STATE WATER PROJECT WATER SUPPLY CONTRACT AMENDMENTS FOR WATER MANAGEMENT

FINAL ENVIRONMENTAL IMPACT REPORT

State of California
Natural Resources Agency
Department of Water Resources

August 2020

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The Resources Agency
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GAVIN NEWSOM
Governor
State of California

WADE CROWFOOT
Secretary for Resources
The Resources Agency

KARLA NEMETH
Director
Department of Water Resources

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1. Introduction

1 INTRODUCTION

1.1 INTRODUCTION

In October 2018, the Department of Water Resources (DWR) circulated the State Water Project Water Supply Contract Amendments for Water Management and California Waterfix Draft Environmental Impact Report (2018 DEIR), State Clearinghouse Number 2018072033, to provide the public and responsible and trustee agencies information about the potential environmental effects of implementing State Water Project Water Supply Contract Amendments for Water Management and California WaterFix. The 2018 DEIR was circulated for a 45-day comment period and one extension was given to allow those who were affected by the Camp Fire additional time to review and comment which allowed for a total comment period of 76 days from October 26, 2018 to January 9, 2019. During the public review period two public meetings were held (November 16 and November 30, 2018) and 15 comment letters were received.

On February 12, 2019 Governor Newsom announced in the State-of-the-State speech that he did not support the WaterFix as it was configured at that time. Rather, he stated support for a single tunnel. On April 29, 2019, Governor Newsom issued Executive Order N-10-19 which directed the California Natural Resources Agency, California Environmental Protection Agency, California Department of Food and Agriculture, in consultation with the Department of Finance, to prepare a water resilience portfolio that meets the needs of California's communities, economy, and environment through the 21st century. On May 2, 2019, Director Karla Nemeth issued a memo to the Delta Conveyance Office (DCO) that she was withdrawing approval of California WaterFix and further directed the DCO to notify the State Clearinghouse that DWR rescinds the Notice of Determination (NOD).

Director Nemeth also set aside DWR's July 21, 2017 certification and rescinded the adoption of findings, statement of overriding considerations, and Mitigation, Monitoring and Reporting Plan, and project approval. Because of the withdrawal of California WaterFix project approval and rescission of the NOD, all other Department approvals related to California WaterFix based on the NOD filed July 21, 2017, were also rescinded. As a result, DWR prepared a Partially Recirculated Draft EIR (2020 Partially Recirculated DEIR) for the proposed project that removed California WaterFix cost allocation and instead focused the analysis exclusively on water management regarding transfers and exchanges of State Water Project (SWP) water amongst State Water Contractor Public Water Agencies (PWAs).

The June 27, 2018 Draft Agreement in Principle for the SWP Water Supply Contract Amendment for Water Management and California Waterfix (June 2018 AIP) described the proposed project evaluated in the 2018 DEIR. Because approval of the California WaterFix was set aside, on May 20, 2019 DWR and the SWP Public Water Agencies (PWAs) held a public meeting to negotiate an amendment to the June 2018 AIP that proposed removal of the provisions of the State Water Resources Development System (SWRDS) Water Supply Contracts (Contracts) that would address an equitable approach for cost allocation of California WaterFix. Based on the May 20, 2019 negotiation, cost allocation is no longer part of the AIP; however, the following Contract amendments proposed in the June 2018 AIP remain unchanged:

- Add, delete, modify, and clarify conditions and terms to the agreements for transfers and exchanges of SWP water among the PWAs.
- Allow multi-year transfers of SWP water between PWAs that include terms developed by the PWAs to the agreements, including quantity, duration, and compensation, and that such transfers may be packaged in two or more transfer agreements between the same PWAs.
- Clarify provisions related to the exchanges of SWP water between PWAs.
- Establish reporting requirements for transfers and exchanges of SWP water by PWAs.
- Establish terms for transfer and exchange of stored SWP water/carryover water.

