

Attachment A

San Luis and Delta-Mendota Water Authority Comments, Including Attachments

February 24, 2012

Jon D. Rubin
Attorney at Law
916.594.9710 tel
916.594.9701 fax
JRubin@bhfs.com

VIA E-MAIL (MBANONIS@USBR.GOV) & FIRST CLASS MAIL

Michelle Banonis
Bureau of Reclamation
2800 Cottage Way, MP-170
Sacramento, CA 95825

RE: Draft EA/FONSI for Recirculation of Recaptured Water Year 2012 San Joaquin River Restoration Program Interim Flows

Dear Ms. Banonis:

The San Luis & Delta-Mendota Water Authority (Authority) is frustrated by the United States Bureau of Reclamation's (Reclamation) continued failure to completely describe and analyze the impacts of the San Joaquin River Restoration Program (SJRRP), consistent with the mandates of the National Environmental Policy Act (NEPA).

By letters dated July 16, 2010 and March 25, 2011, the Authority commented on prior environmental documents prepared for recirculation of recaptured SJRRP flows for Water Years 2010 and 2011. At those times, the Authority expressed significant concern with Reclamation's failure to adequately describe the proposed action; particularly Reclamation's failure to finalize its plan for recirculation, recapture, reuse, exchange or transfer of interim flows (Recapture and Recirculation Plan), as required under section 10004 of the San Joaquin River Restoration Settlement Act (Settlement Act) and section 16(a) of the Stipulation of Settlement in *Natural Resources Defense Council, et al. v. Rodgers, et al.*, Case No. S-88-1658, United States District Court, Eastern District of California (Friant Settlement). In those prior letters, the Authority also expressed concern that Reclamation segmented its analysis of the proposed action, in part, by analyzing the flow component and the recirculation and recapture component of the SJRRP in separate documents. In spite of the Authority and others drawing Reclamation's attention to these defects and the fact that the SJRRP is now in its third year of implementation, Reclamation has not made a sufficient effort to rectify previously existing defects. The draft environmental assessment for Recirculation of Recaptured Water Year 2012 San Joaquin River Restoration Program Interim Flows (Draft EA) contains the same legal inadequacies.¹ As a result, the draft finding of no significant impact (Draft FONSI) for the Draft EA lacks adequate support.

¹ The Authority hereby incorporates herein its prior comment letters, dated July 16, 2010 and March 25, 2011, attached hereto as **Exhibits A and B**.

I. Reclamation Has Improperly Segmented The Flow Component From The Recirculation Component Of The SJRRP

The proposed action, at a minimum, is the implementation of the SJRRP during Water Year 2012.² The SJRRP includes two components: (1) Reclamation releasing water from Friant Dam to meet the “interim flow” schedule and (2) Reclamation recapturing and recirculating those flows for the benefit of Friant Division long-term contractors. There is no recirculation of water without the interim flows. Reclamation’s decision to bifurcate environmental review of the interim flows component and the recirculation component of the SJRRP amounts to segmentation of the action, which is impermissible under NEPA.

NEPA prohibits agencies from segmenting a major federal action into smaller components to avoid the application of NEPA or the preparation of a more detailed assessment of the environmental effects of the overall action. (*Coal. on Sensible Transp., Inc. v. Dole*, 826 F.2d 60, 68 (D.C. Cir. 1987) (citing *Taxpayers Watchdog, Inc. v. Stanley*, 819 F.2d 294, 298 (D.C. Cir. 1987).) “Segmentation is to be avoided in order to insure that interrelated projects, the overall effect of which is environmentally significant, not be fractionalized into smaller, less significant actions.” (*Town of Huntington v. Marsh*, 859 F.2d 1134, 1142 (2nd Cir. 1988) (citing *Taxpayers Watchdog, Inc. v. Stanley*, 819 F.2d 294, 298 (D.C. Cir. 1987).) The Council on Environmental Quality’s NEPA Regulations contain detailed requirements pertaining to the scope of actions, including that an environmental document must consider “connected actions” and “cumulative actions.” (40 C.F.R. § 1508.25.)

As was the case in Water Years 2010 and 2011, the provision of interim flows and the recirculation of those flows in Water Year 2012 are connected. The interrelated nature of the interim flows and the recirculation of that water is described by Reclamation in the Draft EA: “Interim Flows and their associated actions are directly related to the availability of water for recirculation back to the Friant Division long-term contractors” (Draft EA, pp. 6-7.) The two components result from a single settlement agreement and a single act of Congress. Due to the connected nature of the two components, and Reclamation’s continued analysis of the impacts of releasing interim flows separate from the impacts of recirculating those interim flows, Reclamation has unlawfully segmented its analysis of impacts caused by implementation of the SJRRP during Water Year 2012. Accordingly, the Draft EA and Draft FONSI do not meet minimum standards set by NEPA.³

Reclamation may argue that it cures the segmentation defect by incorporating by reference the *Supplemental Environmental Assessment, Interim Flows Project – Water Year 2012* and the *Final Supplemental Environmental Assessment, Interim Flows Project – Water Year 2012* and related FONSI. (Draft EA, pp. 6-7.) However, that argument fails because Reclamation does not use the analyses from those prior documents in the Draft EA. Reclamation merely references those documents without explaining how the analyses in those prior documents affect the analysis in the Draft EA and Draft FONSI. Such an approach violates both the spirit and letter of NEPA. (See *City of Carmel-By-The Sea v. United States DOT*, 1998 U.S. Dist. LEXIS 21441 (N.D. Cal. 1998).)

II. Draft EA And Draft FONSI Fail To Provide A Complete And Accurate Description Of The Project

The Draft EA and Draft FONSI do not completely and accurately describe the proposed action. This is another fatal defect. An accurate project description is necessary to ensure the proposed

² Strong arguments exist, as the Authority has previously presented, that the proposed action is interim and long-term implementation of the SJRRP.

³ Another example of Reclamation’s impermissible segmentation of the SJRRP is discussed below in section II(B).

action's environmental impacts are accurately disclosed and analyzed. (See 40 C.F.R. §§ 1502.13, 1502.14, 1502.16.) It provides decisionmakers, and the public, with a clear basis for choice among options (i.e., the proposal and alternatives). (40 C.F.R. § 1502.14.) Development of an accurate project description facilitates NEPA's intent to require "coherent and comprehensive up-front environmental analysis to ensure informed decision making" and to ensure "the agency will not act on incomplete information." (*Churchill County v. Norton*, 276 F.2d 1060, 1072-1073 (9th Cir. 2001) (citing *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1216 (9th Cir.1998)).) A clear, accurate description of the action also provides assurance to the public that the agency has considered all environmental concerns in the decisionmaking process. (*Kern v. United States Bureau of Land Management*, 284 F.3d 1062, 1066 (9th Cir. 2002).)

A. Reclamation Has Not Completed The SJRRP Recapture and Recirculation Plan

Reclamation has not completed a critical component of the SJRRP. It has not finalized the Recirculation and Recapture Plan. The Recirculation and Recapture Plan will define, among other components of the proposed action, the criteria to determine the volume of flows available for recapture, the facilities at which the water be will recaptured, and the priority of use for those facilities. Prior to completion of the Recirculation and Recapture Plan, Reclamation cannot fully and adequately describe all components of the proposed action and has not done so in the Draft EA. Indeed, Reclamation has acknowledged the incomplete nature of the Recirculation and Recapture Plan. By letter dated February 2, 2012, and attached hereto as **Exhibit C**, Reclamation transmitted to State Water Resources Control Board an incomplete draft of the Recirculation and Recapture Plan. The February 2 letter indicates there are several "critical items" outstanding that must be resolved before the plan can be completed. The letter further states Reclamation expects to "complete the Plan by August 1, 2012." Without the details that will be provided in the Recirculation and Recapture Plan, Reclamation cannot adequately support the conclusions and findings made in the Draft EA and Draft FONSI.

B. Other Critical Elements Of The Proposed Action Remain Undefined

Other elements of the Draft EA project description are sorely lacking in specificity. The Draft EA provides only the general parameters within which the proposed action will occur, without providing concrete details regarding how various elements will be carried out. The Draft EA merely provides that recaptured flows could be available to Friant contractors "as a result of exchanges with other Friant or non-Friant contractors" or that Friant contractors could "take delivery of recaptured water made available in SOD Facilities via a transfer with any of the Friant contractors." (Draft EA, pp. 12-13.) Noticeably absent from the description and therefore the analysis of its impacts of the propose action are the following:

- Descriptions of the deliver of recaptured water to each Friant Division contractor, including the quantity of water that will be delivered to each contractor, the facilities that will be used to make that delivery, and the timing of each delivery, and
- Descriptions of the exchanges or transfers that will occur, including, for each exchange and transfer, where the water will be used (for example, how will north of Delta contractors be involved in exchanges or transfers), the quantity of water involved, the facilities that will be used, and the timing when water will move.⁴

⁴ The Draft EA describes exchanges very generally, indicating that exchange under the SJRRP may extend beyond Water Year 2012, but not beyond Water Year 2017. (Draft EA, p. 12.) However, it provides no information regarding why exchanges will occur over this extended time period or how such exchanges will be structured.

These deficiencies in the project description, as well as another example of segmented analysis of impacts caused by the SJRRP, are demonstrated by the February 22, 2012, draft environmental assessment and initial study Reclamation prepared for the "Arvin-Edison Water Storage District and Metropolitan Water District 12-Month Water Exchange Project" (Exchange Project), a copy of which is attached hereto as **Exhibit D**. In that document, which is currently available for review and public comment, Reclamation proposes an action that would facilitate the exchange/transfer of up to 100,000 acre-feet of recaptured SJRRP water. (See Draft EA/IS for the Exchange Project, Section 2, p. 2.) However, the Draft EA does not describe the Exchange Project.

Another example of the deficiencies in the project description relates to an element of the proposed action that has not been proposed in prior years – the delivery of water to Friant Division Contractors before SJRRP water is recaptured. The Draft EA explains:

Through this mechanism, a calculation of the amount of water that is expected to be recaptured in SOD Facilities during peak Interim Flows would occur and would take into consideration water year type, channel capacity constraints, and operational criteria.

(Draft EA, p. 12.) The Draft EA appears to recognize the delivery of water prior to recapture places other water users at significant risk, and the Draft EA attempts to reduce that risk by explaining: "coordination would ensure that Reclamation's obligations to deliver water to other contractors, wildlife refuges, and other requirements would not be adversely impacted." (*Id.*) This general statement, while positive and appreciated by the Authority, is not sufficient. The Draft EA must provide more. The proposed action must describe how Reclamation will implement the proposed action without redirecting impacts. Coordination alone may not avoid adverse impacts resulting from reductions in the quantity or changes in the timing of water deliveries. The delivery of water prior to recapture could cause a re-operation of the San Luis Reservoir that impairs Reclamation's ability to deliver water to the Authority's member agencies.

As Reclamation is well aware, the San Luis Reservoir is one of California's largest reservoirs and a critical component of the Central Valley Project and State Water Project. Each year, water from Sacramento-San Joaquin River Delta is delivered to the San Luis Reservoir via the California Aqueduct and Delta-Mendota Canal for storage. This water is subsequently released, in part, for use by the Authority's member agencies. San Luis Reservoir "low point," which generally occurs in late summer, is an issue of operational concern that is addressed annually. Steps are taken as much as possible to avoid low point issues. When water levels in San Luis Reservoir reach low levels water quality becomes an issue due to algal blooms and the water becomes unsuitable for agricultural water users with drip irrigation systems and for municipal and industrial water users due to their inability to treat the water.

Advance delivery of water under the proposed action has the potential to increase the occurrences of San Luis Reservoir reaching its low point earlier in the year. Those results could occur from implementing the proposed action, for example, if Reclamation were to release water from San Luis Reservoir prior to low point that is not "replaced" until after low point or that would never have been released prior to low point. This concern is not hypothetical. Other than the general statement quoted above, nothing in the description of the proposed action would preclude Reclamation from releasing water from San Luis Reservoir with the hope that "debt" would be subsequently repaid with the recapture of water available under the SJRRP. Likewise, other than the general statement quoted above, nothing in the proposed action would preclude Reclamation from releasing water from San Luis Reservoir prior to low point that, absent the proposed action, would not be released until after San Luis Reservoir low point. The Draft EA must include in the description of the proposed action an explanation

of how Reclamation will avoid adverse changes in the quantity and timing of water deliveries to the wildlife refuges and contractors other than those within the Friant Division.

III. Draft EA Fails To Identify And Analyze Impacts Of The Proposed Action

NEPA requires discussion and analysis of the environmental impacts of the proposed action and any alternatives, including any unavoidable adverse environmental effects. (40 C.F.R. § 1502.16.) The Settlement Act similarly requires Reclamation to identify the impacts associated with proposed actions under the SJRRP. (See Settlement Act, § 10004(d)(1).) Due to the incomplete nature of the project description and the segmentation of the analysis of the SJRRP, as described above, potential environmental impacts of the proposed action are not identified or analyzed in the Draft EA. Simply put, the Draft EA cannot consider impacts of components of the proposed action that are not identified or completely described therein. Evidence of the inadequate impacts analysis is the fact that, of the 73 pages that comprise the Draft EA, only 10 pages are dedicated to discussion of the proposed action's impacts – a proposed action that involves the recapture, recirculation, exchange and transfer of up to 260,000 acre-feet of water.

In sum, before Reclamation can implement the proposed action, it must be able to completely and accurately describe the proposed action. Without a clear and accurate description of the proposed action, Reclamation has not and cannot identify the environmental impacts of the proposed project or make necessary conclusions and findings.

Sincerely,



Jon D. Rubin

cc: Daniel Nelson, Executive Director, San Luis & Delta-Mendota Water Authority

Exhibit A – July 16, 2010 Comment Letter
Exhibit B – March 25, 2011 Comment Letter
Exhibit C – February 2, 2012 Letter to State Water Board
Exhibit D – February 2012 EA/IS

EXHIBIT A



JOHN V. "JACK" DIEPENBROCK
KAREN L. DIEPENBROCK
KEITH W. McBRIDE
BRADLEY J. ELZIN
EILEEN H. DIEPENBROCK
MARK D. HARRISON
GENE H. CHEEVER
LAWRENCE D. GARCIA
ANDREA A. MATARAZZO
JOEL PATRICK ERB
JOHN D. RUBIN
JEFFREY K. DORSO
JENNIFER L. DAUER
SEAN H. HUNGERFORD
CHRIS A. MCCAMBLESS
DAVID A. DIEPENBROCK
DAVID P. TEHLADOR

JEFFREY L. ANDERSON
LEONOR Y. MORGAN
JULIE Y. REISER
DAN M. SILVERBOARD
JONATHAN R. MARZ
TALLIE C. KIMCAID
JOHN R. GARNER
COURTNEY K. FRIEN
ANTHONY J. COATEZ
BRADLEY R. JOHNSON

MICHAEL A. HANLEY, Of Counsel

R. JAMES DIEPENBROCK
(1929 - 2002)

July 16, 2010

**Via Electronic Mail (InterimFlows@restoresjr.net)
And U.S. Mail**

Michelle Banonis
Natural Resources Specialist
U.S. Bureau of Reclamation
2800 Cottage Way, MP-170
Sacramento, CA 95825-1898

**Re: Draft Environmental Assessment and Draft Finding of No Significant
Impact for the Recirculation of Recaptured 2010 San Joaquin River
Restoration Program Interim Flows**

Dear Ms. Banonis:

The San Luis & Delta-Mendota Water Authority ("Authority") submits the following comments on the Draft Environmental Assessment and Draft Finding of No Significant Impact ("Draft EA/Draft FONSI") for the Recirculation of Recaptured 2010 San Joaquin River Restoration Program Interim Flows ("Proposed Project").

