in the Delta.

Under the Agreement, Reclamation would operate the CVP so as to deliver water made available as a result of GCID's forbearance of diversions to SLDMWA and its contractors, at the locations identified in their respective water service contracts. During balanced conditions in the Delta (as defined in the Coordinated Operations Agreement), Reclamation would, to the extent possible, directly divert the water forborne as additional Project water at Jones or Banks Pumping Plants (assuming there is unused pumping capacity and all conditions necessary for joint point of diversion are met), or would, to the extent that operational conditions upon the Sacramento River permit, back the forborne water into Reclamation'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, Reclamation 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 Reclamation's Central Valley Operations Office ("CVO"), 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 SLDMWA and its contractors as soon as possible after its storage in an upstream reservoir. The SLDMWA and its contractors would pay for such storage at the rate determined by Reclamation. Water stored in an upstream CVP reservoir pursuant to this forbearance proposal would be the first water to spill. Water not spilled and carried over to the following year will be available to SLDMWA as supplemental water to be pumped at the Delta facilities when there is pumping capacity.

In order to forbear from taking surface water deliveries from GCID, GCID's landowner participants may voluntarily choose to idle acreage or substitute different crops that use less water. GCID anticipates that rice acreage will comprise most of the crop acreage, if not all, that will be involved as part of the forbearance program. In order to provide for an assessment for environmental impacts, and to address concerns regarding potential economic impacts, GCID will not allow more than 20% of the total acreage within GCID that was served with surface water deliveries from GCID during the 2007 irrigation season to be idled as part of the Project. In this regard, approximately 125,000 acres were planted within GCID and served with surface water deliveries from GCID, during the 2007 irrigation season. The proposed Evapo-Transpiration Rate of Applied Water ("ETAW") for rice culture is 3.3 acre-feet per acre, which is consistent with the recent ETAW rates used for water transfers in the Sacramento Valley based on crop idling of rice acreage (California Water Plan Update, Bulletin 160-05, December 2005). Thus, if up to 20% of GCID's 2007 acreage is idled under the forbearance program

(125,000 x .20 = 25,000 acres), the water made available for transfer by idling rice would be up to 82,500 acre-feet of water (25,000 acres x 3.3 acre/ft/acre.).

GCID will also allow for crop shifting under this forbearance program, however, it is expected that no more than 1,000 acres would participate by landowners who voluntarily choose to cultivate different crops having lower water demand. In these cases, the difference between the ETAW of the higher and lower water demand crops would be used to calculate water made available. The remaining 2,500 acre-feet that could be transferred would be made available by groundwater substitution attributable to pumping from two GCID-owned electric wells.

The SLDMWA was established in January of 1992 and consists of 32 Member Agencies representing approximately 2,100,000 acres of federal and exchange water service contractors within the western San Joaquin Valley from the City of Tracy in the north to Kettleman City in the south, as well as portions of Monterey, San Benito, Santa Cruz, and Santa Clara counties. (See listing of Member Agencies below.)

WATER AUTHORITY MEMBER AGENCIES

Division 1: Delta Division – Upper DMC

1) Banta-Carbona Irrigation District
2) Byron-Bethany Irrigation District
3) Centinella Water District
4) City of Tracy
5) Del Puerto Water District
6) Patterson Irrigation District
7) Westside Irrigation District
8) West Stanislaus Irrigation District

Division 2: San Luis Unit – SLC

9) Panoche Water District
10) Pleasant Valley Water District
11) San Luis Water District
12) Westlands Water District

Division 3: Exchange Contractors and Refuges

13) Central California Irrigation District
14) Columbia Canal Company
15) Firebaugh Canal Water District
16) Grassland Water District
17) San Luis Canal Company

Division 4: San Felipe Division

18) Pajaro Valley Water Management Agency
19) San Benito County Water District
20) Santa Clara Valley Water District

Division 5: Delta Division – Lower DMC & Mendota Pool

21) Broadview Water District
22) Eagle Field Water District
23) Fresno Slough Water District
24) James Irrigation District
25) Laguna Water District
26) Mercy Springs Water District
27) Oro Loma Water District
28) Pacheco Water District
29) Reclamation District 1606
30) Tranquillity Irrigation District
31) Turner Island Water District
32) Widren Water District

The SLDMWA is responsible for delivery of approximately 3,000,000 acre-feet of water to its Member Agencies. Of this amount, 2,500,000 acre-feet are delivered to highly productive agricultural lands, 150,000 to 200,000 acre-feet for M&I uses, and between 250,000 to 300,000 acre-feet are delivered to wildlife refuges for habitat enhancement and restoration.

Water use in the CVP Westside region is dependent upon land use, which is characterized as agricultural, M&I, or habitat management. Agricultural water use occurs on approximately 850,000 irrigated acres on the Westside. The current M&I water supply provides a portion of the water supply needs for approximately two million people in Santa Clara and San Benito Counties as well as the San Joaquin Valley. Water use for habitat management occurs on approximately 120,000 acres of refuge lands.

The Westside water supply is comprised of CVP water, groundwater and local surface water. Since 1989, CVP water supply allocations have decreased significantly for Westside CVP contractors. Current water supply modeling efforts have shown that this decline is primarily attributable to implementation of the following laws and regulations:

- State Water Resources Control Board water quality standards for the Bay-Delta; Decision-1485 and Decision-1641.
- State and Federal Endangered Species Act provisions.
- Central Valley Project Improvement Act (P.L. 102-575) implementation.