Therefore, the proposed project described in the 2020 Partially Recirculated DEIR would add, delete and modify provisions of the Contracts and clarify certain terms of the Contracts based on the May 2019 AIP. The Partially Recirculated DEIR was published on February 28, 2020 and circulated for 94 days through June 1, 2020. No additional public meetings were held and 3 additional comment letters were received.

This document is the Final EIR (FEIR) for the proposed project and it contains written responses to all comments received by DWR from agencies and the public on the 2018 DEIR and 2020 Partially Recirculated DEIR (referred to as the DEIR in the FEIR unless otherwise noted). Because multiple comments were received that addressed a number of key issues, DWR prepared comprehensive responses addressing these issues (master responses). Each master response provides background regarding the specific issue, how the issue was addressed in the DEIR, and additional clarification and explanation as appropriate to address the comments. In addition, individual responses to comments received were prepared. The responses to comments clarify and amplify text in the DEIR and do not change the findings or conclusions of the DEIR. This FEIR also includes a list of commenters, and comment letters received.

This FEIR has been prepared in accordance with the California Environmental Quality Act (CEQA) and together with the DEIR (and appendices) constitutes the EIR for the proposed project.

1.2 SUMMARY OF PROPOSED PROJECT AND PROJECT OBJECTIVES

The proposed project includes amending certain provisions of the State Water Resources Development System (SWRDS) Water Supply Contracts (Contracts). SWRDS (defined in Water Code Section 12931), or more commonly referred to as the SWP, was enacted into law by the Burns-Porter Act, passed by the Legislature in 1959 and approved by the voters in 1960. DWR constructed and currently operates and maintains the SWP, a system of storage and conveyance facilities that provide water to 29 State Water Contractors known as the PWAs.[1] The Contracts include water management provisions for actions such as the transfer or exchange of SWP water between PWAs, as well as financial provisions including the methods used by DWR to recover certain costs associated with the planning, construction, and operation and maintenance of SWP facilities.

DWR and the PWAs have a common interest to ensure the efficient delivery of SWP water supplies and to ensure the SWP's financial integrity. In order to address water management flexibility DWR and the PWAs agreed to the following objectives:

- Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area.

The proposed project would add, delete, and modify provisions of the Contracts and clarify certain terms of the Contracts that will provide greater water management regarding transfers and exchanges of SWP water within the SWP service area. In addition, the proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts.[2] The proposed project would not

[1] The State Water Project Public Water Agencies include Alameda County Flood Control and Water Conservation District (Zone 7), Alameda County Water District, Antelope Valley-East Kern Water Agency, City of Yuba City, Coachella Valley Water District, County of Butte, County of Kings, Crestline-Lake Arrowhead Water Agency, Desert Water Agency, Dudley Ridge Water District, Empire West Side Irrigation District, Kern County Water Agency, Littlerock Creek Irrigation District, The Metropolitan Water District of Southern California, Mojave Water Agency, Napa County Flood Control and Water Conservation District, Oak Flat Water District, Palmdale Water District, Plumas County Flood Control and Water Conservation District, San Bernardino Valley Municipal Water District, San Gabriel Valley Municipal Water District, San Gorgonio Pass Water Agency, San Luis Obispo County Flood Control and Water Conservation District, Santa Barbara County Flood Control and Water Conservation District, Santa Clara Valley Water District, Santa Clarita WA (formerly Castaic Lake WA), Solano County Water Agency, Tulare Lake Basin Water Storage District, and Ventura County Flood Control District.

[2] The maximum amount of SWP water that the PWAs can request pursuant to their individual water supply contract. Annual Table A amounts also serve as a basis for allocation of some SWP costs among the contractors.

change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements. The May 20, 2019 AIP is included as Appendix A of the 2020 Partially Recirculated DEIR.

1.3 ORGANIZATION OF THE FEIR

The FEIR is organized as follows:

Chapter 1 – Introduction: This chapter summarizes the proposed project, describes the content and format of the FEIR, summarizes the public participation and review process and describes the CEQA certification and project approval process.