As indicated in our comment letter dated July 20, 2009, regarding the draft environmental assessment, proposed finding of no significant impact, initial study, and draft mitigated negative declaration for the San Joaquin River Restoration Program's Water Year 2010 Interim Flows Project, which we incorporate by reference, the Authority supports the Stipulation of Settlement in *Natural Resources Defense Council, et al. v. Kirk Rogers, et al.* ("Settlement") and actions taken consistent with the legal mandates and authorities provided under the San Joaquin River Restoration Settlement Act, Public Law 146-359 ("Act"). The Authority's support extends to the Proposed Project.

The Draft EA/Draft FONSI explains the purpose and need for the Proposed Project are to (1) implement the provisions of the Settlement pertaining to the Water

400 CAPITOL MALL
SUITE 1800
SACRAMENTO, CA 95814

WWW.DIEPENBROCK.COM 916 492.5000
FAX: 916 446.4535

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Natural Resources Specialist
U.S. Bureau of Reclamation
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Management Goal for the WY 2010 Interim Flows", and (2) "reduce or avoid water supply impacts to Friant Division long-term contractors by providing mechanisms to ensure that recirculation, recapture, reuse, or transfer of Interim Flows occurs." WY 2010 Draft EA/FONSI/IS/MND, p. 1. The statement of purpose and need must be read in the context of the larger terms and conditions of the Settlement and the Act, which require Reclamation, and other parties to the Settlement, to avoid harm the Authority's member agencies, as well as other third parties for which protection is intended under the Settlement and the Act. (See, e.g., Act, Public Law 146-359, § 10004).

The Draft EA/Draft FONSI implicitly acknowledge implementation of the Settlement, and specifically the Proposed Project, cannot cause harm. It does so by appropriately identifying no impact to the Authority's member agencies. Given its importance to the success of the Settlement, the final EA/FONSI should state clearly and explicitly that implementation of the Settlement or any part thereof will not harm to the Authority's member agencies and other third parties.

Further, the Authority and its members recognize Reclamation has not yet developed all of the monitoring programs or analytical tools needed to protect the Authority's member agencies, as well as others, from harm caused by implementation of the Settlement. Until those programs and tools have been developed, there remains significant risk regarding implementation of the Settlement. It is therefore critical that the approach to the effects analysis that Reclamation has taken in the Draft EA/Draft FONSI guides monitoring and analyses. In other words, Reclamation must develop programs and tools that allow for a comparison of the "no settlement conditions" with conditions when the Settlement (or an element thereof) is implemented. Only that type of comparison will ensure implementation of the Settlement does not adversely affect the Authority's member agencies.

For the reasons stated above, the Authority requests that Reclamation insert into the final EA/FONSI the following language: "Reclamation will not implement the Proposed Project in a manner that will adversely affect third parties. Reclamation will assess effect based upon a comparison of conditions with and without implementation of the Proposed Project."

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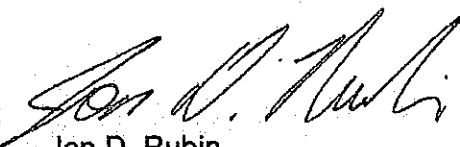
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Natural Resources Specialist
U.S. Bureau of Reclamation
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Thank you for your consideration of the comments.

Very truly yours,

DIEPENBROCK HARRISON
A Professional Corporation

By:



Jon D. Rubin

Attorneys for the San Luis & Delta-Mendota
Water Authority

cc: Daniel Nelson, Executive Director
San Luis & Delta Mendota Water Authority

EXHIBIT B



JOHN V. "JACK" DIEPENBROCK
BARBARA L. DIEPENBROCK
KEITH W. MCBRIDE
BRADLEY J. ELKIN
EILEEN M. DIEPENBROCK
MARK D. NARJISON
GENE K. CHEEVER
ANDREA A. NATARAZZO
JOEL PATRICK END
JON D. RUMIN
JEFFREY L. DOASO
JENNIFER L. DAUER
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ANTHONY J. CORTEZ
BRADLEY B. JOHNSON

R. JAMES DIEPENBROCK
(1929 - 2002)

March 25, 2011

Via Electronic Mail and U.S. Mail
mbanonis@usbr.gov

Ms. Michelle Banonis
Bureau of Reclamation
2800 Cottage Way, MP-170
Sacramento, CA 95825

Re: *San Luis & Delta-Mendota Water Authority's Comments on Draft
EA/FONSI for Recirculation of Recaptured Water Year 2011 San Joaquin
River Restoration Program Interim Flows*

Dear Ms. Banonis:

I write on behalf of the San Luis & Delta-Mendota Water (Authority). The Authority has been very supportive of the San Joaquin River Restoration Program; provided it is implemented consistent with the law. Consistent with that approach, the Authority presents the following comments on the draft environmental assessment for the recirculation of recaptured Water Year 2011, San Joaquin River Restoration Program, Interim Flows (Draft EA) and draft finding of no significant impact (Draft FONSI), because the Draft EA and Draft FONSI do not meet the minimum legal requirements imposed by the National Environmental Policy Act. Specifically, the Draft EA improperly segments the federal action, and, when the whole of the action is considered, the Draft EA does not reflect an accurate or complete description of the action. As a result, the Draft EA and Draft FONSI do not adequately present or consider the overall effect of the proposed action. The Authority hopes that Reclamation will cure those defects and recirculate the Draft EA and Draft FONSI for additional public comment.

400 CAPITOL MALL
SUITE 1800
SACRAMENTO, CA 95814

WWW.DIEPENBROCK.COM 916 492.5000
FAX: 916 446.4535

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Reclamation Has Improperly Segmented The Interim Flow and Recapture/Recirculation Components Of The San Joaquin River Restoration Program

The proposed action, as that term is defined by the NEPA, is implementation of the San Joaquin River Restoration Program (SJRRP) during Water Year 2011. The SJRRP includes two components, Reclamation (1) releasing water from Friant Dam to meet the "interim flow" schedule, and (2) Reclamation recirculating and recapturing those flows for the benefit of the Friant Division long-term contractors. Unfortunately, analyses in the Draft EA and Draft FONSI are arbitrarily limited to the second element. The Draft EA and Draft FONSI only consider the environmental effects of making the recirculated and recaptured water available to the Friant Division long-term contractors. Such a narrow scope is contrary to law.

Agencies may not segment a major federal action into smaller components to avoid either the application of NEPA, or the preparation of a more detailed assessment of the environmental effects of the overall federal action. (*Coal. on Sensible Transp., Inc. v. Dole*, 826 F.2d 60, 68 (D.C. Cir. 1987)(citing *Taxpayers Watchdog, Inc. v. Stanley*, 819 F.2d 294, 298 (D.C. Cir. 1987).) "Segmentation is to be avoided in order to insure that interrelated projects, the overall effect of which is environmentally significant, not be fractionalized into smaller, less significant actions." (*Town of Huntington v. Marsh*, 859 F.2d 1134, 1142 (2nd Cir. 1988).)

Indeed, to minimize the threat of segmentation, the Council of Environmental Quality's NEPA Regulations contain detailed requirements pertaining to the scope of actions that must be considered. An environmental document must consider "connected actions," "cumulative actions," and "similar actions." (40 C.F.R., § 1508.25.) Actions are "connected" and must be considered in a single environmental document if they: (1) automatically trigger other actions which may require environmental impact statements; (2) cannot or will not proceed unless other actions are taken previously or simultaneously; or (3) are interdependent parts of a larger action and depend on the larger action for their justification. (40 C.F.R., § 1508.25 (a)(1)(i)-(iii).) The Ninth Circuit Court of Appeals applies an "independent utility" test to determine whether multiple actions are so connected as to mandate consideration in a single environmental document. (*Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 969 (9th Cir. 2006).) The crux of the test is whether "each of two projects would have taken place with or

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without the other and thus had 'independent utility.'" (*Ibid.* (citing *Wetlands Action Network v. U.S. Army Corps of Eng'rs*, 222 F.3d 1105, at 1118 (9th Cir. 2000)). See also *Baykeeper v. United States Army Corps of Eng'rs*, 2006 U.S. Dist. LEXIS 67483 (E.D. Ca. 2006); *Stewart Park & Reserve Coalition, Inc. v. Slater*, 352 F.3d 545 at 559 (2nd Cir. 2003)(under independent utility test, "[a] project has been improperly segmented...if the segmented project has no independent utility, no life of its own, or is simply illogical when viewed in isolation").)

In this case, there can be no reasonable dispute that in 2011 provision of interim flows and the recapture and recirculation of those flows are connected. There is no water to recapture and recirculated without the interim flows. (Draft EA, p. 8 (explaining the Draft EA considers "water stored in [San Luis Reservoir] or Millerton Lake as a result of WY 2011 Interim Flows"(emphasis added)).) Those two elements result from a single settlement agreement and a single act of Congress – the San Joaquin River Restoration Settlement Act. (See Draft EA, p. 1.) Consistent with that, Reclamation, through a single process, petitioned the State Water Resources Control Board to modified Reclamation's water rights to allow it to implement both components of the proposed action. (See State Water Board Order WR 2010-0029-DWR, Order 2011-0001-EXEC.)¹ And, if that were not enough to demonstrate the interrelated nature of the interim flow and the recirculation and recapture of that water, Reclamation concedes the point. In the Draft EA, Reclamation writes: "Interim Flows and their associated actions are directly related to the availability of water for recirculation back to the Friant Division long term contractors." (Draft EA, p. 2.) For all of these reasons, Reclamation has unlawfully segmented two elements of the same action. Accordingly, the Draft EA and Draft FONSI do not meet minimum standards set by NEPA.

Reclamation may argue that it cures the segmentation defect by incorporating by reference the Water Year 2011 Interim Flows Project Draft Supplemental Environmental Assessment, Water Year 2011 Interim Flows Project Final Supplemental Environmental Assessment, and related Finding of No Significant Impact. (Draft EA, p. 2.) That attempt, however, would fail. Reclamation does not use the analyses from those prior documents in the Draft EA. Instead, it asks the public to deduce which segments of those prior documents are relevant to and how the analyses add up in the Draft EA and Draft FONSI. Such an approach violates both the spirit and letter of NEPA. (See *City of Carmel-By-The Sea v. United States DOT*, 1998 U.S. Dist. LEXIS 21441 (ND. Cal 1998).)

¹ Attached hereto are copies of Order WR 2010-0029-DWR and Order 2011-0001-EXEC, which are hereby incorporated herein by this reference.

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When The Whole Of The Action Is Considered, The Draft EA And Draft FONSI Fail To Provide An Accurate Description Of The Propose Action

Reclamation has not yet developed important elements of the SJRRP. Most important, Reclamation has not completed its plan for recirculation, recapture, reuse, exchange or transfer of flows provided under the SJRRP. Without that plan, Reclamation cannot adequately describe the proposed action and has not done so in the Draft EA. As a result, Reclamation does not and accurately discuss or analyze impacts of the propose action. It does not and cannot determine if its Draft EA presents a reasonable range of alternatives. And, it does not and cannot adequately support conclusions and findings made in the Draft EA and Draft FONSI,

Under NEPA, an agency must provide an accurate description of the proposed action. An accurate description is necessary to ensure the proposed action's environmental impacts are accurately disclosed and analyzed, and to define the range of alternatives to the proposed action. (See 40 C.F.R., §§ 1502.13 (requiring EIS to contain a statement of purpose and need for the proposed action); 1502.14 (requiring an EIS to "rigorously explore and evaluate" alternatives to the proposed action and the environmental consequences of the action); 1502.16 (requiring the EIS to disclose the proposal's environmental consequences).) As interpreted by the United States Court of Appeals, Ninth Circuit, NEPA requires a full evaluation of site-specific impacts "when a critical decision has been made to act...i.e., when the agency proposes to make an irreversible and irretrievable commitment of the availability of resources to [a] project at a particular site." (*Friends of Yosemite Valley v. Norton*, 348 F.3d 789 at 801-802 (9th Cir. 2003).) The determination of whether a 'critical decision' has been made begins with an accurate description of the [agency's] proposed action." (*Aberdeen & R. R. Co. v. Students Challenging Regulatory Agency Procedures et al.*, 422 U.S. 289, 322 (1975).)

Reclamation is preparing a plan for recirculation, recapture, reuse, exchange or transfer of interim flows. That plan will define, among other things, the criteria to determine the volume of interim flow available for recapture, the pumping facilities where the water will be recaptured, and the priority of use for those facilities. It will also determine priority of use for facilities in which Reclamation might store the recaptured interim flows. At this time, however, Reclamation has not completed that plan. Reclamation therefore has no basis to draw conclusions and make findings presented in the Draft EA and Draft FONSI, including the conclusion that the propose action "would not increase or decrease existing [Central Valley Project] or [State Water Project]

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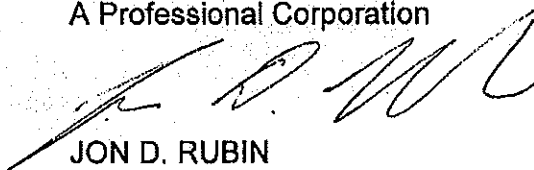
allocations," and the conclusion that "[w]ater moved through this process would not require additional diversions and would not impact the overall existing operation of the water districts or their facilities." (Draft EA, p. 41.)

In sum, before Reclamation can implement the proposed action, it must be able to completely and accurately describe the proposed action. Important elements of the proposed action have not been developed. Thus, Reclamation cannot define all aspects of the proposed action. Without a clear and accurate description of the proposed action, Reclamation has not and cannot identify the environmental impacts of the propose project, identify a reasonable range of alternatives, or make necessary conclusions and findings.

The Authority looks forward to reviewing a revised and recirculated Draft EA and Draft FONSI.

Very truly yours,

DIEPENBROCK HARRISON
A Professional Corporation

A handwritten signature in black ink, appearing to read 'J. D. Rubin', is written over the printed name.

JON D. RUBIN
Attorneys for the San Luis & Delta-Mendota Water
Authority

JDR:jis

EXHIBIT C



United States Department of the Interior

BUREAU OF RECLAMATION
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, CA 95825-1898

IN REPLY REFER TO:

MP-170
PRJ-1.00

FEB 02 2012

Ms. Barbara L. Evoy
Deputy Director for Water Rights
Attention: Ms. Katherine Mrowka
State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812-2000

Subject: San Joaquin River Restoration Program (SJRRP) Compliance with Conditions 4, 7, and 13 of the State Water Resources Control Board (State Board) Order Dated September 30, 2011, Applications 234, 1465, and 5638, Friant Division, Central Valley Project.

Dear Ms. Evoy:

On September 30, 2011, we received a Water Rights Order (Order) from the State Board for the Water Year (WY) 2012 Interim Flows Project (Project). The Order includes a series of conditions that the Bureau of Reclamation is to implement in carrying out the Project. This letter reports on activities in compliance with Conditions 4, 7, and 13 of the Order.