The annual CVP allocation for south-of-Delta contractors is described in terms of a percentage of the total contracted supply under CVP south-of-Delta water service contracts for irrigation and M&I uses ("Contract Total"). This transaction is needed because the CVP south-of-Delta irrigation allocation for water service contractors for 2008 is anticipated to be as low as 30% to 60% of the CVP Contract Total. By comparison, the projected long-term average allocation of CVP irrigation water south-of-Delta is approximately 65% of Contract Total, and a recent historic average is 76.4%

over the past five years, with a variation between 50 and 100%. The potential reduction in 2008 water allocation is further exacerbated due to lower than average CVP carryover storage and Federal Court-mandated actions for delta smelt protection. This water purchase would assist in acquiring an amount of water for the participating south-of-Delta CVP water service Contractors to help make up for the reduced water allocations. None of the purchased water would be made available to supplement water under settlement or exchange contracts, as these do not share in the allocation shortages imposed on the water service contractors.

1.1 PROJECT LOCATION

The Project area, defined by the region in which the water is made available, is within the GCID boundaries, and situated within Glenn and Colusa Counties. See Figures 1 and 2. The precise location of the lands involved in the Project will be dependent upon the actual landowners who voluntarily choose to participate in the forbearance program for 2008. GCID will make efforts to disperse any idled lands under the forbearance program to minimize any localized effects of idled lands. Because participation in the forbearance program will be offered to all eligible growers, GCID anticipates a wide dispersal of acreage enrolled in the program. In this regard, the lands within GCID that are currently enrolled to participate in the forbearance program for 2008 are depicted on the map in Figure 3. In any event, adequate water levels will be maintained by GCID in laterals and drains associated with the idled lands, which will avoid any potential wildlife impacts associated with dewatered conveyances. Prior to the water being made available under the forbearance program, GCID will have a completed map showing all fallowed lands participating in the Project. Additionally, the two GCID-owned electric wells are shown on Figure 1.

The SLDMWA region stretches from the City of Tracy in San Joaquin County at the north to Highway 41 and Kettleman City in Kings County to the South. On the east, the region is generally bounded by the San Joaquin River and to the west by the Coast Range. The region also encompasses parts of Monterey, San Benito, Santa Clara, and Santa Cruz Counties. The areas participating in this Project are expected to include Del Puerto Water District, Pacheco Water District, Panoche Water District, San Luis Water District, San Benito County Water District, and Westlands Water District, water service contractors in Fresno, Kings, Merced, San Benito, San Joaquin, and Stanislaus Counties. A map of the SLDMWA illustrating its external and internal boundaries, including those of the participating districts, can be found in Figure 4. The Contract Total for the participating districts is 1,681,453 acre-feet, as set out in the below Table.

DISTRICT	CONTRACT TOTAL ACRE-FEET
Del Puerto	140,210
Pacheco	10,000
Panoche	94,000
San Luis	125,080
San Benito County	43,800
Westlands (including assignments)	1,268,363
TOTAL	1,681,453

1.2 WATER QUANTITIES AND METHODS OF MAKING WATER AVAILABLE

No new construction by or improvements to GCID, Reclamation, SLDMWA, or its contractors' facilities would be necessary for the transfer of water from GCID to SLDMWA. The point of delivery for any transferred water will be at the intake of GCID's Hamilton City pumping plant at River Mile 206 on the Sacramento River. Water will be delivered on the basis of what the ETAW would have been for the participating croplands that are idled plus water made available through planting of reduced water demand crops. That is, only the water that would have been consumed in the process of crop use, in this case primarily rice culture, would be available for transfer. The ETAW for rice culture in the Sacramento Valley is calculated at 3.3 acre-feet per acre per growing season (California Water Plan Update, Bulletin 160-05, December 2005). Accordingly, for every participating acre of rice production idled or cultivated without surface water from GCID, 3.3 acre-feet of water would be made available for transfer across the growing season. The ETAW values that have been assigned to various croplands that may participate under the Project are identified below in Table 1.1.

Table 1.1
Estimated ETAW Values for Various Crops
For Use in 2008 Irrigation Season Forbearance Program

Crop	ETAW
Rice	3.3
Tomato	1.8
Safflower	.7
Wheat	.5
Corn	1.82
Sunflower	1.43
Alfalfa	3.0
Melon	1.12
Bean	1.52
Onion	1.1
Vine Seed	1.12
Sudan Grass	3.0
Walnut	3.0
Almond	3.0
Oats	.5
Pumpkin	1.1
Pasture	3.3
Cotton	2.8
Milo	1.65
Silage	1.8
Carrots	1.1

The typical growing season for rice culture is April through October, although surface water is generally applied only from May through September. The potential ETAW demand across these months is shown in Table 1.2 with the corresponding water production expectations assuming that there is enough participation in the program to produce 82,500 acre-feet of water made available from crop idling/crop shifting, and 2,500 acre-feet of water from groundwater substitution.

Table 1.2
Water Availability Schedule

	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
ETAW (%)	15	22	24	24	15			100
Fallowing (AF)	12,375	18,150	19,800	19,800	12,375			82,500
Groundwater			500	500	500	500	500	2,500
Total	12,875	18,650	20,300	20,300	12,875	500	500	85,000

The quantity of water made available by GCID through groundwater substitution will be equal to the quantity of groundwater pumped from the two participating GCID-owned wells during the period April through November 2008.

The total diversions by GCID, including the amount of water made available by forbearance as determined under this proposed Project, and any amount of water that may be transferred under their Settlement Contracts during the April–November contract period, would not exceed GCID's total Contract Amount as specified in its Settlement Contract.