Chapter 2 – Responses to Comments: This chapter includes a list of the comment letters received followed by the comment letters and responses to the comments contained in each letter. The responses to comments are numbered consistent with the comment number for each letter. For example, the response to the first comment in Comment Letter 1 is Response to Comment 1-1. This chapter also includes the master responses prepared in response to comments received. Each master response is numbered and that number is referenced in a response that incorporates the master response.

Attachment A – Comment letters received on the DEIR with attachments.

1.4 PUBLIC PARTICIPATION AND ENVIRONMENTAL REVIEW PROCESS

DWR notified all responsible and trustee agencies and interested groups, organizations, and individuals that the DEIR on the proposed project was available for review. The following list of actions took place during the preparation, distribution, and review of the DEIR:

- A Notice of Preparation (NOP) and Notice of Completion (NOC) were filed with the State Clearinghouse (State Clearinghouse Number (SCH #) 2018072033) on July 13, 2018 for public review ending on August 13, 2018.
- The NOP and information on the scoping meeting were provided to: (1) State, local and federal agencies; (2) 38 county clerk offices; (3) 39 local libraries; (4) 31 newspapers; and (5) other interested parties. The NOP was also made available by request to DWR.
- One scoping meeting was held on August 2, 2018 in the Resources Building Auditorium, 1416 Ninth Street, Sacramento, CA 95814 from 11 a.m. to 1 p.m.
- The NOC and the 2018 DEIR were filed with the State Clearinghouse on July 13, 2018 with public review ending on August 13, 2018. The NOC and the

2020 Partially Recirculated DEIR were filed with the State Clearinghouse on February 28, 2020.

- Notices of Availability (NOA) for the 2018 DEIR and the 2020 Partially Recirculated DEIR and information on the public hearing for the 2018 DEIR was provided to: (1) State, local and federal agencies; (2) 28 local libraries; (3) 28 county clerk offices; (4) 29 newspapers; and (5) other interested parties. The NOA and the DEIR were also made available by request to DWR.
- A public meeting to receive comments on the 2018 DEIR was held in Sacramento on November 16, 2018 in the Resources Building Auditorium, 1416 Ninth Street, Sacramento, CA 95814 from 11 a.m. to 1 p.m. No additional public meeting was held for the 2020 Partially Recirculated DEIR.
- Copies of the 2018 DEIR and 2020 Partially Recirculated DEIR, including appendices, were available for public review at DWR's State Water Project Analysis Office during normal business hours located at 1416 Ninth Street Room 1620, Sacramento, CA 95814. The documents were also made available by request to DWR.

1.5 CEQA CERTIFICATION AND PROJECT APPROVAL

Before DWR makes a decision with regard to the proposed project, CEQA Guidelines Section 15090(a) requires that DWR first certify that the EIR has been completed in compliance with CEQA, that DWR has reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment and analysis of DWR.

In the event DWR approves the proposed project, CEQA requires that it file a Notice of Determination and adopt appropriate findings as set forth in CEQA Guidelines Section 15091. Under CEQA Guidelines Section 15092, a lead agency may only approve or carry out a project subject to an EIR if it determines that: (1) that project will not have a significant effect, or (2) that the agency has eliminated or substantially lessened all significant effects on the environment where feasible and any remaining significant effects on the environment that are found to be unavoidable are acceptable due to overriding considerations. As described above, this EIR may also be used by the PWAs, as responsible agencies under CEQA, in their discretionary approval processes within their jurisdictions to meet their CEQA requirements.

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2. Responses to Comments

2 RESPONSES TO COMMENTS

2.1 INTRODUCTION

This chapter contains written responses to all comments received by DWR from agencies and the public on the DEIR. Table 2-1 lists all of the parties who submitted comments on the DEIR during the public comment period. Comments 1 through 17 were provided during the public comment period for the 2018 DEIR. Comments 18 through 20 were provided during the public comment period for the 2020 Partially Recirculated DEIR. See Chapter 1 in the FEIR and Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR for additional information.

Bracketed comment letters are included in Appendix A of this FEIR.