Condition 4 of the Order states: "Reclamation shall complete and submit to the Deputy Director for Water Rights the Recirculation Plan by February 1, 2012." In February 2011, we largely completed the enclosed Plan for the Recirculation, Recapture, Reuse, Exchange, or Transfer of Interim and Restoration Flows (Plan). This Plan was prepared in coordination with the Friant Water Authority, Friant Division long-term contractors, San Luis & Delta-Mendota Water Authority, San Joaquin River Exchange Contractors Water Authority, and the Natural Resources Defense Council. Although this Plan was largely complete, the parties were not able to agree upon a few critical items, the most significant was whether the reduction in the ability to recapture flood flows at Mendota Dam constituted an involuntary reduction in water supply allocations to the west side Central Valley Project contractors consistent with Section 10004(a)(4) of the San Joaquin River Restoration Settlement Act. Discussions on completing the Plan have been on hold pending Reclamation's decision on this issue.

We have worked diligently this past year to resolve this issue. Our intention was to complete this effort some time ago, but we have not completed our analysis to date. Pending resolution of several issues, we expect to make a final decision by February 29, 2012. We will notify the parties and the State Board of our decision on or before February 29, 2012.

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With this final decision, we will engage the parties to complete the Plan. We expect to complete the Plan by August 1, 2012. Until such time as the Plan is complete, Reclamation will continue to operate consistent with the February 2011 version of the Plan.

Condition 7 of the Order states:

“As part of implementing the Seepage Monitoring Plan, Reclamation shall publish the then-current well locations, monitoring/buffer groundwater thresholds, and proposed process for development of and updates to action thresholds on the SJRRP website by January 10, 2012 for public review and comment and shall also provide this information to the Division. In the event that written comments are submitted within 20 calendar days, Reclamation shall consider these comments and provide written responses, which may include revisions to the thresholds, by March 1, 2012. Comments, responses, and then-current thresholds shall be published on the SJRRP website by March 1, 2012, and also provided to the Deputy Director for Water Rights for review, modification and approval. Recognizing that many factors contribute to groundwater elevations, Reclamation shall manage Interim Flows to avoid exceeding an action threshold to the extent possible. In addition, and prior to January 10, 2012, Reclamation shall publish on the SJRRP website the location of all new monitoring wells installed in 2011 and its plans for installation of additional monitoring wells in 2012, including proposed well locations and estimated timelines for installation. Plans for installation of new monitoring wells shall include surveying well locations.”

The enclosed memo requesting comments on the groundwater thresholds that are included in Appendix H to the Seepage Management Plan (March 28, 2011), was posted on the SJRRP website at www.restoresjr.net/flows/Groundwater/index.html on January 10, 2012. Appendix H includes monitoring thresholds to identify groundwater levels of concern and buffer zones to add a safety factor for protecting crop root zones. It also includes the proposed process for development of and updates to action thresholds. The thresholds were developed in coordination with the Seepage and Conveyance Technical Feedback Group and have not changed since the March 28, 2011 version of the Seepage Management Plan. Appendix H is enclosed, consistent with the requirement in Condition 7 of the Order to provide this information to the State Board. No comments were received on the groundwater thresholds.

Current well locations can be found in the Monitoring Well Atlas available on the SJRRP website at www.restoresjr.net/flows/groundwater/groundwater.html. In 2011, we installed 35 additional monitoring wells in Reaches 2A through 4B1. The locations of these wells are provided in the Monitoring Well Atlas. At this time, we do not have plans to install additional monitoring wells in 2012. As additional information becomes available, or if landowners identify areas of concern that are not covered by the existing monitoring well network, we may install additional monitoring wells. In the event that additional wells are installed, we will publish the locations and timelines on the SJRRP website. Our monitoring well network

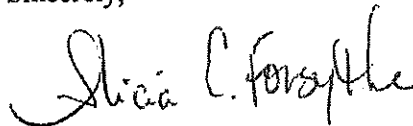
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(including private landowner and irrigation district wells that we may also monitor) includes more than 150 wells in all reaches of the river.

Condition 13 states: "Prior to February 1, 2012, Reclamation shall document that it has either entered into or attempted to enter into a continuous operations and maintenance agreement, or comparable funding mechanism, that accounts for increased operations and maintenance costs of CCID, SLCC, and the Levee District associated with the Interim Flows Program." We entered into a financial assistance agreement with the Lower San Joaquin Levee District during WY 2011 and are currently pursuing extension of time and funding to cover WY 2012 activities. We are also working on completing an agreement with the Central California Irrigation District to provide funding to retrofit Mendota Dam with automated sluice gates to improve the precision of operations to pass Interim Flows. We provided financial assistance to the San Luis Canal Company to retrofit Sack Dam with automated gates in May 2011. We also continue to work on the Arroyo Canal Fish Screen and Sack Dam Fish Passage Project, which will completely replace and/or retrofit the San Luis Canal Company's water diversion facilities on the San Joaquin River. We expect to start construction on this project in early 2013.

We appreciate your continued efforts as we work to implement the Settlement, consistent with Public Law 111-11 and the Order. If you have any questions, please feel free to contact me at 916-978-5464 or aforsythe@usbr.gov.

Sincerely,



Alicia E. Forsythe
Program Manager

Enclosures (3)

EXHIBIT D

RECLAMATION

Managing Water in the West

Draft Environmental Assessment/Initial Study

Arvin-Edison Water Storage District and Metropolitan Water District 12-Month Water Exchange Project

EA11-085



U.S. Department of the Interior
Bureau of Reclamation
Mid Pacific Region
South-Central California Area Office
Fresno, California

Arvin-Edison Water Storage District
PO Box 175
Arvin, CA 93293-0175

February 2012

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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List of Acronyms and Abbreviations

AEWSD	Arvin-Edison Water Storage District
AF	acre-feet
APE	area of potential effects
Aqueduct	California Aqueduct
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
cfs	cubic-feet per second
CO	carbon monoxide
CO ₂	carbon dioxide
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CPOU	Consolidated Place of Use
CVC	Cross Valley Canal
CVP	Central Valley Project
DWR	Department of Water Resources
EA	environmental assessment
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FKC	Friant-Kern Canal
FONSI	Finding of No Significant Impact
FWCA	Fish and Wildlife Coordination Act
GHG	green house gases
ITA	Indian Trust Assets
IS	Initial Study
KCWA	Kern County Water Agency
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MWD	Metropolitan Water District of Southern California
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
National Register	Nation Register of Historic Places
ND	Negative Declaration
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
O ₃	ozone
PM _{2.5}	particulate matter less than 2.5 microns in diameter
PM ₁₀	particulate matter between 2.5 and 10 microns in diameter
Program	Water Management Program between AEWSD and MWD
Reclamation	Bureau of Reclamation
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SJRRP	San Joaquin River Restoration Program
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District

SLR	San Luis Reservoir
SO ₂	sulfur dioxide
SWP	State Water Project
SWRCB	State Water Resources Control Board
USFWS	U.S. Fish and Wildlife Service
U.S.C.	U.S. Code

Section 1 Introduction

This Environmental Assessment/Initial Study (EA/IS) has been prepared in accordance with the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA), respectfully, to analyze and document potential direct, indirect and cumulative environmental impacts from a proposed water exchange by Arvin-Edison Water Storage District (AEWSD) and Metropolitan Water District of Southern California (MWD), collectively referred to as Districts. The Districts are proposing an action that would:

- 1) Deliver AEWSD's Central Valley Project (CVP) water to MWD in exchange for previously banked MWD State Water Project (SWP) water in order to reduce energy use and associated costs from groundwater pumping (note: MWD delivers to AEWSD first);
- 2). Deliver AEWSD's CVP water to MWD during times of when AEWSD supplies exceed current demand after which MWD would return a like amount of SWP water, metered at the California Aqueduct (Aqueduct) to AEWSD later in the 12-month period.

Both actions would require a temporary change to the Bureau of Reclamation's (Reclamation) Consolidated Place of Use and Friant Division Place of Use (CPOU) through petition of the State Water Resources Control Board, which is currently under review and is beyond the scope of this document.

This EA/IS was jointly prepared by Reclamation as the lead federal agency and AEWSD as the lead state agency. AEWSD and MWD have requested Reclamation's approval for the proposed exchange of AEWSD's CVP water for MWD's SWP water (including previously banked SWP water).

Reclamations action is to approve the exchange involving up to 100,000 acre-feet (AF) of CVP water.

1.1 Background

In December 1997, AEWSD entered into a long-term Water Management Program (Program) with MWD. Under the Program, up to 350,000 acre-feet (AF), after a 10 percent loss is applied, of MWD's State Water Project (SWP) supply could be banked within AEWSD's groundwater bank at any one time. Upon request, AEWSD would return MWD's previously banked SWP water. This would typically occur during certain dry hydrological periods when MWD needs to supplement its water supply.

In December 2009 Reclamation approved an EA/FONSI to deliver of up to 40,000 AF per year of AEWSD's Central Valley Project (CVP) supplies to MWD in-lieu of pumping with the return of a like-amount of MWD's previously banked SWP supplies under the Program. In September 2010, Reclamation approved an EA/FONSI for similar exchanges.

This Proposed Action is similar to the exchange approved in 2009 and 2010, which was made possible due to the temporary consolidation of the CVP and SWP places-of-use and points-of-diversion from June 2009 to October 2011.

1.2 NEPA Purpose and Need/CEQA Project Objectives

The need for the Proposed Action is two-fold:

- **Return of Banked Water:** AEWSD has historically extracted MWD's previously banked SWP supplies from their groundwater bank and delivered those supplies back to MWD. This return mechanism, while effective, has associated high energy use (pumping cost) and operation and maintenance costs as well as the increased need for water quality management and associated cost. In the event that MWD requests a return of water during the 12-month period, AEWSD desires the flexibility to send a portion of their CVP water to MWD in lieu of, and in exchange for, MWD's previous banked SWP water stored in AEWSD's groundwater bank. This exchange is proposed to occur only within the timeframe specified in the petition for the CPOU, typically a 12-month period, and only to the extent MWD has water in storage in AEWSD.

These same actions have been employed the last three water years whereby AEWSD substituted and exchanged approximately 115,000 AF of AEWSD CVP surface water for previously banked MWD SWP water. This resulted in an effective and efficient water management program.

- **Regulation of AEWSD CVP Supplies:** A large part of AEWSD's contract supplies consist of CVP water that cannot be stored and regulated by Reclamation to meet irrigation demand so it must be delivered during wet conditions, often during high-flow, short-duration periods (such as Uncontrolled Season periods). Subsequently, AEWSD is also in need of the ability to temporarily store CVP water with MWD during these periods and have MWD return the water to AEWSD on a usable schedule (within a 12-month period) that preferably will offset irrigation demand or extend spreading periods. This exchange is proposed to occur only within the timeframe specified in the CVP CPOU petition.

The purpose of the Proposed Action is twofold:

- **Delivery of Surface Water:** Provide for the expeditious and timely delivery of surface water supplies available to AEWSD in lieu of groundwater it otherwise would have pumped and delivered to MWD in fulfilling its return water obligations to MWD under the Program, and in allowing AEWSD to temporarily store water with MWD for return later within a 12-month period thereby making more efficient use of its contract water supplies.
- The Proposed Action would serve to reduce energy use, pumping and operation costs, enhance water quality, and provide overall water management flexibility to AEWSD.

1.3 Scope/ Project Location and Setting

This is a joint document completed to satisfy compliance with both NEPA and CEQA. As such, Section 3 addresses the NEPA Affected Environment and Environmental Consequences while Section 4 addresses the CEQA Environmental Factors Potentially Affected. Under NEPA, a determination of significant impacts to the environment considers the action in its entirety. Under CEQA, a determination of significant impacts to the environment considers each resource individually.

AEWSD is located on the southern end of the San Joaquin Valley in Kern County and MWD is located in Southern California (Figure 1-1).

1.4 Reclamation's Legal and Statutory Authorities and Jurisdiction Relevant to the Proposed Federal Action

Several Federal laws, permits, licenses and policy requirements have directed, limited or guided the NEPA analysis and decision-making process of this EA/IS and include the following as amended, updated, and/or superseded (all of which are incorporated by reference):

- The Reclamation Reform Act of 1982 applies to all irrigation land within an irrigation/water district, which has a water service or repayment contract with Reclamation and is subject to the acreage limitation and full-cost provisions of Reclamation law, however, as a result of AEWSD's Repayment Contract and full payment of the Repayment Obligation there under, the acreage limitation and full cost provisions of Reclamation law would not apply to the water subject to this proposed exchange.
- Reclamation and United States Fish and Wildlife Service (USFWS) Regional, Final Administrative Proposal on Water Transfers April 16, 1998.

1.5 Related Environmental Documents

In June 2009 (EA-09-97) and July 2010 (EA-10-38), Reclamation prepared an EA to approve the delivery of up to 40,000 AF per year of AEWSD's 2009, 2010 and 2011 CVP supplies to MWD in-lieu of pumping and returning a like-amount of MWD's previously banked SWP supplies within AEWSD's groundwater bank under the Program. A Finding of No Significant Impact (FONSI) was signed in July 2009, December 2009 (augmenting July 2009), and September 2010, respectively, to approve the exchange; both EA's and FONSI's are hereby incorporated by reference (Reclamation 2009 and Reclamation 2010). The Proposed Action is similar to the exchange approved in 2009 and 2010, which was made possible due to the temporary consolidation of the CVP and SWP places-of-use and points-of-diversion from June 2009 to October 2011.

As part of the San Joaquin River Restoration Program (SJRRP), Reclamation, as the lead agency under the National Environmental Policy Act (NEPA), and the California Department of Water Resources (DWR), as the lead agency under the California Environmental Quality Act (CEQA) prepared an Environmental Assessment/Initial Study (EA/IS) to evaluate activities necessary to

convey the flows in the San Joaquin River from Friant Dam to the Sacramento-San Joaquin Delta (Delta), and to conduct data collection and monitoring activities during Interim Flow releases during Water Year (WY) 2010. Reclamation approved the Finding of No Significant Impact (FONSI) and DWR adopted the Mitigated Negative Declaration (MND) on September 25, 2009. A Draft Supplemental EA for WY 2011 Interim Flows was prepared and the Final Supplemental EA for WY 2011 Interim Flows and signed Finding of No Significant Impact was issued on September 21, 2010. A Draft Supplemental EA for WY 2012 Interim Flows was prepared and the Final Supplemental EA for WY 2012 Interim Flows and signed Finding of No Significant Impact was issued on September 30, 2011.

In order to return the 2011 recaptured interim flows stored in SLR back to the Friant Division CVP contractors, Reclamation prepared an EA to analyze potential transfer and exchange scenarios to make up to 260,000 AF available from Millerton Lake as Class 1 or Class 2 CVP water supplies. A Final EA was completed and a FONSI was signed on May 24, 2011, and both are hereby incorporated by reference (Reclamation 2010b).

1.6 Potential Issues

This EA/IS will analyze the affected environment of the Proposed Action in order to determine the potential direct, indirect, and cumulative impacts to the following resources: Water Resources, Land Use, Biological Resources, Cultural Resources, Indian Trust Assets (ITA), Socioeconomic Resources, Environmental Justice, Air Quality, Global Climate, Aesthetics, Agricultural Resources, Geology and Soils, Hazards and Hazardous Materials, Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Utilities and Service Systems.



Figure 1-1 Proposed Action Location

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Section 2 Section 2 Alternatives Including the Proposed Action

This EA/IS considers two possible actions: the No Action Alternative and the Proposed Action. The No Action Alternative reflects future conditions without the Proposed Action and serves as a basis of comparison for determining potential effects to the human environment.

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not approve the exchange of AEWS's CVP water for MWD's SWP water. AEWS would still be able to pump MWD's previously stored SWP water within AEWS's groundwater bank and deliver it to MWD via the Aqueduct as originally arranged and analyzed under the ND for the Program but will not be able to reduce energy use as contemplated by the Proposed Action. In addition, AEWS would not have the ability to capture and regulate wet year type supplies that would help offset groundwater extraction and/or have supplies for irrigation or recharge later in the year. MWD would not get the Friant CVP water and the associated water quality benefits.