Water will be made available by GCID to SLDMWA at the point of delivery in accordance with the preceding schedule. SLDMWA will make arrangements under existing contractual agreements with Reclamation for SLDMWA's conveyance of the transferred water through the Delta, pumping the water into the California Aqueduct or the Delta Mendota Canal, and the ultimate delivery of the water into the SLDMWA service area. In the near term, additional restrictions are in place as a result of interim operational remedies imposed by the United States District Court, Eastern District of California in *NRDC v. Kempthorne*, which will govern CVP and State Water Project ("SWP") operations for the protection of the delta smelt (*Hypomesus transpacificus*). Conclusion of the current consultation on the Long-Term CVP and SWP Operations Criteria and Plan ("OCAP") with the United States Fish and Wildlife Service ("USFWS") and National Oceanic and Atmospheric Agency ("NOAA") Fisheries Service is expected to provide new Biological Opinions during 2008 for delta smelt, salmon, and green sturgeon that would replace the court's order regarding CVP/SWP operation. As a result, water may not be able to be transferred in certain months due to environmental restrictions on CVP/SWP pumping.

Reclamation and the California Department of Water Resources ("DWR") estimate that approximately 20% 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 though the Bay-Delta system. This percentage of water is known as "carriage water." Additionally, DWR may assess against SLDMWA a 3% system loss due to evaporation and other losses for water received at the Banks pumping plant and transported through the SWP. Accordingly, the 85,000 acre-feet of water made available by GCID to Reclamation and SLDMWA at the point of delivery would actually yield to SLDMWA up to approximately 65,450 acre-feet (based on transfer of direct forgone crop water consumption only). At the end of the irrigation season, the amount of carriage water actually required would be calculated by Reclamation and DWR, and assessed against SLDMWA. Depending upon the hydrologic year type and other operational constraints, the actual amount of carriage water assessed against SLDMWA for the transfer would vary somewhat from this estimate.

1.3 USE OF WATER BY SLDMWA

Upon the effective date of the Agreement, GCID will convey to SLDMWA an option to purchase up to 85,000 acre-feet of water made available by GCID during the 2008 irrigation season. The deadline for SLDMWA to exercise its option to request GCID to make water available is April 21, 2008. If SLDMWA exercises its option, SLDMWA would take delivery of this water using existing conveyance facilities operated within parameters typical for CVP deliveries. The acquired supplies would provide additional resource options to the participating SLDMWA irrigation water service contractors to mitigate potential dry-year water shortage conditions and water supply reductions due to remedial Delta operations for delta smelt mitigation in 2008. Given Delta carriage losses to be charged against the 85,000 acre-feet, the actual delivered amount is expected to be approximately 68,000 acre-fee, or substantially less than 5% of Contract Total south-of-Delta supplies for CVP water service contractors in general, and approximately 4% for the participating districts. Given the overall uncertainty as to the 2008 allocation, the exact total irrigation water supply to the participating water service contractors cannot presently be determined, but it is highly unlikely it would exceed 65% and if it did, it would be a maximum incremental increase for the one-year term of approximately 4%. Further, any amount of water that may be transferred under the Agreement would not exceed the respective Contract Totals specified in the CVP water service contracts of any SLDMWA members that received such water. Accordingly, any amount of water made available under the Project would not represent a dependable long-term increase in supply. As such, no adverse Project-specific impacts to SLDMWA's service area due to the proposed Project would occur.

SECTION 2
INITIAL STUDY AND EVALUATION OF ENVIRONMENTAL IMPACTS

The following Initial Study, Environmental Checklist, and evaluation of potential environmental effects 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 3. 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:** Option Agreement Between Glenn-Colusa Irrigation District, San Luis & Delta-Mendota Water Authority and the United States Bureau of Reclamation for 2008 Operations, and Related Forbearance Program

2. **Lead Agency Name and Address:** Glenn-Colusa Irrigation District
   344 East Laurel Street
   Willows, CA 95988

3. **Contact Person and Phone Number:** Thaddeus Bettner, General Manager, GCID
   (530) 934-8881
   Ben Pennock, District Engineer, GCID
   (530) 934-8881

4. **Project Location:** GCID's service area within Glenn and Colusa Counties and the service area of participating districts in the SLDMWA in Fresno, Kings, Merced, San Benito, San Joaquin and Stanislaus Counties.

5. **Project Sponsor's Name and Address:** Glenn-Colusa Irrigation District
   344 East Laurel Street
   Willows, CA 95988

6. **Description of Project:** Refer to Section 1 of the Negative Declaration.

7. Other agencies whose approval is required:

SLDMWA – contract approval and filing of Notice of Determination as a Responsible Agency under CEQA.

United States Bureau of Reclamation – contract approval and completion of any environmental review required under the National Environmental Policy Act ("NEPA").

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below could 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.