TABLE 2-1.
LIST OF COMMENTERS

Letter #	Commenter
1	San Diego County Water Authority
2	Plumas County Flood Control & Conservation District
3	Butte County Water & Resource Conservation
4	North Delta Water Agency
5	Souri Meserve on behalf of Local Agencies of the North Delta, San Joaquin County, and Butte County
6	Somach Simmons & Dunn on behalf of Sacramento County and Sacramento County Water Agency
7	Mohan, Harris, Ruiz, Wortmann, Perisho & Rubino, LLP on behalf of the South Delta Water Agency and the Central Delta Water Agency
8	Contra Costa County and Solano County
9	Downey Brand on behalf of 27 Commenting Parties
10	Semitropic Water Storage District, Tulare Lake Basin Water Storage District, Wheeler Ridge-Maricopa Water Storage District, Kern-Delta Water District, Belridge Water Storage District, Lost Hills Water District, Berrenda Mesa Water District, Henry Miller Water District, Oak Flat Water District
11	Law Offices of Stephan Volker on behalf of North Coast Rivers Alliance, Pacific Coast Federation of Fishermen's Associations, Institute for Fisheries Resources, San Francisco Crab Boat Owners Association, and Winnemem Wintu Tribe
12	AquaAlliance, California Water Impact Network, Center for Food Safety, California Sportfishing Protection Alliance
13	California Sportfishing Protection Alliance, Planning and Conservation League, Friends of the River, California Water Impact Network, Center for Biological Diversity, Restore the Delta, Environmental Water Caucus, Center for Food Safety, Friends of the River
14	Natural Resources Defense Council
15	Restore the Delta
16	Public Meeting Transcript – November 16, 2018
17	Public Meeting Transcript – November 30, 2018
18	Delta Stewardship Council
19	Ventura County Public Works Watershed Planning and Permits Division
20	Dudley Ridge Water District

2.2 MASTER RESPONSES

Because multiple comments were received that addressed a number of key issues, DWR prepared comprehensive responses addressing these issues (master responses). Each master response provides background regarding the specific issue, how the issue was addressed in the DEIR, and additional clarification and explanation as appropriate to address the comments. Each master response is numbered and that number is referenced in a response that incorporates the master response. The following master responses were prepared for this FEIR:

1. Changes in Proposed Project Since Publication of the 2018 DEIR
2. Definition of the Proposed Project
3. Program versus Project Level of Analysis
4. Range of Alternatives
5. Relationship to other Plans, Projects, and Regulatory Compliance

Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR

Changes in Proposed Project Since Publication of the 2018 DEIR

In October 2018, DWR circulated the State Water Project Water Supply Contract Amendments for Water Management and California WaterFix Draft Environmental Impact Report (2018 DEIR), State Clearinghouse Number 2018072033, to provide the public, responsible agencies, and trustee agencies information about the potential environmental effects of implementing State Water Project Water Supply Contract Amendments for Water Management and California WaterFix. The 2018 DEIR was circulated for a 45-day comment period and one extension was given to allow those who were affected by the Camp Fire additional time to review and comment which allowed for a total comment period of 76 days from October 26, 2018 to January 9, 2019. During the public review period two public meetings were held (November 16 and November 30, 2018) and 15 comment letters were received, but a Final EIR had not been completed. On February 12, 2019 Governor Newsom announced in his State-of-the-State speech that he did not support California WaterFix as it was configured at that time. Rather, he stated support for a single tunnel. On April 29, 2019, Governor Newsom issued Executive Order N-10-19 which directs:

> "The California Natural Resources Agency, the California Environmental Protection Agency, the California Department of Food and Agriculture, in consultation with the Department of Finance, shall together prepare a water resilience portfolio that meets the needs of California's communities, economy, and environment through the 21st century. These agencies will

> reassess priorities contained within the 2016 California Water Action Plan, update projected climate change impacts to our water systems, identify key priorities for the administration's water portfolio moving forward, and identify how to improve integration across state agencies to implement these priorities."

On May 2, 2019, DWR Director Karla Nemeth issued a memo to the Delta Conveyance Office (DCO) stating that she was withdrawing approval of California WaterFix and further directed the DCO to notify the State Clearinghouse that DWR rescinds California WaterFix's Notice of Determination (NOD).