2.2 Proposed Action

There are two components to the Proposed Action. The first component involves the exchange of AEWS CVP water for previously banked MWD SWP water that was delivered to AEWS.

AEWS's CVP supplies from Millerton Lake would be conveyed down the Friant-Kern Canal (FKC) towards its terminus and diverted into:

- The FKC/Cross Valley Canal (CVC) Intertie at milepost 151.70 and subsequently into the CVC and the Aqueduct;
- AEWS's Intake Canal facilities via AEWS's FKC turnout at milepost 151.80 for subsequent delivery into the CVC (note AEWS also has a direct connection into the CVC);
- AEWS's South Canal and Intertie Pumping Plant and subsequently into the Aqueduct.

Once in the CVC or AEWS's facilities, the water would be introduced into the Aqueduct at existing diversion points and ultimately delivered to MWD.

AEWS's CVP supplies from SLR, if utilized, would be conveyed to the CVC/Tupman turnout, or down the San Luis Canal/Aqueduct and to MWD's service area by the Department of Water Resources (DWR).

Reclamation proposes to approve AEWS D's request to exchange a portion of its CVP water supply for a like-amount (bucket-for-bucket) of MWD's SWP supply (including previously banked). The delivery of up to 100,000 AF from AEWS D to MWD could include the following CVP water types:

- Class 1;
- Class 2;
- Recovered Water Account;
- Recaptured SJRRP Interim Flows (including those supplies made available through transfers/exchanges as analyzed in the 2010, 2011 and 2012 EA for recirculation of recaptured interim flows);
- Section 215 water supplies, to the extent Section 215 water is declared by Reclamation and is available to AEWS D.

In order to complete the exchange, the banked SWP water that would have been pumped and returned to MWD would change in ownership from MWD to AEWS D and remain within AEWS D's groundwater bank.

The second component of the Proposed Action involves the delivery of AEWS D CVP water to MWD and the subsequent return from MWD to AEWS D during the approved CPOU timeframe . The conveyance facilities and type of water would be the same as listed above.

The Proposed Action is contingent upon approval by the SWRCB to temporarily consolidate the CVP places-of-use (CPOU) for a 12-month period, and would only occur during the timeframe for which the CPOU is in effect.

In addition, the Proposed Action would include the following commitments:

- No native or untilled land (fallow for 3 consecutive years or more) would be cultivated with the water involved in these actions;
- No new construction or modification of existing facilities would be required;
- Exchange involving CVP and SWP facilities, and the CVC would be required to obtain the applicable approval/permission so as not to hinder the respective normal operations and maintenance of the facilities;
- Exchange involving CVP and SWP facilities, and the CVC would be required to schedule accordingly with Reclamation, DWR and the Kern County Water Agency (KCWA), respectively, so as not to hinder their respective obligations to deliver water to contractors, participants, wildlife refuges, and to meet regulatory requirements;
- In continuance of commitments from the Program, existing Aqueduct Pump-in Facilitation Group guidelines would be followed by both AEWS D and KCWA when introducing water into the Aqueduct to insure that water quality would not be adversely impacted; and
- Exchange involving CVP and SWP water cannot alter the flow regime of natural water bodies such as rivers, streams, creeks, ponds, pools, wetlands, etc., so as to not have a detrimental effect on fish or wildlife, or their habitats.

Section 3 NEPA Affected Environment and Environmental Consequences

This section of the EA/IS includes the NEPA analysis portion of the potentially affected environment and the environmental consequences involved with the Proposed Action and the No Action Alternative.

3.1 Water Resources

3.1.1 Affected Environment

AEWSD/MWD Water Management Program

Under the AEWSD/MWD Water Management Program, AEWSD agreed that MWD would be able to deliver a minimum of 277,778 AF (which equates to approximately 250,000 AF after a 10 percent loss factor is applied) to AEWSD. It was also anticipated that MWD would cycle water through the Program, and at AEWSD's discretion, MWD would be able to store up to 388,889 AF (which equates to approximately 350,000 AF after a 10 percent loss factor is applied) at any one time in AEWSD's groundwater bank. In order to facilitate the Program, AEWSD constructed facilities including 500 acres of new spreading works, 15 new groundwater wells, a 4.5-mile bi-directional pipeline connecting the terminus of AEWSD's South Canal with the Aqueduct and recently expanded its South Canal capacity as well as made improvements/structures in the last 9 miles of canal for the ability to "reverse flow" the canal and assist in operational flexibility. These new facilities are used in conjunction with AEWSD's existing facilities and distribution system to manage the Program.

The Program has operated successfully for nearly 15 years resulting in benefits for both AEWSD and MWD. For AEWSD, the Program has generated revenue for new infrastructure to manage its water supplies, stabilize water rates, increased groundwater levels, and increased drought year supplies. In addition, improved conjunctive use operations and in-lieu banking have also allowed AEWSD's farmers to utilize surface supplies instead of groundwater supplies at times when MWD banks water. AEWSD has benefitted from enhanced recharge capabilities resulting from the facilities that were constructed as part of the Program as well as from higher groundwater levels resulting in lesser overall groundwater pumping energy use and costs. For MWD, the Program has provided an opportunity to convert its surplus wet year SWP supplies into a firm dry year supply and to improve water quality in the Aqueduct when AEWSD returns groundwater and/or Friant Division CVP water to MWD.

San Joaquin River Restoration Program

The SJRRP is a comprehensive, long-term effort to restore flows to the San Joaquin River from Friant Dam to the confluence of Merced River in order to restore a self-sustaining Chinook salmon fishery in the river, while reducing/avoiding adverse water supply impacts to Friant Division CVP contractors. The SJRRP is the program that implements both the San Joaquin River Restoration Settlement (a settlement that resulted from legal action) and the San Joaquin River Restoration Settlement Act (the law that directs Federal entity and Federal funding actions

relative to the settlement). Reclamation initiated the SJRRP in October 2009 with the first interim flows project. Interim flows have been provided since in accordance with the SJRRP. To reduce/avoid water supply impacts to Friant Division CVP contractors, the interim flows have/would be recaptured and stored in SLR for return to the Friant Division CVP contractors. Reclamation has since determined that the amount of water to be recaptured in SLR and recirculated back to Friant long-term contractors is between approximately 20,000 and 80,000 AF for Water Year 2012 (October 2011 through September 2012).

Arvin-Edison Water Storage District

AEWSD was formed in 1942 to provide a reliable water supply for its landowners for agricultural purposes. In order to regulate a highly variable water supply, AEWSD developed and continues to develop water management programs based on the concept of delivering imported water in years of above average water supplies to 1) spreading ponds for groundwater recharge and/or 2) transfers/exchanges with other agencies and entities (such as MWD) that can in turn provide return water at times later in the same year (or in subsequent years) and typically during drought or low allocation years or periods. During below average or dry years or periods, AEWSD extracts (via wells) previously stored groundwater and/or accepts return of water from water transfers and exchanges to meet its agricultural demands when surface supplies are deficient.

AEWSD is a long-term CVP contractor; its current facilities were primarily constructed in the 1960s and are based on the conjunctive use of surface water imported from the CVP, SWP, Kern River, including other supplies (i.e. flood flows from northern rivers/creek on FKC) and groundwater resources that underlie AEWSD. AEWSD owns and operates spreading/percolation/recharge basins and groundwater extraction wells, which are used to supply previously banked groundwater to its landowners within its service area when surface water supplies are deficient. AEWSD facilities (recharge and extraction) are also made available to other water agencies for their utilization through water management programs/agreements on a second priority basis.

AEWSD has an annual contract entitlement with Reclamation for 40,000 AF of Class 1 and 311,675 AF of Class 2 Friant Division CVP supplies. The Class 2 supply comprises a large portion of their contract allocation; however, this supply is highly variable depending on availability and hydrology. AEWSD manages this supply by using an underlying groundwater reservoir to regulate water availability and to stabilize water reliability by percolating water through spreading basins in addition to water management programs (i.e. transfers/exchanges) with other water agencies outside its service area. AEWSD takes Friant CVP water from their Intake Canal located at the terminus of the FKC and serves landowners within its district through 45 miles of lined canals and 170 miles of pipeline.

AEWSD has historically made available a portion of its Friant Division CVP water supply to other CVP contractors located on the eastside of the San Joaquin Valley in exchange for alternate CVP supplies originating from the Sacramento-San Joaquin River Delta, diverted and wheeled through the Aqueduct for ultimate delivery to AEWSD. Due to a decrease in supply reliability, cost increases, and water quality concerns, several of these exchanges are no longer feasible to the extent they once were. As a result, it has been necessary for AEWSD to identify and implement additional programs to manage its CVP water supplies.

AEWSD could also have recirculation water made available to it for delivery from SLR as a result of releases made into the San Joaquin River from Millerton Lake, captured at Mendota Pool and subsequently stored through exchange/transfer agreements that were analyzed under a separate EA for recirculation of recaptured interim flows. The volume of recaptured and recirculated interim flows to be available to AEWSD in 2012 will not be known until later in the 2012 water year.

Metropolitan Water District

MWD was created in 1928 under an enabling act of the California State Legislature to provide supplemental water to cities and counties in the Southern California coastal plain. This supplemental water is delivered to MWD's twenty six member agencies through a regional network of canals, pipelines, reservoirs, treatment plants and related facilities. In the late 1990's, MWD developed an Integrated Resources Plan which predicted significant water supply deficits for its service area and also outline the efforts needed on several fronts to avoid significant water shortages, especially in dry years. This plan called for a mix of water resources derived from conservation, reclamation, groundwater conjunctive-use and water transfers to ensure adequate system flexibility to protect public safety, particularly during droughts. The plan specifically cites a need for diversification of MWD's source of supply including accessing transfers, exchanges and groundwater banking programs involving Central Valley water districts.

Groundwater Resources

Tulare Lake Hydrologic Region The Tulare Lake Hydrologic Region covers approximately 10.9 million acres (17,000 square miles) and includes all of Kings and Tulare Counties and most of Fresno and Kern Counties. The extensive use of groundwater has historically caused subsidence of the land surface primarily along the west side and south end of the San Joaquin Valley. Groundwater levels were generally at their lowest levels in the late 1960s, prior to importation of surface water. Water levels gradually increased to a maximum in about 1987-88 and falling briefly during the 1976-77 drought. Water levels began dropping again during the 1987-92 drought, with water levels showing the effects until 1994. Through a series of wet years after the drought, 1998 water levels recovered nearly to 1987-88 levels (DWR 2003).

AEWSD is located within the Kern County Subbasin of the Tulare Lake Hydrologic Region. In addition to adopting a groundwater management plan, AEWSD has successfully operated a conjunctive use program in order to balance and provide sufficient water supplies to their customers. As mentioned earlier, AEWSD operates approximately 1,500 acres of spreading ponds including the North Canal, Sycamore, and Tejon Spreading Works. Water quality within the subbasin contains primarily calcium bicarbonate waters in the shallow zones, increasing in sodium with depth. While the local groundwater in AEWSD is of good quality, it is generally higher in total dissolved solids, nitrates, boron, and other constituents than that from the FKC (Program 1996).

South Coast Hydrologic Region The South Coast Hydrologic Region covers approximately 6.78 million acres (10,600 square miles) of the southern California watershed that drains to the Pacific Ocean. The region underlies all of Orange County, most of San Diego and Los Angeles Counties, parts of Riverside, San Bernardino, and Ventura Counties, and a amount of Kern and Santa Barbara Counties. The majority of MWD is located within the South Coast Hydrologic

Region. Groundwater provides about 23 percent of water demand in normal years and about 29 percent in drought years. Conjunctive use of surface water and groundwater is a long-standing practice in the region. Groundwater quality varies with local impairments of excess nitrate, sulfate, and volatile organic compounds (DWR 2003).

Conveyance Facilities

California Aqueduct/San Luis Canal The California Aqueduct (SWP) and San Luis Canal (CVP) is a joint-use facility. The San Luis Canal is the Federally-built and operated section and extends 102.5 miles from O'Neill Forebay in a southeasterly direction to a point west of Kettleman City. At this point, the facility becomes the State's California Aqueduct; however, the Aqueduct actually begins at the Banks Pumping Plant where the canal conveys water pumped from the Sacramento-San Joaquin River Delta directly into O'Neill Forebay.

Cross Valley Canal The CVC, a locally-financed facility completed in 1975. The canal extends from the California Aqueduct near Tupman to Bakersfield. It consists of four reaches consisting of 6 pumping lifts, which has a capacity of 1,400 cubic-feet per second (cfs) from the Aqueduct to AEWS's Intake Canal (also near the FKC terminus and Kern River). The CVC "extension", an unlined canal, continues past AEWS Intake Canal, of which is rated 342 cfs and has an additional 2 pumping lifts. The CVC is a joint-use facility owned by various "Participants", of which AEWS is but one participant. The CVC, which is operated by the KCWA, can convey water from the Aqueduct to the Kern Water Bank, the City of Bakersfield groundwater recharge facility, the Berrenda Mesa Property, the Pioneer Banking Project, the Kern River channel, to AEWS's Intake Canal, or to various member units of KCWA and other districts who have access to the CVC. The CVC is also capable of conveying water, in reverse flow-gravity mode, to the Aqueduct. In 2008, as part of the CVC expansion project, an additional 500 cfs turnout was constructed from the FKC that can deliver water by gravity into either the AEWS Intake Canal or the CVC.

Friant-Kern Canal The FKC carries water over 151.8 miles in a southerly direction from Friant Dam to its terminus at the Kern River, four miles west of Bakersfield. The FKC has an initial capacity of 5,000 cfs that gradually decreases to 2,000 cfs at its terminus in the Kern River (Reclamation 2010). The water conveyed in the FKC is from the San Joaquin River and is considered to be of pristine quality because it originates from snow melt from the Sierra Nevada. The water is used for municipal and industrial, and agricultural purposes in Fresno, Tulare, and Kern Counties. The FKC is a part of the CVP, which annually delivers about seven million AF of water for agricultural, urban, and wildlife use.

3.1.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not approve the proposed exchange of AEWS's CVP water for MWD's SWP water. AEWS would retain their Friant Division CVP supplies and recaptured interim flows stored in SLR, and use them as allowed under their contract to meet in-district irrigation demands or apply the water to spreading works for groundwater recharge, if available capacities exist. As a result, AEWS would fulfill its obligation to return water under the Program by extracting/pumping previously banked SWP supplies for delivery to MWD. MWD would use this water to satisfy their customers' needs.

AEWSD would not have the ability to capture and regulate wet year type supplies that would help offset groundwater extraction and/or have supplies for recharge later in the year. MWD would not get the Friant CVP water and associated water quality benefits. There also would not be any benefits to the environment from the reduction in power generation.

There would be no additional impacts to any of the conveyance facilities and water resources listed in the affected environment from what was already analyzed under the Program. There would be no impacts to the SJRRP (unless the water is not taken), its projects, and objectives.

Proposed Action

The Proposed Action would allow AEWSD to deliver their CVP supplies to MWD in exchange for MWD's SWP water (including previously banked SWP). MWD would not experience a net gain or loss in water supply as compared to the Program arrangement, nor would it hinder the Program's ability to continue operating as has historically occurred.