□ Aesthetics	□ Agriculture Resources	□ Air Quality
□ Biological Resources	□ Cultural Resources	□ Geology /Soils
□ Hazards/Hazardous Materials	□ Hydrology / Water Quality	□ Land Use / Planning
□ Mineral Resources	□ Noise	□ Population / Housing
□ Public Services	□ Recreation	□ Transportation/Traffic
□ Utilities / Service Systems	□ Mandatory Findings of Significance	

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
I. AESTHETICS:				
Would the proposed Action:				
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 which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Discussion:

a,b,d) No Impact. As there would be no construction activities (e.g., ground disturbing 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 within GCID with the proposed Project. In the SLDMWA participating areas there would also be no construction activities or new sources of light and glare.

c) Less-than-significant Impact. The pattern of cropping in the area within GCID's jurisdiction would be altered slightly, in that somewhat more land would be idled or crop type might change due to the implementation of the proposed Project (i.e., up to 20% of acreage planted for the specific crop type in 2007). Idled land and crop diversity is a typical feature of the agricultural landscape in GCID's jurisdiction as a function of normal cultural practices often unrelated to a water transfer 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 GCID's jurisdiction. Within SLDMWA, the proposed Project would help maintain existing patterns of irrigation and crop diversity within normal cultural practices.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
II. AGRICULTURE RESOURCES:				
Would the proposed Action:				
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?	☐	☐	☐	☒

Discussion:

a-c) No Impact. As a one-year activity for 2008 only, the proposed Project would not convert any farmland (Prime, Unique, Important or otherwise) to non-agricultural uses within GCID. The proposed activity would result in a reduction in the amount of farmland irrigated during the 2008 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. Within SLDMWA, the proposed activity would result in maintaining typical irrigation patterns and avoiding an increased amount of land idling during 2008, due to water shortages during that year. Thus, no impact to agricultural resources would occur with Project implementation.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
III. AIR QUALITY:				
Would the proposed Action:				
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute 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, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Discussion:

a-e) No Impact. Implementation of the proposed water transfer will not conflict with any air quality attainment plans, contribute to any violation of any air quality standard, result in any increase in any criteria pollutants, expose sensitive receptors to pollutants, or create any objectionable odors. There are no new construction activities associated with the water transfer. The small amount of groundwater substitution that will be undertaken to make water available will be from only two GCID-owned electric wells, which will be pumped only in amounts consistent with recent historic use. Given this power source, there will not be any significant emissions of air pollutants or production of greenhouse gases from wells utilized for the Project, and therefore no resultant significant impacts on air quality in GCID. In the SLDMWA service area, delivery of any substituted groundwater will augment the shortage in surface supplies and may offset greenhouse gas emissions otherwise produced for well pumping in the area, a beneficial but insignificant effect. The area farmed within the SLDMWA service area will not exceed recent historic land under cultivation or support a change in cropping patterns and therefore will cause no resultant significant impacts on air quality.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
IV. BIOLOGICAL RESOURCES:				
Would the proposed Action:				
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 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, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on 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?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

Discussion:

Biological Resources potentially affected by the proposed Project are in most cases different in the GCID service area and Sacramento River conveyance corridor from the water delivery area within the SLDMWA. While there are multiple special-status species present in the SLDMWA service area, the Project provides for an incremental water supply to an existing agricultural area to partially make up shortages from the ordinary supply available through the CVP and subject to the terms of existing CVP contracts. The action will not involve conversion of any land fallowed and untilled for three or more years. It will not change the land use patterns that affect existing available habitats for bald eagle (*Haliaeetus leucocephalus*); vernal pool tadpole shrimp (*Lepiderus packardi*); vernal pool fairy shrimp (*Branchinecta lynchi*); Longhorn fairy shrimp (*Branchinecta longiantennal*); conservancy fairy shrimp (*branchinecta conservation*); Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*); Central California steelhead trout (*Oncorhynchus mykiss)*; South Central California steelhead trout *(Oncorhynchus mykiss-CCC-ESU)*; California tiger salamander (*Ambystoma claiforniense);* California red-legged frog (*rana aurora draytonii);* Blunt-nosed leopard lizard (*Gabelia sila*); giant garter snake (*Thamnophis gigas*); Tipton kangaroo rat (*dipodomys nitratoides nitratoides*); riparian woodrat (*Neotoma Fuscipes riparia*); riparian brush rabbit (*sylvilagus bachmani riparius*); giant kangaroo rat (*Dipodomys ingens);* or San Joaquin kit fox (*Vulpes macrotis mutica*), all of which are possible or present within portions of the SLDMWA service area. For the same reasons, the proposed Project will not affect migratory corridors of the San Joaquin Kit Fox, critical habitat for the vernal pool invertebrates described above, riparian habitat of the riparian woodrat or riparian brush rabbit; and will not change the pattern of cultivated or fallowed fields that do have some value to listed species of birds protected by the Migratory Bird Treaty Act. Due to the lack of natural waterways within the species' range in the SLDMWA service area and the limitations in Delta export capacity and water quality restrictions implemented through various regulatory programs affecting water management in that service area, there would be no effects on listed fish species. Therefore, no impact would occur within the SLDMWA service area. A discussion of effects for the GCID area of the proposed Project is as follows:

a) Less than significant Impact. Several special-status wildlife species have the potential to occur within the GCID Project area: the giant garter snake (listed as state and federally threatened), the northwestern pond turtle (listed as a state species of special concern and federal species of concern), the winter-run Chinook salmon (listed as state

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

and federally endangered), the delta smelt (listed as state and federally threatened), and the steelhead (listed as federally threatened).

Giant Garter Snake (*Thamnophis gigas*)
The giant garter snake may be found in agricultural wetlands such as irrigation and drainage canals. These artificial waterways can potentially be used for purposes such as ease of movement; protection from predators; warmth to aid metabolism, gestation, and digestion; and as a food source. (Draft Recovery Plan for the Giant Garter Snake, 1999.) While the irrigation patterns throughout GCID would be modified as a result of the proposed Project, water levels in irrigation and drainage canals would be maintained within several inches of non-Project operations and no complete drying out of such conveyances would occur. As such, GCID's water conveyance system would remain watered and available to the snake and other wildlife that utilize it. In this regard, the lands within GCID that are currently enrolled to participate in the forbearance program for 2008 are depicted on the map in Figure 3. GCID's extensive network of lateral and drainage canals is also depicted on this map. This map shows that all of these enrolled lands are within ¼ mile or closer to GCID's canal network. This further serves to minimize any potential adverse affects to the giant garter snake by providing transportation corridors, and foraging and cover areas, in immediate proximity to the fallowed lands.