Director Nemeth also set aside DWR's July 21, 2017 certification and rescinded the adoption of findings, statement of overriding considerations, and Mitigation, Monitoring and Reporting Plan, and project approval of California WaterFix. Because of the withdrawal of California WaterFix project approval and rescission of the NOD, all other Department approvals related to California WaterFix based on the NOD filed July 21, 2017, were also rescinded. Therefore, DWR determined it was necessary to develop a Partially Recirculated Draft EIR (2020 Partially Recirculated DEIR) for the proposed project that removed California WaterFix cost allocation and instead focused the analysis exclusively on water management regarding transfers and exchanges of State Water Project (SWP) water amongst State Water Contractor Public Water Agencies (PWAs).

The June 27, 2018 Draft Agreement in Principle for the State Water Project Water Supply Contract Amendment for Water Management and California Waterfix (June 2018 AIP) described the proposed project evaluated in the 2018 DEIR. Because approval of California WaterFix was set aside, on May 20, 2019, DWR and the SWP PWAs held a public meeting to negotiate an amendment to the June 2018 AIP that proposed removal of the provisions of the State Water Resources Development System (SWRDS) Water Supply Contracts (Contracts) that would address an equitable approach for cost allocation of California WaterFix. Based on the May 20, 2019 negotiation, cost allocation is no longer part of the AIP; however, the following Contract amendments proposed in the June 2018 AIP related to water management remain unchanged and are evaluated in the State Water Project Water Supply Contract Amendments for Water Management Partially Recirculated DEIR, published February 2020 (2020 Partially Recirculated DEIR):

- Add, delete, modify, and clarify conditions and terms to the agreements for transfers and exchanges of SWP water among the PWAs.
- Allow multi-year transfers of SWP water between PWAs that include terms developed by the PWAs to the agreements, including quantity, duration, and compensation, and that such transfers may be packaged in two or more transfer agreements between the same PWAs.

- Clarify provisions related to the exchanges of SWP water between PWAs.
- Establish reporting requirements for transfers and exchanges of SWP water by PWAs.
- Establish terms for transfer and exchange of stored SWP water/carryover water.

The May 20, 2019 AIP (May 2019 AIP) is included as Appendix A of the 2020 Partially Recirculated DEIR.

Separate public negotiations between DWR and the PWAs addressing a possible contract amendment for cost allocation in anticipation of a single tunnel project have been initiated and are on-going. For more information on the scope of the proposed project please see Master Response 2: Definition of the Proposed Project.

Master Response 2: Definition of Proposed Project

Comments were received that questioned if DWR had evaluated the “whole of the action” and if the proposed project was adequately defined and evaluated in the DEIR. Specific comments were also provided addressing the relationship between the proposed project, California Waterfix, and the Contract Extension Project, stating that these projects should be considered as one when defining the whole of the action evaluated in the DEIR.

Definition of the Proposed Project

Under CEQA Guidelines Section 15378, "project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment…” Under CEQA Guideline Section 15124(b), the project description is required to include a statement of objectives sought by the proposed project. The statement of objectives “will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project and may discuss the project benefits.”

The DEIR provides a clear, accurate, and stable project description to determine the project’s environmentally significant effects, associated mitigation, and alternatives to the proposed project. The DEIR did not limit the analysis of the environmental impacts as suggested by multiple commenters. Chapter 5 *Environmental Analysis* of the DEIR identified and analyzed potential direct and indirect environmental impacts associated with the proposed changes to the Contract reflected in the negotiated May 2019 AIP and as defined in the project description and discussed further below.

Development of the Agreement in Principal

DWR, as the lead agency, has the discretion to select the project objectives consistent with the issues they are trying to address in the public negotiations on the Contract amendment with the PWAs.