Allowing AEWSD to temporarily send CVP water to MWD for return within a 12-month period would allow AEWSD to better manage supply that is already available to AEWSD but for which there isn't any instantaneous grower demands and/or available recharge capacity within the District to fill. AEWSD would have the ability to better utilize this supply as a result of this temporary exchange. This may allow AEWSD to reduce or eliminate groundwater extractions to meet deficient supply later in the year and/or direct groundwater recharge in their recharge basins later in the year (regulate supply).

Both AEWSD and MWD would not experience a net gain or loss in their respective water supplies under the Proposed Action since the exchange would be "bucket for bucket". AEWSD would still have sufficient water resources to provide to their landowners for agricultural purposes and MWD would use this water to supplement their reduced SWP supplies in order to meet its customers' demand for municipal and industrial use. The Proposed Action could improve the timing in delivery, increase return volumes (return rates could be greater than instantaneous well extraction rates and/or potential capacity limitations), and improve water quality for MWD.

The Proposed Action would not increase groundwater pumping from what has historically occurred within the Kern County Subbasin by AEWSD, but has the potential to reduce groundwater pumping. In addition to adopting a groundwater management plan, AEWSD has successfully operated a conjunctive use program by which to balance its surface and groundwater supplies. Surface water imported into the district is used to recharge the groundwater through AEWSD's many spreading works if not used immediately for agricultural irrigation purposes. The Proposed Action would allow AEWSD to exchange its CVP water supplies for MWD's SWP supplies (including previously banked water). Aside from the 10 percent loss factor left in the groundwater bank as part of the Program, there would be no net gain or loss to groundwater levels underlying AEWSD from implementing the Proposed Action. There would be no measurable changes to the groundwater basin underlying MWD since the water would be used for municipal and industrial purposes, and little, if any, water would seep into the groundwater basin. The supplemental water would be used to satisfy current customers' needs and could alleviate the region's reliance on groundwater pumping; however, groundwater

pumping as part of the region's conjunctive use practice would continue as has historically occurred and would occur with or without the Proposed Action.

The CVC, CVP and SWP facilities would not be impacted as the Proposed Action must be scheduled and approved by KCWA, Reclamation and DWR, respectively. If a canal capacity prorate is required during the period this water is moving through the FKC, the prorate priority shall be pursuant to the tiers defined in Section VII of the Operational Guidelines for Water Service, Friant Division CVP, dated March 18, 2005. Additionally, the exchange must be conducted in a manner that would not harm other CVP contractors or other CVP contractual or environmental obligations, or SWP contractors. Therefore, normal obligations by the overseeing agencies to deliver water to their contractors and other obligations would not be impacted. In continuance of commitments from the Program, existing Aqueduct Pump-in Facilitation Group guidelines would followed by both AEWS and KCWA when introducing water into the Aqueduct to insure that water quality would not be adversely impacted.

Cumulative Impacts

No adverse cumulative impacts to water resources is expected as the Proposed Action would likely have similar results as the No Action Alternative as surface water would be delivered to the same general area for irrigation and recharge.

3.2 Land Use

3.2.1 Affected Environment

Arvin-Edison Water Storage District

AEWS includes the City of Arvin and is located in the proximity of the unincorporated communities of Edison, Lamont, Mettler, and DiGiorgio. The vast majority of farmland in the AEWS's service area is classified as Irrigated Farmland by the California Department of Conservation (DOC 2010). The second main farmland classification in the service area is Non-irrigated Farmland.

Agriculture, in the form of row crops, orchards and vineyards, is the primary land use in the region. The Kern County General Plan designates most areas within the AEWS service area as "intensive agriculture". Supplemental irrigation is required for these activities as the area receives an average of only 8.5 inches of rainfall per year. Other agricultural uses, while not directly dependent on irrigation for production, are also consistent with the intensive agriculture designation. The minimum parcel size is 20 acres and permitted uses include, but are not limited to, irrigated cropland, orchards, vineyards, horse ranches, beekeeping, ranch and farm facilities, and related uses. One single-family dwelling unit is permitted per 20-acre parcel (KCPD 2007).

Metropolitan Water District

The Southern California Association of Governments area comprises the bulk of MWD's service area both in terms of area and water usage. Only 10 percent of the region is urbanized. The remainder is largely uninhabited mountain and desert area, rich in natural resources.

Principal land use trends include densification of existing residential and commercial areas, urban fill on scattered pockets of vacant land, extension of urban development into hillside and mountainous terrain and suburban expansion on the perimeter of the urbanized regions with new planned developments. Such trends are operating differently in various sub regions, depending upon their respective histories, locations and socio-economic influences. City and county regional plans reflect mainly incremental changes to existing land use in coastal areas, while major expansions of the new urban development are shown for undeveloped land in outlying valleys and desert areas.

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, AEWS D would deliver banked SWP supplies in the form of pumped groundwater back to MWD as originally arranged and analyzed under the Program. Therefore, no new land use impacts associated with the No Action Alternative would occur.

Proposed Action

As to facilitating the return of previously banked water under the Program, the Proposed Action would utilize existing facilities to convey waters involved and would not require the need to construct new facilities or modifications to existing facilities that would result in ground disturbance. The exchange would be “bucket for bucket”; therefore, AEWS D and MWD would not experience a net gain or loss in water supply available to them. MWD would exchange an equivalent amount of banked SWP water under the Program for AEWS D’s CVP supplies. The SWP water exchanged would change in ownership over to AEWS D and remain in AEWS D’s groundwater bank. At a time of its choosing, AEWS D would pump the banked water and deliver it to their landowners for existing agricultural purposes.

Allowing AEWS D to temporarily send CVP water to MWD for return in the same year would allow AEWS D to better manage supply that is already available to AEWS D but for which there isn’t any instantaneous grower demands and/or available recharge capacity within the District. AEWS D would have the ability to better utilize this supply as a result of this temporary exchange which may allow AEWS D to reduce or eliminate groundwater extractions to meet deficient supply later in the year and/or groundwater recharge in their recharge basins later in the year (regulate supply).

AEWS D would not experience a decrease in water supply that would impact existing irrigated farmlands within its service area, nor would the banked or return water be used to cultivate native or fallowed land that has been in those conditions for three or more consecutive years. MWD intends to use the exchanged CVP water to supplement its water supplies for existing municipal and industrial purposes within its service area, and would not contribute to any potential expansion within the area. Therefore, the Proposed Action would not have any impacts on existing land use.

Cumulative Impacts

In recent years, land use changes within the San Joaquin Valley have involved the urbanization of agricultural lands. These types of changes are typically driven by economic pressures and are

as likely to occur with or without the Proposed Action; therefore, no cumulative effects to land use are expected as a result of the Proposed Action.

3.3 Biological Resources

3.3.1 Affected Environment

A Special-Status species list for the AEWS D service area was obtained from the USFWS Sacramento Field Office, on January 18, 2012 (File Number 120118023519). On January 18, 2012 a species list for the MWD was requested from the Ventura and Carlsbad Service Offices. Reclamation further queried the California Natural Diversity Database (CNDDB) for records of protected species within 10 miles of the project location (CNDDB 2012). The USFWS and CNDDB data, in addition to other information within Reclamation's files, was compiled into Tables 3-1 and 3-2 for AEWS D and MWD, respectively.

Table 3-1 Federal status species that could potentially occur within AEWS D

<u>Species</u>	<u>Status¹</u>	<u>Effects²</u>
Amphibians		
California red-legged frog (<i>Rana aurora draytonii</i>)	T	NE
Birds		
California Condor (<i>Gymnogyps californianus</i>)	E	NE
southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	E	NE
Fish		
delta smelt (<i>Hypomesus transpacificus</i>)	T	NE
Invertebrates		
valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	T	NE
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	T	NE
Mammals		
Buena Vista Lake shrew (<i>Sorex ornatus relictus</i>)	E, X	NE
giant kangaroo rat (<i>Dipodomys ingens</i>)	E	NE
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	E	NE
Tipton kangaroo rat (<i>Dipodomys nitratoide nitratoide</i>)	E	NE
Plants		
Bakersfield cactus (<i>Opuntia treleasei</i>)	E	NE
California jewelflower (<i>Caulanthus californicus</i>)	E	NE
San Joaquin adobe sunburst (<i>Pseudobahia peirsonii</i>)	T	NE
San Joaquin woolly-threads (<i>Monolopia congdonii</i>)	E	NE
Source list: USFWS Sacramento Office 2012 1 Status= Listing of Federally special status species E: Listed as Endangered T: Listed as Threatened X: Critical Habitat designated for this species 2 Effects = Endangered Species Act Effect determination NE: No Effect		

Table 3-2 Federal status species that could potentially occur within MWD

<u>Species</u>	<u>Status¹</u>	<u>Effects²</u>
Reptiles		
blunt-nosed leopard lizard (<i>Gambelia sila</i>)	E	NE
giant garter snake (<i>Thamnophis gigas</i>)	T	NE
Amphibians		
Arroyo toad (<i>Bufo californicus</i>)	E, X	NE
California red-legged frog (<i>Rana aurora draytonii</i>)	T, X	NE
Birds		
California Condor (<i>Gymnogyps californianus</i>)	E	NE
California Least tern (<i>Sterna antillarum browni</i>)	E, X	NE
Coastal California gnatcatcher (<i>Polioptila californica californica</i>)	T, X	NE
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	E	NE
Light-Footed Clapper rail (<i>Rallus longirostris levipes</i>) Population: U.S.A. only	E	NE
Marbled murrelet (<i>Brachyramphus marmoratus</i>) Population: CA, OR, WA	T	NE
southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	E, X	NE
Western Snowy plover (<i>Charadrius alexandrinus nivosus</i>) Population: Pacific coastal pop.	T, X	NE
Fish		
Santa Ana sucker (<i>Catostomus santaanae</i>) Population: 3 CA river basins	T, X	NE
steelhead (<i>Oncorhynchus mykiss</i>) Population: southern CA coast	E, X	NE
Tidewater goby (<i>Eucyclogobius newberryi</i>)	E, X	NE
Invertebrates		
Delhi Sands Flower-Loving fly (<i>Rhaphiomidas terminatus abdominalis</i>)	E	NE
El Segundo Blue butterfly (<i>Euphilotes battoides allyni</i>)	E	NE
Palos Verdes Blue butterfly (<i>Glaucopsyche lygdamus palosverdesensis</i>)	E	NE
Quino Checkerspot butterfly (<i>Euphydryas editha quino</i>)	E, X	NE
Riverside fairy shrimp (<i>Streptocephalus woottoni</i>)	E, X	NE
San Diego fairy shrimp (<i>Branchinecta sandiegonensis</i>)	E, X	NE
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	T	NE
Mammals		
Pacific Pocket mouse (<i>Perognathus longimembris pacificus</i>)	E	NE
San Bernardino Merriam's kangaroo rat (<i>Dipodomys merriami parvus</i>)	E	NE
Stephens' kangaroo rat (<i>Dipodomys stephensi</i>)	E	NE
Plants		NE
Big-Leaved crownbeard (<i>Verbesina dissita</i>)	T	NE
Brand's phacelia (<i>Phacelia stellaris</i>)	C	NE
Braunton's milk-vetch (<i>Astragalus brauntonii</i>)	E, X	NE
California Orcutt grass (<i>Orcuttia californica</i>)	E	NE
Coastal Dunes milk-vetch (<i>Astragalus tener var. titi</i>)	E	NE

<u>Species</u>	<u>Status</u> ¹	<u>Effects</u> ²
Reptiles		
blunt-nosed leopard lizard (<i>Gambelia sila</i>)	E	NE
giant garter snake (<i>Thamnophis gigas</i>)	T	NE
Conejo dudleya (<i>Dudleya abramsii</i> ssp. <i>parva</i>)	T	NE
Del Mar Manzanita (<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>)	E	NE
Encinitas baccharis (<i>Baccharis vanessae</i>)	T	NE
Gambel's watercress (<i>Rorippa gambellii</i>)	E	NE
Laguna Beach liveforever (<i>Dudleya stolonifera</i>)	T	NE
Lyon's pentachaeta (<i>Pentachaeta lyonii</i>)	E, X	NE
Marcescent dudleya (<i>Dudleya cymosa</i> ssp. <i>marcescens</i>)	T	NE
Marsh Sandwort (<i>Arenaria paludicola</i>)	E	NE
Mexican flannelbush (<i>Fremontodendron mexicanum</i>)	E	NE
Munz's onion (<i>Allium munzii</i>)	E, X	NE
Nevin's barberry (<i>Berberis nevinii</i>)	E	NE
Orcutt's hazardia (<i>Hazardia orcuttii</i>)	C	NE
Orcutt's spineflower (<i>Chorizanthe orcuttiana</i>)	E	NE
Otay mesa-mint (<i>Pogogyne nudiuscula</i>)	E	NE
Otay tarplant (<i>Deinandra conjugens</i>)	T, X	NE
Salt Marsh bird's-beak (<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i>)	E	NE
San Diego ambrosia (<i>Ambrosia pumila</i>)	E, X	NE
San Diego button-celery (<i>Eryngium aristulatum</i> var. <i>parishii</i>)	E	NE
San Diego mesa-mint (<i>Pogogyne abramsii</i>)	E	NE
San Diego thornmint (<i>Acanthomintha ilicifolia</i>)	T, X	NE
San Fernando Valley Spineflower (<i>Chorizanthe parryi</i> var. <i>fernandina</i>)	C	NE
San Jacinto Valley crownscale (<i>Atriplex coronata</i> var. <i>notatior</i>)	E	NE
Santa Ana River woolly-star (<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>)	E	NE
Santa Monica Mountains dudleyea (<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i>)	T	NE
Slender-Horned spineflower (<i>Dodecahema leptoceras</i>)	E	NE
Spreading navarretia (<i>Navarretia fossalis</i>)	T, X	NE
Thread-Leaved brodiaea (<i>Brodiaea filifolia</i>)	T, X	NE
Vail Lake ceanothus (<i>Ceanothus ophiocylus</i>)	T	NE
Ventura Marsh Milk-vetch (<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>)	E	NE
Verity's dudleya (<i>Dudleya verityi</i>)	T	NE
Willow monardella (<i>Monardella linoides</i> ssp. <i>viminea</i>)	E, X	NE
Source: USFWS Ventura and Carlsbad Service Offices 2012		
1 Status= Listing of Federally special status species C: Listed as Candidate E: Listed as Endangered T: Listed as Threatened X: Critical Habitat designated for this species 2 Effects = Endangered Species Act Effect determination NE: No Effect		

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, there would be no effects to biological resources since conditions would remain the same as existing conditions.

Proposed Action

Under the Proposed Action the affects are similar to the No Action Alternative. Most of the habitat types required by species protected by the Endangered Species Act (ESA) no longer occur in the Proposed Action area (Reclamation 1999). The Proposed Action would not involve the conversion of any land fallowed and untilled for three or more consecutive years. The Proposed Action also would not change the land use patterns of cultivated or fallowed fields potentially having some value to listed species or birds protected by the Migratory Bird Treaty Act (MBTA). Since no natural stream courses would be affected, there would be no effects on listed fish species. No critical habitat occurs within the area affected by the Proposed Action therefore, none of the primary constituent elements of any critical habitat would be affected. Considering the above limitations, Reclamation has determined that there would be No Effect to listed species or designated critical habitat under the ESA (16 U.S.C. §1531 et. seq.) for the proposed federal action of approving these exchanges.