Flooded rice fields in the Sacramento Valley can be used by the giant garter snake for foraging, cover and dispersal purposes. The non-irrigated Project fields would have little or no vegetation, retaining the open character that is currently present in fields that are between plantings or that otherwise have relatively little vegetative cover. The maximum increase percentage of land idled in this Project would be up to 20% of the total amount of acreage within GCID that was served with surface water deliveries from GCID during the 2007 irrigation season to be idled as part of the Project. Accordingly, at least 80% of GCID's irrigable acreage would remain unaffected or would be subject to changed cropping selection that preserves the vegetated condition of the land. Lands taken out of production would be dispersed throughout GCID such that the contiguous nature of idled lands would be minimized allowing for a mosaic of lands that could be utilized by the snake throughout the GCID's jurisdiction. The changes to agricultural fields that would occur under the proposed Project could have minor and temporary indirect effects on the giant garter snake through the decrease in potential cover and foraging areas as a result of the reduction in planted rice acreage. The one-year duration of the proposed Project minimizes any potential disruption to the giant garter snake. Moreover, GCID, in consultation with the USFWS, has developed certain best-management operations and maintenance practices for agricultural lands that are within giant garter snake habitat. GCID implements these measures on a voluntary basis in order to minimize any impacts to the giant garter snake.

In 2003, GCID implemented a similar fallowing based one-year water transfer agreement with south-of-Delta water users that involved the fallowing of approximately 20,000 acres within GCID. Reclamation reviewed that transfer, along with similar

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

concurrent one-year water transfers proposed by seven other water districts in the Sacramento Valley, which together accounted for an additional approximately 10,000 acres of fallowed rice acreage. In reviewing the potential adverse effects and impacts on the giant garter snake from the fallowing of approximately 30,000 acres of rice lands under those 2003 transfer agreements, Reclamation determined those transfers were not likely to adversely affect the giant garter snake. A copy of Reclamation's December 23, 2002 memorandum setting forth this determination is attached hereto in Appendix A, and incorporated herein by reference.

Because the proposed Project would not convert any agricultural lands to non-agricultural land uses, the only change would be a temporary, one-year increase in the time between planting of rice crops within a percentage of the GCID farmlands. In addition, at least 80% of GCID's irrigable acreage would remain unaffected by the proposed Project or would incorporate reduced water consumptive crop planting, preserving the vegetated state of these participating acreages. As such, the proposed Project would have a less-than-significant impact to the giant garter snake within the existing farmlands due to a short-term decrease in potential cover and foraging areas for this species.

Northwestern Pond Turtle (*Clemmys marmorata marmorata*)
The northwestern pond turtle inhabits waters with little or no current. The banks of inhabited waters usually have thick vegetation, but basking sites such as logs, rocks, or open banks must also be present. Pond turtles lay their eggs in nests in upland areas, including grasslands, woodlands, and savannas. Pond turtles could potentially be found in and along irrigation and drainage canals. The proposed Project would not eliminate water from the conveyance canals within GCID's service area. Therefore the proposed Project would not impact the western pond turtle either directly or indirectly.

Chinook Salmon (*Oncorhynchus tshawytscha*), Delta Smelt (*Hypomesus transpacificus*), Steelhead (*Oncorhynchus mykiss*), and Green Sturgeon (*Acipenser medirostris*)
The Delta is a migration corridor and seasonal rearing habitat for winter-run and spring-run Chinook salmon, green sturgeon and steelhead. It provides spawning and nursery habitat for delta smelt. The water made available under the Agreement would be delivered through the Delta with timing identical to SLDMWA's typical CVP deliveries in conformance with all existing and pending requirements under the Endangered Species Act, including court orders, which govern CVP and SWP operations for the protection of Chinook salmon, delta smelt, green sturgeon, and steelhead.

The Project would not affect these environmental regulations and restrictions or CVP operations under them. Required releases from Shasta Reservoir for the protection of fisheries would continue to be made. Indeed, flows in the lower reaches of the Sacramento River and much of the Delta would increase slightly. Moreover, diversions through the pumps in the Delta would occur under the requirements of the Court's interim remedies order in *NRDC v. Kempthorne*, which will govern CVP and SWP operations for the protection of the delta smelt pending the conclusion of the current consultation on the Long-Term CVP and SWP OCAP with USFWS and NOAA Fisheries

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

Service. This consultation is expected to provide new Biological Opinions during 2008 for delta smelt, salmon and green sturgeon that would replace the Court's interim remedies order. SLDMWA's diversions of water made available under this proposed Project would be undertaken in compliance with the new Biological Opinions. As such, there would be no direct or indirect impact from the proposed Project on listed fish species in the Delta.

As noted above, Reclamation reviewed the potential adverse affects of similar water transfers in 2003 on listed species. Those transfers from GCID, and the other seven water districts, involved the transfer of approximately 110,000 acre-feet of water to south-of-Delta water users. In reviewing the potential adverse effects and impacts of those transfers on winter-run and spring-run Chinook salmon, steelhead and delta smelt, Reclamation determined those transfers were not likely to adversely affect those listed species. Copies of Reclamation's December 23, 2002 and December 24, 2002 memoranda setting forth these determinations are attached hereto in Appendix A, and incorporated herein by reference.

The proposed Project would result in less-than-significant impacts to special status species because no special status wildlife would be directly affected by the idling activities and indirect impacts to habitat, such as a decrease in potential foraging and cover habitat for the giant garter snake, would be temporary (i.e., one year) and minimal.

b) No impact. The proposed action would have no effect on riparian or other sensitive habitats because the Project area is not adjacent to or within such habitats. Therefore no impact to riparian or other sensitive habitats would occur.

c) No Impact. No impacts to wetlands would occur from the proposed Project. Water levels in irrigation and drainage canals would be maintained within several inches of non-Project operations

d) Less than significant Impact.

Waterfowl

The proposed Project would result in the fallowing of up to 25,000 acres of rice fields. Rice fields in the Project area serve as foraging habitat for many waterfowl species. However, implementation of the proposed Project would not interfere substantially with the foraging of native-resident or migratory waterfowl because other foraging habitat is abundant both locally and regionally. Because the proposed Project would not convert any agricultural lands to non-agricultural land uses, the only change would be a one-year increase in the time between planting of rice in the Project farmlands and a minor reduction in the acreage of rice lands available to waterfowl for foraging in 2008. Total rice plantings in the Sacramento Valley exceed 500,000 acres, thus, fallowing would result in less than 5% reduction in cropped acreage. This reduction in foraging acreage is less-than-significant based upon the regional abundance of flooded foraging habitat.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

Therefore, a less-than-significant impact would result to potential wildlife corridors for waterfowl which include the Project acreage.

Fish Species

The proposed Project may increase flows during July through September in the Sacramento River resulting from the movement of transfer water. Such flow increases may have a beneficial effect on fish in the river during the transfer period. Because of the relatively large volume of summer flows in the Sacramento River, changes in flows resulting from the water acquisition would be small and effects on fish in the Sacramento River would be negligible. Therefore, there would be no adverse impact on the movement of any native resident or migratory fish species from the proposed Project.

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 GCID area or for the SLDMWA area. Hence no impact to adopted habitat conservation plans would occur with Project implementation.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
V. CULTURAL RESOURCES:				
Would the proposed Action:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §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?	☐	☐	☐	☒

Discussion:

a-d) No Impact. Within GCID, the proposed Project does not involve any land alteration and thus no archeological or palentologic disturbances are possible within the proposed Project's scope. In addition, with no ground disturbing activities proposed, there would be no disturbances to potential burial sites or cemeteries. Similarly, within the SLDMWA service area, the proposed Project involves delivery of water to existing farmed acreage, and no new land alteration, archeological or palentologic disturbances, burial site or cemetery disturbances will occur. Therefore, no impact to cultural resources would occur with Project implementation.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VI. GEOLOGY AND SOILS:				
Would the proposed action:				
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 strata 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, creating substantial risks to life or property?	☐	☐	☐	☒

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

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) Less Than Significant Impact. Within GCID where idling/crop changes could occur, 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 are susceptible to wind erosion but have a relatively low wind erodibility index. The National Resources Conservation Service's 2001 Annual National Resources Inventory found that wind erosion averaged 2.1 tons per acre on cropland.

Agricultural practices dominate over climatic variability in determining temporal variability in dust blowing off cropland in the Sacramento Valley. Farming operations that increase wind erosion and dust emissions include plowing, leveling, planting, weeding, seeding, fertilizing, mowing, cutting, baling, spreading compost or herbicides, and burning fields. These actions can be avoided when a field is left fallow for the season resulting in a net reduction of wind erosion and dust.

Soils such as fine sands and silts have a higher wind erodibility index than the clays and silty-clays. Therefore, the soils in the Project area have a relatively low risk of wind erosion when left in a dry, unvegetated condition. No significant impacts are expected.

Within the SLDMWA service area, provision of the supplemental supply will reduce the area that could be left in a dry, unvegetated condition due to water shortage, a beneficial but less than significant effect.

c) No Impact. Soils in the proposed GCID Project area consist of clays with a flat terrain. The proposed Project would not result in instability of existing soils. Within the SLDMWA service area, soils currently receive irrigation water, and the use of this supplemental supply to partially offset shortages would not cause instability or subsidence. Thus, 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.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

d) No Impact. Expansive soils are not known to occur within 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 implementation of the Proposed project.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VII. HAZARDS AND HAZARDOUS MATERIALS:				
Would the proposed Action:				
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) 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?	☐	☐	☐	☒

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 GCID's jurisdiction. Herbicide and pesticides use would decrease by up to 20% from what is now occurring within GCID's area due to the idling of the rice crops 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. Within the SLDMWA service area, the amount of water supplementing the CVP allocation will amount to a maximum, after deductions for Delta carriage losses, of approximately 68,000 acre-feet, representing approximately 4% of the Contract Total for the participating districts, and an amount within the normal annual variability of such deliveries and less than the Contract Total that has been applied in some years. Thus, the additional water will not be expected to significantly increase the farmed acreage or chemical application over existing annual variability. Overall, there would be no hazardous impacts with Project implementation.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VIII. HYDROLOGY AND WATER QUALITY:				
Would the proposed Action:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should 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?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 housing within a 100-year flood hazard area structures 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 of seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion:

a) No Impact. The proposed Project would not involve any discharges in the GCID area; the minimal increase in water allocation within the SLDMWA will not result in discharge increases over existing annual variability. All such discharges are subject to regulatory programs, such as the Irrigated Lands Program for surface discharges and the Grassland Bypass Project for areas with subsurface discharges and would not violate water quality standards or waste discharge requirements. Hence, no impacts to water quality standards would occur with Project implementation.