Cumulative Impacts

Existing conditions, such as loss of habitat due to urbanization and expanding agricultural lands that cumulatively impact listed species and their habitats, are expected to occur with or without the Proposed Action. The exchange of AEWS's CVP water for MWD's SWP water is not expected to contribute cumulatively to habitat loss as this water would be used consistent with current uses. Therefore, there would be no cumulative adverse impacts to biological resources as a result of the Proposed Action.

3.4 Cultural Resources

Cultural resources is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation that outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places (National Register). Those resources that are on or eligible for inclusion in the National Register are referred to as historic properties.

The Section 106 process is outlined in the Federal regulations at 36 Code of Federal Regulations (CFR) Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking would have on historic properties. In summary, Reclamation must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, Reclamation must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking will have on historic properties, and consult with the State Historic Preservation

Office (SHPO), to seek concurrence on Reclamation's findings. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties. Reclamation uses the Section 106 process to identify and consider impacts to cultural resources that may be affected by actions outlined in this EA/IS.

3.4.1 Affected Environment

The San Joaquin Valley is rich in historical and prehistoric cultural resources. Cultural resources in this area are generally prehistoric in nature and include remnants of native human populations that existed before European settlement. Prior to the 18th Century, many Native American tribes inhabited the Central Valley. It is possible that many cultural resources lie undiscovered across the valley. The San Joaquin Valley supported extensive populations of Native Americans, principally the Northern Valley Yokuts, in the prehistoric period. Cultural studies in the San Joaquin Valley have been limited. The conversion of land and intensive farming practices over the last century has probably disturbed many Native American cultural sites.

Resources within the scope of this project include historic features of the built environment primarily those of the CVP and SWP. Components of the CVP have been determined eligible for inclusion in the National Register and have been prepared for inclusion in the National Register through a multiple property nomination. The CVP multiple property nomination is currently being reviewed for submission to the Keeper of the National Register for inclusion in the National Register.

Friant Dam is located on the San Joaquin River, northeast of Fresno, California. Completed in 1942, the dam is a concrete gravity structure, 319 feet high, with a crest length of 3,488 feet. Construction of the canal began in 1945 and was completed in 1951. Both Friant Dam and the FKC are considered contributing elements of the CVP multiple property listing and are considered eligible for inclusion in the National Register. The San Luis Unit is a joint Federal and State project. The Federal components of the San Luis Unit include O'Neil Pumping Plant and Intake Canal, Coalinga Canal, Pleasant Valley Pumping Plant, and the San Luis Drain. The features of the San Luis Unit are not considered contributing features of the CVP's National Register status. Additionally, the features of the San Luis Unit were all completed in the late 1960's and are not yet eligible for inclusion in the National Register.

3.4.2 Environmental Consequences

No Action

Under the No Action Alternative, there would be no Federal undertaking as described in the NHPA at Section 301(7). As a result, Reclamation would not be obligated to implement Section 106 of that NHPA and its implementing regulations at 36 CFR Part 800. Because there is no undertaking, impacts to cultural resources would not be evaluated through the Section 106 process. All operations would remain the same, resulting in no impacts to cultural resources.

Proposed Action

The Proposed Action to exchange water as described in the Section 2.2 of this EA/IS constitutes an undertaking as pursuant to Section 301(7) of the NHPA, initiating Section 106 of the NHPA

and its implementing regulations at 36 CFR Part 800. All exchanges would occur through existing facilities and water would be provided within existing service area boundaries to areas that currently use water. The Proposed Action would not result in modification of any existing facilities, construction of new facilities, change in land use, or growth. Because the Proposed Action would result in no physical alterations of existing facilities and no ground disturbance as stipulated in Section 2.2 of this EA/IS, Reclamation concludes that the Proposed Action has no potential to cause effect to historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1), and would result in no impacts to cultural resources (Appendix A).

Cumulative Impacts

No cumulative impacts would result from the proposed action as there is no land disturbance or direct impacts.

3.5 Indian Sacred Sites

Executive Order 13007 requires Federal land managing agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. It also requires agencies to develop procedures for reasonable notification of proposed actions or land management policies that may restrict access to or ceremonial use of, or adversely affect, sacred sites.

3.5.1 Affected Environment

Native American consultation activities consisted of a Sacred Lands File Search performed by the Native American Heritage Commission (NAHC); no resources were identified during this activity. Project notification letters and requests for consultation were sent to the designated Native American area contacts as identified by the NAHC. No responses were received from the Native American representatives regarding the Proposed Action.

3.5.2 Environmental Consequences

No Action

There would be no impacts to sacred sites as conditions would remain the same as existing conditions.

Proposed Action

At this time, no Indian sacred sites have been identified. In addition, the Proposed Action would not impede access to or ceremonial use of Indian sacred sites. If sites are identified in the future, Reclamation would comply with Executive Order 13007.

Cumulative Impacts

Should any sacred sites be identified in the future, Reclamation would comply with Executive Order 13007. This would ensure that no cumulative impacts would occur that could impede access to or ceremonial use of Indian sacred sites due to the Proposed Action.

3.6 Indian Trust Assets

ITA are legal interests in assets that are held in trust by the U.S. Government for Federally recognized Indian tribes or individuals. The trust relationship usually stems from a treaty, executive order, or act of Congress. The Secretary of the Interior is the trustee for the United States on behalf of Federally recognized Indian tribes. “Assets” are anything owned that holds monetary value. “Legal interests” means there is a property interest for which there is a legal remedy, such a compensation or injunction, if there is improper interference. ITA cannot be sold, leased or otherwise alienated without the United States’ approval. Assets can be real property, physical assets, or intangible property rights, such as a lease, or right to use something; which may include lands, minerals and natural resources in addition to hunting, fishing, and water rights. Indian reservations, rancherias, and public domain allotments are examples of lands that are often considered trust assets. In some cases, ITA may be located off trust land.

Reclamation shares the Indian trust responsibility with all other agencies of the Executive Branch to protect and maintain ITA reserved by or granted to Indian tribes, or Indian individuals by treaty, statute, or Executive Order.

3.6.1 Affected Environment

The nearest ITA is a Public Domain Allotment approximately 38 miles east of the Proposed Action location.

3.6.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not approve the exchange and conditions would remain the same as existing conditions; therefore, there would be no impacts to ITA.

Proposed Action

Approval of the exchange between AEWS and MWD would not involve any construction on lands or impact water, hunting, and fishing rights associated with the nearest ITA listed in the affected environment. Therefore, the Proposed Action does not have a potential to affect ITA.

Cumulative Impacts

There are no ITA in the action area; therefore, the Proposed Action when added to previous and reasonably foreseeable banking activities do not contribute to cumulative impacts to ITA.

3.7 Environmental Justice

3.7.1 Affected Environment

The February 11, 1994, Executive Order 12898 requires Federal agencies to ensure that their actions do not disproportionately impact minority and disadvantaged populations. The market for seasonal workers on local farms draws thousands of migrant workers, commonly of Hispanic origin from Mexico and Central America, into the San Joaquin Valley. Agriculture and related businesses are the main industry within AEWS, which provides employment opportunities for these minority and/or disadvantaged populations.

MWD would still receive water supplies to supplement their current SWP supplies under the No Action Alternative or the Proposed Action. As a result, disproportional impacts to minority and disadvantaged populations would not occur within MWD, and is not discussed further in Section 3.7.2 below.

3.7.2 Environmental Consequences

No Action

The No Action Alternative would not result in harm to minority or disadvantaged populations within the vicinity of AEWS D since the district would not experience a net gain or loss in water supply that would otherwise be used to irrigate farmlands which these populations depend upon for employment opportunities.

Proposed Action

Similar to the No Action Alternative, the Proposed Action would not cause dislocation, changes in employment, or increase flood, drought, or disease within the affected environment. The Proposed Action would not disproportionately impact economically disadvantaged or minority populations. The Proposed Action is intended to allow the expeditious delivery of surface water supplies available to AEWS D and delivered to MWD in exchange for water supplies available to MWD (SWP or previously banked groundwater) over a 12-month period. Water so delivered would primarily serve to reduce energy use with attendant cost savings and would also allow AEWS D to increase their groundwater banking account to meet current and future summertime peaking demands, which would support agricultural jobs in the region.

Cumulative Impacts

The Proposed Action, when added to other existing and proposed actions, would have a slight beneficial contribution to cumulative impacts for minority or disadvantaged populations as it would help support and maintain jobs that low-income and disadvantaged populations rely upon due to increased irrigation water supply reliability.

3.8 Socioeconomic Resources

3.8.1 Affected Environment

The agricultural industry significantly contributes to the overall economic stability of the San Joaquin Valley. The CVP allocations each year allow farmers to plan for the types of crops to grow and to secure loans to purchase supplies. Depending upon the variable hydrological and economical conditions, water transfers and exchanges could be prompted. The economic variances may include fluctuating agricultural prices, insect infestation, changing hydrologic conditions, increased fuel and power costs.

MWD would still receive water supplies to supplement their current SWP supplies under the No Action Alternative or the Proposed Action. As a result, MWD would not incur any impacts to its socioeconomic resources and is not discussed further in Section 3.8.2 below.

3.8.2 Environmental Consequences

No Action

Under the No Action Alternative, the exchange would not affect agricultural production within AEWS; therefore, the socioeconomic conditions within AEWS would remain the same as existing conditions.

Proposed Action

The Proposed Action would result in less energy use with virtually no changes in flow path from what was analyzed under the Program. This would save AEWS the energy and costs associated with otherwise pumping and returning groundwater. If AEWS is also directly recharging water to their groundwater at this time on their own behalf, it would also save AEWS the expenses associated with operating their recharge basins. Agricultural practices within AEWS would be within historical conditions and would not be adversely impacted by the implementing the Proposed Action.

Cumulative Impacts

Over the long term, the Proposed Action would benefit AEWS by increasing groundwater levels and dry year supplies. Improved conjunctive use operations and in-lieu banking could also allow AEWS's farmers to utilize surface supplies instead of groundwater supplies at times when MWD banks or returns water. This would subsequently help to maintain the economic viability of irrigated agriculture within the district. When added to other similar existing and proposed actions, the Proposed Action could contribute to beneficial cumulative impacts to socioeconomic resources within AEWS.

3.9 Air Quality

Section 176 (C) of the Clean Air Act [CAA] (42 U.S. Code [U.S.C.] 7506 (C)) requires any entity of the federal government that engages in, supports, or in any way provides financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable State Implementation Plan (SIP) required under Section 110 (a) of the Federal CAA (42 U.S.C. 7401 (a)) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with SIP's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the conformity requirements would, in fact conform to the applicable SIP before the action is taken.

On November 30, 1993, the Environmental Protection Agency (EPA) promulgated final general conformity regulations at 40 CFR 93 Subpart B for all federal activities except those covered under transportation conformity. The general conformity regulations apply to a proposed federal action in a non-attainment or maintenance area if the total of direct and indirect emissions of the relevant criteria pollutants and precursor pollutant caused by the Proposed Action equal or exceed certain *de minimis* amounts thus requiring the federal agency to make a determination of general conformity.

3.9.1 Affected Environment

The Proposed Action area lies within the San Joaquin Valley Air Basin (SJVAB) under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). NAAQS and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), inhalable particulate matter between 2.5 and 10 microns in diameter (PM₁₀) and particulate matter less than 2.5 microns in diameter (PM_{2.5}), and lead. The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

The pollutants of greatest concern in the San Joaquin Valley are CO, O₃, O₃ precursors such as reactive organic gases and nitrogen oxides (NO_x), as well as PM₁₀, and PM_{2.5}. The SJVAB has reached Federal and State attainment status for CO, NO₂, and SO₂. Federal attainment status has been reached for PM₁₀ but is in non-attainment for O₃ and PM_{2.5} (Table 3-2). State attainment status has also been reached for lead but is in non-attainment for O₃, PM₁₀, and PM_{2.5}. There are no established standards for NO_x; however, NO_x does contribute to NO₂ standards and is an O₃ precursor (SJVAPCD 2011).

Table 3-2 San Joaquin Valley Attainment Status

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
O ₃	8 Hour	0.070 ppm (137 µg/m ³)	Nonattainment	0.075 ppm	Nonattainment
	1 Hour	0.09 ppm (180 µg/m ³)	Nonattainment	--	--
CO	8 Hour	9.0 ppm (10 mg/m ³)	Attainment	9.0 ppm (10 mg/m ³)	Attainment
	1 Hour	20.0 ppm (23 mg/m ³)	Unclassified	35.0 ppm (40 mg/m ³)	Unclassified
NO ₂	Annual arithmetic mean	0.030 ppm (56 µg/m ³)	Attainment	0.053 ppm (100 µg/m ³)	Attainment
	1 Hour	0.18 ppm (338 µg/m ³)	Attainment	--	--
SO ₂	Annual average	--	--	0.03 ppm (80 µg/m ³)	Attainment
	24 Hour	0.04 ppm (105 µg/m ³)	Attainment	0.14 ppm (365 µg/m ³)	Attainment
	1 Hour	0.25 ppm (655 µg/m ³)	Attainment	--	--
PM ₁₀	Annual arithmetic mean	20 µg/m ³	Nonattainment	--	--
	24 Hour	50 µg/m ³	Nonattainment	150 µg/m ³	Attainment
PM _{2.5}	Annual Arithmetic mean	12 µg/m ³	Nonattainment	15 µg/m ³	Nonattainment
	24 Hour	--	--	35 µg/m ³	Attainment
Lead	30 day average	1.5 µg/m ³	Attainment	--	--
	Rolling-3 month average	--	--	0.15 µg/m ³	Unclassified

Source: CARB 2011; SJVAPCD 2011; 40 CFR 93.153

ppm = parts per million

mg/m³ = milligram per cubic meter

µg/m³ = microgram per cubic meter

-- = No standard established

3.9.2 Environmental Consequences

No Action

There would be no impacts to air quality as conditions would remain the same as existing conditions under this alternative.

Proposed Action

Under the Proposed Action, AEWS would deliver their CVP supplies to fulfill its return obligation to MWD under the Program, instead of pumping and returning banked SWP water back to MWD, and regulate AEWS CVP supplies within a one year period. Delivery of water would require no modification of existing facilities or construction of new facilities. In addition, water would be moved either via gravity or electric motors/pumps which would not produce emissions that impact air quality. Therefore, a conformity analysis is not required and there would be no impact to air quality as a result of the Proposed Action.

Cumulative Impacts

There would be no cumulative impacts to air quality as there would be no emissions that impact air quality or construction activities that would produce emissions that could cumulatively impact air quality.

3.10 Global Climate

Climate change refers to significant change in measures of climate (e.g., temperature, precipitation, or wind) lasting for decades or longer. Many environmental changes can contribute to climate change [changes in sun's intensity, changes in ocean circulation, deforestation, urbanization, burning fossil fuels, etc.] (EPA 2011a)

Gases that trap heat in the atmosphere are often called greenhouse gases (GHG). Some GHG, such as carbon dioxide (CO₂), occur naturally and are emitted to the atmosphere through natural processes and human activities. Other GHG (e.g., fluorinated gases) are created and emitted solely through human activities. The principal GHG that enter the atmosphere because of human activities are: CO₂, methane, nitrous oxide, and fluorinated gases (EPA 2011a).

During the past century humans have substantially added to the amount of GHG in the atmosphere by burning fossil fuels such as coal, natural gas, oil and gasoline to power our cars, factories, utilities and appliances. The added gases, primarily CO₂ and methane, are enhancing the natural greenhouse effect, and likely contributing to an increase in global average temperature and related climate changes. At present, there are uncertainties associated with the science of climate change (EPA 2011b).