b) Less Than Significant Impact. The proposed Project would propose to extract 2,500 acre-feet of groundwater from two existing GCID-owned electric wells. During the groundwater pumping period, GCID will actively monitor surrounding wells and private wells to insure GCID's well pumping does not impact adjacent lands. If GCID determines that impacts may occur, or is notified by an adjacent landowner that impacts are occurring, GCID will reduce or eliminate the operation of its wells. However, as a result of GCID's water deliveries to non-fallowed lands and canal seepage, it is expected that GCID will recharge the groundwater aquifer in excess of 100,000 acre-feet within its service area, thus, the groundwater pumping will be completely offset by groundwater recharge which should not impact groundwater levels or pumping by others.

In addition, because the Project is of limited duration (one year) and will represent only a de minimus incremental increase in groundwater pumping from the basin during the 2008 irrigation season, no significant groundwater impacts are anticipated. Groundwater supply data collected as part of DWR Bulletin 160-05, indicates that approximately 1,200,000 acre-feet of groundwater is extracted from the Sacramento Valley portion of

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

Butte, Colusa, Glenn, and Tehama Counties during a normal water year.[1] The groundwater substitution component of this Project is only 2,500 acre-feet, or less than one-half of one percent of the regional average annual groundwater extraction. In addition, GCID operated a much larger groundwater program during 1994, a dry year. In 1994, the groundwater program produced approximately 65,000 acre-feet of groundwater during the summer months, and there was significant additional pumping that occurred outside of GCID and in other nearby districts. Groundwater levels across the region declined approximately 30 feet during the pumping period; however, the water levels fully recovered during the fall of 1994 and the winter of 1995. Within the SLDMWA service area, the slight increase in available surface supply from the Project would have a potentially beneficial but not significant effect on groundwater table levels insofar as the supplemental supply replaces groundwater pumping. Because of water shortage and regulatory activities, users within the SLDMWA service area have implemented extensive water conservation and reuse activities, so the application of the supplemental water, representing an increment of approximately 4% of the Contract Total for the participating districts and of the south-of-Delta Contract Total for all CVP water service contractors, will not be expected to have any effect on groundwater.

c) 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 the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. The water forborne would be maintained within existing conveyance and storage systems. No drainage courses would receive water from the GCID portion of the proposed Project, and the small incremental supply within the SLDMWA service area will not be sufficient to change drainage patterns, in particular given drainage management, water conservation actions and existing regulatory compliance efforts. In addition, there are no ground-disturbing activities associated with the proposed Project. As such, no impacts relating to water drainage patterns would occur with Project implementation.

d) 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 response (Items c-d). Hence, no impacts relating to storm water drainage systems would occur with Project implementation.

e-f) No Impact. The proposed Project would not result in degradation of water quality. Refer to previous responses (Items a-c). Hence, no impacts to water quality would occur with Project implementation.

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1 Groundwater supply estimates based on data developed by Department of Water Resources Northern District for the DWR Bulletin 160-05 Water Plan. Estimates were calculated based on actual water year 2000 (normal water year) for the area consisting of Butte, Colusa, Glenn, and Tehama Counties.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

g-i) No Impact. The proposed Project would not expose people or property to water-related hazards such as flooding or impede or redirect flood flows. The proposed Project would not involve constructing any housing. All facilities which would be utilized are existing facilities designed 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 proposed Project.

j) 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.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
IX. 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 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, as is annual variability in the number of acres irrigated. 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.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
X. MINERAL RESOURCES:				
Would the proposed Action:				
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?	☐	☐	☐	☒

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 within GCID and the minor increase to available water supply for a one-year period within the SLDMWA service area, within normal supply variability, would not result in the loss in the 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 Project.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XI. NOISE:				
Would the proposed Action result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne 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) 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 of public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion:

a-f) No Impact. The proposed Project does not involve the development or enhancement of any new noise emitting devices. In addition, there would be no construction activities, such as ground disturbing activities, associated with the proposed Project. Only existing facilities and equipment would be utilized with the proposed

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

Project. The potential increase in farming activities within the SLDMWA service area through provision of the small supplemental supply will remain within normal annual variability. As such, no noise impacts would result with Project implementation.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XII. POPULATION AND HOUSING:				
Would the proposed Action:				
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?	☐	☐	☐	☒

Discussion:

a-c) No Impact. The proposed Project would involve the movement of water in an amount which would not exceed historic maximum deliveries for water transported through the Delta, south-of-Delta conveyance facilities, or deliveries to land within the SLDMWA service area. Further, the water will not be utilized unless there is a demonstrable shortage of normally available supplies. Therefore, there would be no net increase in water supply. Finally, the Project is limited to a one-year period. 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 with the proposed Project.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

XIII. PUBLIC SERVICES:

Would the proposed Action:

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?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion:

a) No Impact. The proposed Project does not create any new demand for public services or alterations to existing public facilities. The proposed Project would occur within existing water conveyance facilities. Hence, no impacts to public services or facilities would occur with Project implementation.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XIV. RECREATION:				
Would the proposed action:				
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?	☐	☐	☐	☒