3.10.1 Affected Environment

More than 20 million Californians rely on the SWP and CVP. Increases in air temperature may lead to changes in precipitation patterns, runoff timing and volume, sea level rise, and changes in the amount of irrigation water needed due to modified evapotranspiration rates. These changes may lead to impacts to California's water resources and project operations.

While there is general consensus in their trend, the magnitudes and onset-timing of impacts are uncertain and are scenario-dependent (Anderson et al. 2008).

California Assembly Bill 32, the Global Warming Solutions Act of 2006, mandates the reduction of GHG emissions in California to 1990 levels by the year 2020. Currently there are no established significance thresholds for GHG in the SJVAB or in California.

3.10.2 Environmental Consequences

No Action

There would be no impacts to global climate change as conditions would remain the same as existing conditions under this alternative.

Proposed Action

Electric pumps produce CO₂ that could potentially contribute to GHG. However, water under the Proposed Action is water that would be delivered from the FKC with or without the Proposed Action and is therefore part of the existing conditions. There would be no additional impacts to GHG as a result of the Proposed Action.

Cumulative Impacts

Impacts from GHG are considered to be cumulative impacts; however, delivery of water with or without the Proposed Action is part of the existing baseline conditions of the Central Valley and is not expected to produce additional GHG that could contribute to global climate change.

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Section 4 CEQA Environmental Factors Potentially Affected

This section of the EA/IS includes the CEQA analysis portion of potentially affected issues that may result from implementation of the Proposed Action. Reference to the “Project” in this section is synonymous with the term “Proposed Action” used in other sections.

4.1 Discussion of Potentially Affected Environmental Factors

The Project is the exchange of a portion of AEWS’s CVP water supply for a like-amount of MWD’s SWP water supply, either by exchanging its CVP water supply for a like amount of MWD’s SWP supply already stored with AEWS’s groundwater bank or by capturing and delivering to MWD AEWS’s contract supplies not otherwise storable during wet periods for later return to AEWS on a schedulable basis.

The following is a discussion of each of the environmental factors potentially affected.

4.1.1 Aesthetics

The Project area is developed to production agriculture, which dominates the aesthetics of the surrounding area. No new lands would be planted in AEWS as a result of the Project. There would be no impact to this resource category as a result of this Project.

4.1.2 Agricultural Resources

As described in Section 4.1.1, no farmland would be converted to non-agricultural use as a result of the Project. Additionally, existing zoning would not be changed, and Williamson Act contracts would not be affected. As such, there would be no impact to agricultural resources as a result of this Project.

4.1.3 Air Quality

Impacts have been discussed in Section 3.9.

4.1.4 Biological Resources

Analysis of federally listed species and birds protected under the MBTA can be found in Section 3.3 above. A list of State-listed and special status species of concern relevant to CEQA was generated by Provost and Pritchard Consulting Group on August 3, 2011 using the California Department of Fish and Game Natural Diversity Database (CNDDB) RareFind2 data (2011, February) for the following USGS 7½ minute quadrangles that overlap AEWS: Bear Mountain, Arvin, Weed Patch, Mettler, Tejon Hills, Coal Oil Canyon, Bena, Lamont, and Edison. There are twelve plant species with federal, state, or California Native Plant Society (CNPS) listed status, and sixteen species of wildlife that are federally or state-listed or have other special status that are reported from historical information as shown in Table 4-1.

Table 4-1 Federal and State-Listed Status

Scientific Name	Common Name	Special Status	CNPS
<i>Agelaius tricolor</i>	tricolored blackbird	SSC	
<i>Antrozous pallidus</i>	pallid bat	SSC	
<i>Asio otus</i>	long-eared owl	SSC	
<i>Astragalus hornii</i> var. <i>hornii</i>	Horn's milk-vetch		1B.1
<i>Athene cunicularia</i>	burrowing owl	SSC	
<i>Atriplex tularensis</i>	Bakersfield smallscale	SE	1A
<i>Buteo swainsoni</i>	Swainson's hawk	ST	
<i>Caulanthus californicus</i>	California jewel-flower	FE, SE	1B.1
<i>Caulanthus lemmonii</i>	Lemmon's jewel-flower		1B.2
<i>Clarkia tembloriensis</i> ssp. <i>calientensis</i>	Vasek's clarkia		1B.1
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	FT	
<i>Dipodomys nitratoideus nitratoideus</i>	Tipton kangaroo rat	FE, SE	
<i>Emys marmorata</i>	western pond turtle	SSC	
<i>Ensatina eschscholtzii croceator</i>	yellow-blotched salamander	SSC	
<i>Eschscholzia lemmonii</i> ssp. <i>kernensis</i>	Tejon poppy		1B.1
<i>Eumops perotis californicus</i>	western mastiff bat	SSC	
<i>Gambelia sila</i>	blunt-nosed leopard lizard	FE, SE	
<i>Layia heterotricha</i>	pale-yellow layia		1B.1
<i>Layia leucopappa</i>	Comanche Point layia		1B.1
<i>Lithobates pipiens</i>	northern leopard frog	SSC	
<i>Mimulus pictus</i>	calico monkeyflower		1B.2
<i>Monolopia congdonii</i>	San Joaquin woollythreads	FE	1B.2
<i>Navarretia setiloba</i>	Piute Mountains navarretia		1B.1
<i>Onychomys torridus tularensis</i>	Tulare grasshopper mouse	SSC	
<i>Opuntia basilaris</i> var. <i>treleasei</i>	Bakersfield cactus	FE, SE	1B.1
<i>Sorex ornatus relictus</i>	Buena Vista Lake shrew	FE, SSC	
<i>Stabilized Interior Dunes</i>	Stabilized Interior Dunes		
<i>Taxidea taxus</i>	American badger	SSC	
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	FE, ST	
Source: CNDDDB (8/3/2011)			
FE: Federally listed as Endangered FT: Federally listed as Threatened SE: State listed as Endangered ST: State listed as Threatened CSC: California Special Concern species by California Department of Fish and Game List 1B: Plants considered by the CNPS to be rare, threatened, or endangered in California and elsewhere List 2: Plants considered by the CNPS to be rare, threatened, or endangered in California but more common elsewhere			

As no construction or conversion of farmland would occur as a result of the Project, there would be no impacts to listed species that may occur in the Project area.

4.1.5 Cultural Resources

The Project does not involve construction activities that would alter a historical, archaeological or paleontological resource, or disturb any human remains. There would be no impact to Cultural Resources as a result of this Project.

4.1.6 Geology and Soils

Several faults are known to exist in Kern County near the Project (shown in the Mettler, Arvin and Edison Quadrangles) according to the Alquist-Priolo Earthquake Fault Zoning Map (DOC 2010). As this Project does not involve the construction of new facilities, the risk to people or structures by earthquake, ground shaking, liquefaction or landslides is negligible. As discussed in Section 4.1.1, no land conversion that could result in soil erosion or loss of topsoil would occur. There would be no impact to this resource category as a result of this Project.

4.1.7 Greenhouse Gas Emissions

Impacts have been discussed in Section 3.10.

4.1.8 Hazards and Hazardous Materials

The Project does not involve the generation of any hazardous emissions or involve the transport, use, storage, or disposal of any hazardous materials, and would not 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.

The Project does not involve land that is listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control (California Department of Toxic Substances Control 2011). There would be no impact to this resource category as a result of this Project.

4.1.9 Hydrology and Water Quality

The water made available to AEWS and MWD as a result of the Project would be delivered through existing facilities and not alter the existing drainage pattern in the area, create runoff, or otherwise degrade water quality. Delivery of this water in-lieu of groundwater pumping or delivery to groundwater recharge basins would improve local groundwater conditions. There would be no impact to this resource category as a result of this Project.

4.1.10 Land Use and Planning

Impacts have been discussed in Section 3.2.

4.1.11 Mineral Resources

The Project does not involve construction or land alteration that would have the potential to impact the availability of any mineral resources or mineral resource recovery sites. There would be no impact to mineral resources as a result of this Project.

4.1.12 Noise

The facilities used to make the water deliveries as a result of this Project are already in place and in use – no additional noise or vibration would be generated as a result of this Project. There would be no impact to this resource category as a result of this Project.

4.1.13 Population and Housing

The Project does not include any features that would require the destruction or relocation of existing housing or the construction of replacement housing, and would not increase or decrease the number of available dwelling units in the area. The Project would not displace any people.

The Project would have no effect on population growth. There would be no impact to this resource category as a result of this Project.

4.1.14 Public Services

The Project does not include any features or facilities that would require additional or unusual fire protection resources, enhanced levels of police protection, nor does it have the potential to increase or decrease the area's population, and would therefore not result in a greater or lesser demand for schools or parks. There would be no impact to this resource category as a result of this Project.

4.1.15 Recreation

The Project does not have the potential to increase or decrease the area's population, and would therefore not result in increased or decreased use of parks or other recreational facilities. Additionally, the Project does not include recreational facilities and would not require the construction or expansion of any recreational facilities. There would be no impact to this resource category as a result of this Project.

4.1.16 Transportation/Traffic

The Project does not involve construction or land alteration that would have the potential to impact transportation, create additional traffic, or affect emergency access. There would be no impact to this resource category as a result of this Project.

4.1.17 Utilities and Service Systems

The Project would not result in a change to facilities or operations at existing wastewater basins, nor would it require additional water supplies or generate wastewater. The amount of runoff at the Project area would not change as a result of this Project nor would implementation of the Project generate any solid waste. There would be no impact to this resource category as a result of this Project.

4.2 Mandatory Findings of Significance

The analysis conducted in this EA/IS results in a determination that the project would have no significant effect on the local environment. The project would involve no potential for significant impacts through the degradation of the quality of the environments, the reduction in the habitat or population of fish or wildlife, including endangered plants or animals, the elimination of a plant or animal community or example of a major period of California history or prehistory. The project would not result in substantial adverse effects on human beings, either directly or indirectly.

Refer to Appendix B for the signature page and proposed adoption of a Negative Declaration.

Section 5 Consultation and Coordination

5.1 Public Review Period

Reclamation intends to provide the public with an opportunity to comment on the Draft Finding of No Significant Impact and Draft EA/IS during a 30 day public comment period beginning February 15, 2012 and ending March 15, 2012.

AEWSD intends to provide the public with an opportunity to comment on the draft EA/IS and proposed Negative Declaration as to the extent required by CEQA.

5.2 Fish and Wildlife Coordination Act (16 USC § 661 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The amendments enacted in 1946 require consultation with the Service and State fish and wildlife agencies “whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified for any purpose whatever, including navigation and drainage, by any department or agency of the United States, or by any public or private agency under Federal permit or license”. Consultation is to be undertaken for the purpose of “preventing the loss of and damage to wildlife resources”.

The Proposed Action does not involve any new impoundment or diversion of waters, channel deepening, or other control or modification of a stream or body of water as described in the statute as the Proposed Action. Consequently, Reclamation has determined that the FWCA does not apply.

5.3 Endangered Species Act (16 USC § 1531 et seq.)

Section 7 of the ESA requires Federal agencies, in consultation with the Secretary of the Interior and/or Commerce, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species.

The Proposed Action would not change land use patterns, no ground disturbing activities would take place, and water from this assignment comes from an existing allocation which would not require additional diversions. Based upon the above limitations, Reclamation has determined that there would be No Effect to listed species or designated critical habitat under the ESA (16 U.S.C. §1531 et. seq.) for the proposed federal action of approving this Assignment.

5.4 National Historic Preservation Act (16 USC § 470 et seq.)

The NHPA of 1966, as amended, is the primary legislation that outlines the Federal government's responsibility to cultural resources. Cultural resources include both archaeological and built environment resources. Section 106 of the NHPA requires that Federal agencies take into consideration the effects of their undertakings on historic properties. Historic properties are cultural resources that are included in, or eligible for inclusion in, the National Register. The 36 CFR Part 800 regulations implement Section 106 of the NHPA and outline the procedures necessary for compliance with the NHPA. Compliance with the Section 106 process follows a series of steps that are designed to identify if cultural resources are present and to what level they would be affected by the proposed Federal undertaking. The Proposed Action would not change land use patterns, no ground disturbing activities would take place, and water from this assignment comes from an existing allocation which would not require additional diversions. As such, the Proposed Action has no potential to affect historic properties pursuant to 36 CFR 800.3(a)(1).

5.5 Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.)

The Migratory Bird Treaty Act implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

The Proposed Action would not change land use patterns, no ground disturbing activities would take place, and water from this assignment comes from an existing allocation which would not require additional diversions. Based upon the above limitations, Reclamation has determined the exchange of AEWS's CVP water for MWD's SWP water would not impact migratory birds.

5.6 Executive Order 11988 – Floodplain Management and Executive Order 11990 – Protection of Wetlands

Executive Order 11988 requires Federal agencies to prepare floodplain assessments for actions located within or affecting flood plains, and similarly, Executive Order 11990 places similar requirements for actions in wetlands. The Proposed Action would not affect either concern as there are none in the Proposed Action location.

Section 6 List of Preparers and Reviewers

Reclamation

Rena Ballew, Repayment Specialist, SCCAO – Reviewer/Preparer

Jennifer Lewis, Ph. D., Wildlife Biologist, SCCAO -Preparer

Scott Williams, Archaeologist, MP-153-Preparer

Patricia Rivera, Indian Trust Assets, MP-400

Chuck Siek M.A., Supervisory Natural Resource Specialist-Preparer

Provost and Prichard

Rick Besecker, Water Resources Specialist

Richard Moss, Principle Engineer

Arvin-Edison Water Storage District

Steve Collup

Jeevan Muhar

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Section 7 References

- Addendum, 2002. Addendum to the Negative Declaration for the Arvin-Edison Water Management Project. Metropolitan Water District. December, 2002.
- Anderson, J., F. Chung, M. Anderson, L. Brekke, D. Easton, M. Ejetal, R. Peterson, and R. Snyder. 2008. Progress on Incorporating Climate Change into Management of California's Water Resources. *Climatic Change* (2008) 87 (Suppl 1):S91–S108 DOI 10.1007/s10584-007-9353-1.
- California Air Resources Board. 2011. California Air Basins. Website: <http://www.arb.ca.gov/knowzone/basin/basin.htm> Accessed: August 2011.
- California Department of Conservation (DOC) 2010 . Official Maps of Earthquake Fault Zones delineated by the California Geological Survey through December 2010. Website: http://www.quake.ca.gov/gmaps/ap/ap_maps.htm. Accessed: August 2011.
- California Department of Toxic Substances Control. 2011. Website: <http://www.envirostor.dtsc.ca.gov/public/> Accessed: August 2011.
- California Department of Fish and Game Natural Diversity Database (CNDDB). 2012. RareFind version 3.1.1 (data from 1/1/12) accessed January 2012.
- California Department of Water Resources (DWR). 2003. *California's Groundwater: Bulletin 118 Update 2003*. Sacramento, CA.
- Environmental Protection Agency (EPA). 2011a. Climate Change, Basic Information. Website: <http://www.epa.gov/climatechange/basicinfo.html>. Accessed: March 2011.
- Environmental Protection Agency (EPA). 2011b. Climate Change, Science. Website: <http://www.epa.gov/climatechange/science/index.html>. Accessed: March 2011.
- Hansen, G. E., and J. M. Brode. 1980. Status of the giant garter snake, *Thamnophis couchi gigas* (Fitch). California Department of Fish & Game, Inland Fisheries Endangered Species Program Special Publication Report. 80-5: 1-14.
- Kern County Planning Department (KCPD) 2007. Kern County General Plan, 2007. Website: <http://www.co.kern.ca.us/planning/pdfs/kcgp/KCGP.pdf>. Accessed: August, 2011.
- Program (Water Management Program). 1996. Arvin-Edison Water Management Project Initial Study/Negative Declaration. Arvin-Edison Water Storage District. May, 1996.
- Reclamation (Bureau of Reclamation). 1999. Final Programmatic Environmental Impact Statement for the Implementation of the CVPIA. October 1999.