Discussion:

a, b) No Impact. The proposed Project would not create nor does it alter demand for recreational services. The proposed Project would involve the movement of water in amounts which would not exceed historic maximum deliveries for water transported through south-of-Delta export facilities or delivered within the SLDMWA service area. As such, there would be no net increase in recreational opportunities and no impacts to recreational facilities or activities would occur with Project implementation.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XV. TRANSPORTATION / TRAFFIC:				
Would the proposed action:				
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 to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion:

a-g) No Impact. The proposed Project does not create any new demand for any mode of transportation services within GCID or through the water conveyance system as it would involve existing facilities and to forebear water for water supply purposes. The

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

Project may support slightly increased farmed acres within the SLDMWA service area, but that is within normal annual variability on existing farmland. 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.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XVI. UTILITIES AND SERVICE SYSTEMS:				
Would the proposed action:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control 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 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 federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

Discussion:

a-g) 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 as well. Therefore no impacts to existing utilities and conveyance systems would occur with Project implementation.

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XVII. MANDATORY FINDINGS OF SIGNIFICANCE:				
Would the proposed action:				
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? ("Cumulative 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?	☐	☐	☐	☒

Discussion:

a) Less Than Significant Impact. A potential exists to degrade the environment in some resource areas (biological resources, geologic resources and aesthetics). However, there is no potential to cause substantial adverse effects to any resource, and as noted above and in paragraph b) below, these impacts are not significant individually or cumulatively.

b) Less Than Significant Impact. Water transfers from the Sacramento Valley through the Delta for consumptive uses and environmental purposes have been occurring on a large scale for over a decade. The only demonstrable adverse impacts known to

Issues and Determination:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*

have occurred were some impacts to groundwater levels and individual well owners' water supplies during some early transfer activities using over 100,000 acre-feet per year of groundwater substitution to generate the water for transfers.

The proposed transfer is one of several transfers that could occur in 2008. This Project proposes to provide SLDMWA with up to 85,000 acre-feet of water to meet some of its needs in the event of a shortfall in supplies during 2008. CALFED's Environmental Water Account will likely purchase up to 70,000 acre-feet from the Sacramento River watershed. In addition, other transfers from Sacramento Valley districts to SWP contractors may total approximately 205,000 acre-feet in 2008. In total then, it is possible that about 360,000 acre-feet of water may be transferred from the Sacramento Valley in 2008. This is within historic transfer volumes as shown in Table XVII-1 below and represents about 1.9% of the average annual total water supply available in the Sacramento Valley from surface and groundwater resources for all uses and 4.2% of total average agricultural water use in the Sacramento Valley.[2] As such, and recognizing that no significant impacts have been noted for transfers within this order of magnitude, no significant impacts are expected within the Sacramento Valley.

Given the chronic shortages in allocations of CVP irrigation water to south-of-Delta CVP water service contractors, the SLDMWA and its members have multiple programs to obtain supplemental supplies. These range from historic district to district transfers among CVP contractors in the area, reallocation agreements among Authority members, transfers from the Exchange Contractors to CVP water service contractors, and other similar transfers to SLDMWA. Under the proposed Project, the total of all such transfers will not exceed the Contract Total under the participants' respective water service contracts. Further, Reclamation retains the right to consent to any transfers utilizing CVP facilities, and such limit is a condition of any such consent. These restrictions guard against any cumulatively significant effects from the Project.

c) No Impact. The negative declaration assesses the potential impacts of the proposed Project. There would be no construction activities associated with the proposed Project. Typical farming practices with the idling of land in GCID would comply with applicable health and safety requirements. The potential increase in farmed acreage within the SLDMWA service area is within annual variability and could provide a minor beneficial effect on human economic activity. Therefore, the proposed Project would not cause substantial adverse effects on human beings, either directly or indirectly.

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2 DWR Bulletin 160-05.

Table XVII-1
(1,000's acre-feet)

Program	1991	1992	1993	1994	2001	2002	2003	2004	2005	2006	2007	2008 *
DWR Drought Water Banks Dry Year Programs	820	193	0	220	138	22	11	1	0	0	0	0
Environmental Water Act					80	142	70	120	5	5	125	70
Sacramento Valley Forbearance					160							85
Others						5						205
Totals	820	193	0	220	378	169	81	121	5	5	125	360

* 2008 numbers are estimated transfers.

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 Date

_____ _____

Printed Name For

SECTION 3 - REFERENCES

The following documents were used in the preparation of this Negative Declaration.

California Department of Water Resources. California Water Plan Update. Bulletin 160-05. December 2005.

State of California, 2007. California Environmental Quality Act, CEQA Guidelines. Amended July 27, 2007.

Rand Corporation, 1993. California's 1991 Drought Water Bank – Economic Impacts in the Selling Regions.

U.S. Department of Agriculture, Soil Conservation Service. 1993. U.S. Department of Agriculture Soil Conservation Service national soil survey handbook. November. Washington, DC.

U.S. Department of Agriculture, Natural Resources Conservation Service, 2001. Natural Resources Inventory 2001 Annual NRI Report, Soil Erosion. July 2003. [http://www.nrcs.usda.gov/technical/land/nri01/nri01eros.html]

U.S. Fish and Wildlife Service. 1999. Draft Recovery Plan for the Giant Garter Snake (Thamnopsis gigas). U.S. Fish and Wildlife Service, Portland, Oregon. ix+192 pp.

http://www.dfg.ca.gov/hcpb/species/ssc/ssc.shtml

http://endangered.fws.gov/wildlife.html#Species

SECTION 4 -LIST OF PREPARERS

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