Reclamation (Bureau of Reclamation). 2009. Arvin-Edison Water Storage District / Metropolitan Water District 2009-2010 Water Exchange Program Final Environmental Assessment and Finding of No Significant Impact. Updated December 2009.

Reclamation (Bureau of Reclamation). 2009a. San Joaquin River Restoration Program Water Year 2010 Interim Flows Project Final Environmental Assessment/Initial Study and Finding of No Significant Impact/Mitigated Negative Declaration. September 9, 2009.

Reclamation (Bureau of Reclamation). 2010. Arvin-Edison Water Storage District / Metropolitan Water District 2010-2011 Water Exchange Program Final Environmental Assessment and Finding of No Significant Impact. September 2010.

Reclamation (Bureau of Reclamation). 2010a. Bureau of Reclamation website:
http://www.usbr.gov/projects/Project.jsp?proj_Name=Friant%20Division%20Project.
Accessed: July, 2010.

Reclamation (Bureau of Reclamation). 2010b. Recirculation of Recaptured Water Year 2011 San Joaquin River Restoration Program Interim Flows Final Environmental Assessment and Finding of No Significant Impact. May 24, 2011.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2011. Ambient Air Quality Standards and Valley Attainment Status. Website:
<http://www.valleyair.org/aqinfo/attainment.htm>. Accessed: March 2011.

Taylor, D. W., and W. B. Davilla. 1986. Status survey of three plants endemic to the San Joaquin Valley and adjacent areas, California. U.S. Fish and Wildlife Service, Sacramento, CA, 131 pp.

U.S. Census Bureau. 2011. County Quick Facts. Website:
<http://quickfacts.census.gov/qfd/states/06000.html>. Accessed: March 2011.

USFWS (U.S. Fish and Wildlife Service). 2012. Sacramento Field Office: Federal Species List (document number 120118023519). Website:
http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists-form.cfm. Accessed: January 2012.

USFWS (U.S. Fish and Wildlife Service). 2012. Federal Species List from Ventura and Carlsbad Service: via the - Information, Planning, and Conservation System (IPaC) website,
<http://ecos.fws.gov/ipac/> on January 18, 2012 (Version 1.4).

Appendix A – Environmental Commitments

Environmental Commitment Program

This form must accompany all Federal discretionary action approvals that require compliance with the National Environmental Policy Act and other applicable environmental laws.

Environmental Document¹: 11-085

On January 14, 2011 the President's Council on Environmental Quality (CEQ) issued guidance for Federal agencies to implement, monitor and evaluate environmental commitments identified in Environmental Assessments and Environmental Impact Statements completed for compliance with the National Environmental Policy Act (NEPA). This guidance also pertains to Categorical Exclusions when environmental commitments have been identified in order to meet the requirements for exclusion.

The Bureau of Reclamation's NEPA Handbook provides guidance on the establishment of an Environmental Commitment Program (ECP) to meet the CEQ guidance. The ECP is a system designed to implement, monitor and evaluate the environmental commitments identified in the NEPA document. These commitments fall under one or more of the following categories:

1. Commitments where no construction or ground disturbance is involved

These commitments are typically associated with water transfers, exchanges, Warren Act contracts and similar actions.

Required ☒ Not Required ☐

2. Commitments where construction or ground disturbance is involved

These commitments are typically associated with short-term construction impacts resulting from modifications to Federal facilities or modifications to non-Federal facilities where there is a Federal nexus such as Federal funds or approvals.

Required ☐ Not Required ☒

3. Long-term commitments

These commitments are typically associated with larger construction or ground disturbing activities where impacts to resources such as wetlands, special status species habitat or water quality may occur that require long-term mitigation and monitoring.

Required ☐ Not Required ☒

Note: If the "Not Required" boxes are checked on all three commitment categories, no further action is required. If any of the required boxes are checked please refer to the following Environmental Commitment table for a summary of the commitments required for environmental compliance. Please direct any questions or comments regarding the Environmental Commitment Program to:

Chuck Siek, Supervisory Natural Resources Specialist
Department of Interior, Bureau of Reclamation
1243 "N" Street, Fresno, CA 93721
(559) 487-5138 email at csiek@usbr.gov

¹ Environmental Document types include: Categorical Exclusion, Environmental Assessment/Finding of No Significant Impact and Environmental Impact Statement/Record of Decision

**South-Central California Area Office
Environmental Commitment Table
Environmental Document: 11-085**

Assigned Natural Resource Specialist & contact information: Chuck Siek (559) 487-5138 csiek@usbr.gov						To be completed by [proponent]		
Resource	Commitment Category ²	Summary of Environmental Commitments ³	Timeframe for Implementation ⁴	Verification of Compliance ⁵		[Proponent] Point of Contact ⁶	Verification of Compliance (Authorizing Official)	
				Initials	Date		Initials	Date
Biological Resources	1	The Proposed Action may not involve the conversion of any land fallowed and untilled for three or more years. The Proposed Action may not change the land use patterns of cultivated or fallowed fields potentially have some value to listed species or birds protected by the Migratory Bird Treaty Act.	Life of project			Jeevan Muhar, P.E. PO Box 175 Arvin, CA 93203	Project proponent(s) are to contact Natural Resource Specialist named above if any commitments have not or may not be complied with. Failure to notify will result in non-compliance with NEPA.	
Biological Resources	1	Exchange involving CVP and SWP water cannot alter the flow regime of natural water bodies such as rivers, streams, creeks, ponds, pools, wetlands, etc., so as to not have a detrimental effect on fish or wildlife, or their habitats.	Life of project			661-854-5573 office phone		
Water Quality	1	In continuance of commitments from the Program, existing Aqueduct Pump-in Facilitation Group guidelines would be followed by both AEWS and KCWA when introducing water into the Aqueduct to insure that water quality would not be adversely impacted.	Life of project			email: jmuhar@aebsd.org		

Existing environmental documents: Reclamation would continue to require compliance with all commitments imposed by existing environmental documents, such as Biological Opinions and Programmatic Agreements.

Funding: The project proponent is responsible for all direct costs to implement, monitor and evaluate the environmental commitments described in the following table. The project proponent is also responsible for the costs incurred by Reclamation staff to monitor and evaluate the environmental commitments.

²List category numbers checked on first page

³ Summarize environmental commitments from environmental document completed for action

⁴ List when environmental commitments must start/end

⁵ Verification by Reclamation that all environmental commitments have been implemented and a summary report has been completed as required

⁶ Proponent point of contact may be the individual responsible for a specific commitment or the Authorizing Official responsible for overall environmental compliance.

RECLAMATION

Managing Water in the West

Arvin-Edison Water Storage District and Metropolitan Water District 12-Month Water Exchange Project

Draft FONSI-11-085

Recommended by:

Chuck Siek
Supervisory Natural Resources Specialist
South-Central California Area Office

Date: _____

Concurred by:

Randy English
Chief, Resources Management Division
South-Central California Area Office

Date: _____

Approved by:

Acting Deputy Area Manager
South-Central California Area Office

Date: _____



Introduction

In accordance with section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, as amended, the South-Central California Area Office of the Bureau of Reclamation (Reclamation) has determined that an Environmental Impact Statement is not required for the Arvin-Edison Water Storage District and Metropolitan Water District 12-Month Water Exchange Project.

This Draft Finding of No Significant Impact (FONSI) has been completed to document the findings of Environmental Assessment (EA) 11-085 that was prepared to examine the potential direct, indirect and cumulative impacts of the Arvin-Edison Water Storage District (AEWSD) and Metropolitan Water District (MWD) 12-Month Water Exchange Project.

Background

In December 1997, AEWSD entered into a long-term Water Management Program (Program) with MWD. Under the Program, up to 350,000 acre-feet (AF), after a 10 percent loss is applied, of MWD's State Water Project (SWP) supply could be banked within AEWSD's groundwater bank at any one time. Upon request, AEWSD would return MWD's previously banked SWP water. This would typically occur during certain dry hydrological periods when MWD needs to supplement its water supply.

In December 2009 Reclamation approved an EA/FONSI to deliver of up to 40,000 AF per year of AEWSD's Central Valley Project (CVP) supplies to MWD in-lieu of pumping with the return of a like-amount of MWD's previously banked SWP supplies under the Program. In September 2010, Reclamation approved an EA/FONSI for similar exchanges.

This Proposed Action is similar to the exchange approved in 2009 and 2010, which was made possible due to the temporary consolidation of the CVP and SWP places-of-use and points-of-diversion from June 2009 to October 2011.

Proposed Action

The Proposed Action would:

- 1) Deliver AEWSD's CVP water to MWD in exchange for previously banked MWD SWP water in order to reduce energy use and associated costs (note: MWD delivers to AEWSD first);
- 2) Deliver up to 100,000 AF of AEWSD's CVP water to MWD during times when AEWSD supplies exceed current demand after which MWD would return a like amount of SWP water, metered at the California Aqueduct to AEWSD later in the 12-month period.

Both actions would require a temporary change to Reclamation's Consolidated Place of Use and Friant Division Place of Use through petition of the State Water Resources Control Board, which is currently under review.

Reclamation's finding that implementation of the Proposed Action will result in no significant impact to the quality of the human environment is supported by the following findings:

Findings

Water Resources

The Proposed Action would not increase groundwater pumping from what has historically occurred within the Kern County Subbasin by AEWSD, but has the potential to reduce groundwater pumping. Surface water imported into the district is used to recharge the groundwater through AEWSD's many spreading works if not used directly for agricultural irrigation purposes.

Aside from the 10 percent loss factor left in the groundwater bank as part of the Program, there would be no net gain or loss to groundwater levels underlying AEWSD from implementing the Proposed Action. There would be no measurable changes to the groundwater basin underlying MWD since the water would be used for municipal and industrial purposes, and little, if any, water would seep into the groundwater basin. The supplemental water would be used to satisfy current customers' needs and could alleviate the region's reliance on groundwater pumping; however, groundwater pumping as part of the region's conjunctive use practice would continue as has historically occurred and would occur with or without the Proposed Action.

The Cross Valley Canal (CVC), CVP and SWP facilities would not be impacted as the Proposed Action must be scheduled and approved by Kern County Water Agency (KCWA), Reclamation, and Department of Water Resources, respectively. Existing Aqueduct Pump-in Facilitation Group guidelines would be followed by both AEWSD and KCWA when introducing water into the Aqueduct to insure that water quality would not be adversely impacted.

No adverse cumulative impacts to water resources would occur as the Proposed Action would likely have similar results as the No Action Alternative as surface water would be delivered to the same general area for irrigation and recharge.

Land Use

AEWSD would not experience a decrease in water supply that would impact existing irrigated farmlands within its service area, nor would the banked water be used to cultivate native or fallowed land that has been in those conditions for three or more consecutive years. MWD intends to use the exchanged CVP water to supplement its water supplies for existing municipal and industrial purposes within its service area, and would not contribute to any potential expansion within the area. Therefore, the Proposed Action would not have any impacts on existing land use.

In recent years, land use changes within the San Joaquin Valley have involved the urbanization of agricultural lands. These types of changes are typically driven by economic pressures and are as likely to occur with or without the Proposed Action; therefore, no cumulative effects to land use are expected as a result of the Proposed Action.

Biological Resources

The Proposed Action would not involve the conversion of any land fallowed and untilled for three or more consecutive years. The Proposed Action also would not change the land use patterns of cultivated or fallowed fields potentially having some value to listed species or birds protected by the Migratory Bird Treaty Act. Since no natural stream courses would be affected, there would be no effects on listed fish species. No critical habitat occurs within the area affected by the Proposed Action therefore, none of the primary constituent elements of any critical habitat would be affected. Considering the above limitations, Reclamation has determined that there would be No Effect to listed species or designated

critical habitat under the ESA (16 U.S.C. §1531 et. seq.) for the proposed federal action of approving these exchanges.

Existing conditions, such as loss of habitat due to urbanization and expanding agricultural lands that cumulatively impact listed species and their habitats, are expected to occur with or without the Proposed Action. The exchange of AEWS's CVP water for MWD's SWP water is not expected to contribute cumulatively to habitat loss as this water would be used consistent with current uses. Therefore, there would be no cumulative adverse impacts to biological resources as a result of the Proposed Action.

Cultural Resources

All exchanges would occur through existing facilities and water would be provided within existing service area boundaries to areas that currently use water. The Proposed Action would not result in modification of any existing facilities, construction of new facilities, change in land use, or growth. Because the Proposed Action would result in no physical alterations of existing facilities and no ground disturbance, Reclamation concludes that the Proposed Action has no potential to cause effect to historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1), and would result in no impacts to cultural resources.

No cumulative impacts would result from the proposed action as there is no land disturbance or direct impacts.

Indian Sacred Sites

At this time, no Indian sacred sites have been identified. In addition, the Proposed Action would not impede access to or ceremonial use of Indian sacred sites. If sites are identified in the future, Reclamation would comply with Executive Order 13007. This would ensure that no cumulative impacts would occur that could impede access to or ceremonial use of Indian sacred sites due to the Proposed Action.

Indian Trust Assets

Approval of the exchange between AEWS and MWD would not involve any construction on lands or impact water, hunting, and fishing rights associated with the nearest Indian Trust Asset (ITA) listed in the affected environment. Therefore, the Proposed Action does not have a potential to affect ITA.

There are no ITA in the action area; therefore, the Proposed Action when added to previous and reasonably foreseeable banking activities do not contribute to cumulative impacts to ITA.

Environmental Justice

The Proposed Action would have a slight beneficial contribution to minority or disadvantaged populations as it would help support and maintain jobs that low-income and disadvantaged populations rely upon due to increased irrigation water supply reliability.

Socioeconomic Resources

Agricultural practices within AEWS would be within historical conditions and would not be adversely impacted by the implementing the Proposed Action. Over the long term, the Proposed Action would benefit AEWS by increasing groundwater levels and dry year supplies. Improved conjunctive use operations and in-lieu banking could also allow AEWS's farmers to utilize surface supplies instead of groundwater supplies at times when MWD banks water. This would subsequently help to maintain the economic viability of irrigated agriculture within the district. When added to other similar existing and

proposed actions, the Proposed Action could contribute to beneficial cumulative impacts to socioeconomic resources within AEWSD.

Air Quality

Delivery of water would require no modification of existing facilities or construction of new facilities. In addition, water would be moved either via gravity or electric motors/pumps which would not produce emissions that impact air quality. Therefore, a conformity analysis is not required and there would be no impact to air quality as a result of the Proposed Action.

There would be no cumulative impacts to air quality as there would be no emissions that impact air quality or construction activities that would produce emissions that could cumulatively impact air quality.

Global Climate

Electric pumps produce CO₂ that could potentially contribute to GHG. However, water under the Proposed Action is water that would be delivered from the FKC with or without the Proposed Action and is therefore part of the existing conditions. There would be no additional impacts to GHG as a result of the Proposed Action.

Impacts from GHG are considered to be cumulative impacts; however, delivery of water with or without the Proposed Action is part of the existing baseline conditions of the Central Valley and is not expected to produce additional GHG that could contribute to global climate change.

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Environmental Commitment Table
Environmental Document: 11-085

South-Central California Area Office

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