As described in Chapter 4 *Project Description*, DWR and the PWAs have a common interest to ensure the efficient delivery of SWP water supplies and to ensure the SWP's financial integrity. As a result, beginning in 2014, public negotiation sessions were conducted between DWR and the PWAs to develop an AIP to address amending the Contracts to confirm and supplement certain provisions for several water management actions, including transfers and exchanges, and to address changes in financial provisions related to the cost of California WaterFix. As part of the public negotiations for the AIP, DWR and the PWAs agreed to the following objectives to guide development of the June 27, 2018 Draft Agreement in Principle for the SWP Water Supply Contract Amendment for Water Management and California WaterFix (June 2018 AIP) which was the proposed project evaluated in the 2018 DEIR:

1. Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area.
2. Provide a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity.

As described in Master Response 1, because approval of the California WaterFix was set aside, on May 20, 2019 DWR and the SWP PWAs held a public meeting to negotiate an amendment to the June 2018 AIP that proposed removal of the provisions of the Contracts that would address an equitable approach for cost allocation of California WaterFix. As a result, cost allocation is no longer part of the AIP and no longer part of the proposed project under consideration and objective #2 was removed. Objective #1 was not changed. The May 20, 2019 public meeting was the last held with regards to revising the June 2018 AIP and the resulting AIP agreed upon from that May 20, 2019 meeting is the AIP being used by DWR and the PWAs as the proposed project evaluated in the DEIR.

The proposed project includes additions, deletions, and modifications to provisions of the Contracts and clarification of certain terms of the Contracts to provide greater water management regarding transfers and exchanges of SWP water within the SWP service area. The proposed project also includes amendments that include administrative modifications that would not result in direct or indirect physical changes to the environment. These components of the project description as presented in the May

2019 AIP remain unchanged from the June 2018 AIP. The details of the proposed project are presented in Chapter 4 *Project Description* of the DEIR, and Appendix A, May 20, 2019 Agreement in Principle Concerning the State Water Project Water Supply Contract Amendments for Water Management.

Transfers and Exchanges

As described in Chapter 4, The proposed project could increase the frequency, duration, and timing of water transfers and exchanges among the PWAs than under the current Contract provisions.

The proposed project would amend Contract provisions to allow the PWAs to enter into water transfers, as primarily defined in amended Contract Article 56. More specifically, under the proposed project, PWAs would be allowed to transfer or exchange project water stored outside its service area with another PWA. The amended Contract Article 56 specifies limitations to the amount of stored project water a PWA would be able to transfer or exchange and sets forth dates by which PWAs must identify how much stored project water they intend to make available for transfers or exchanges in the following year. The proposed project would amend the Contract provisions to allow for limited transfers of Article 21 water by a limited number of PWAs or if the PWA can demonstrate a special need which would be evaluated by DWR.

Water resource managers face many challenges in managing their SWP water supplies in a changing climate. The proposed amendment seeks to provide a more resilient SWP water portfolio for the PWAs to meet these changing needs. The proposed transfer provisions, along with the ability for PWAs to both buy and sell water in the same year, would provide the PWAs with increased flexibility for short-term and long-term planning and management of their SWP water supplies. They would not include any change to the PWA's permanent Annual Table A amounts and would continue to be subject to DWR review and approval. This process requires the PWA to submit to DWR the quantity of water to be transferred or exchanged, identify the PWAs or parties involved and which reaches of the California Aqueduct that would be used, and provide any CEQA or environmental permitting or notification required for the transfer or exchange. If there is an agreement between PWAs to effectuate the transfer or exchange this must also be provided to DWR. As described in the May 2019 AIP in section 3.2, DWR reviews the submittal package to ensure that the transfer or exchange complies with the PWA's existing water supply contracts, does not create adverse conditions within their service area, and does not harm non-participating PWAs. Additionally, the proposed transfer or exchange is evaluated to ensure that it does not impact normal SWP

operations or the SWP's financial integrity, is consistent with DWR policy and follows all applicable environmental and water rights laws.

Exchanges have previously been approved by DWR pursuant to Articles 15(a), 41, and 56(f) of the Contract. The proposed project would provide the PWAs with increased flexibility for short-term and long-term planning of water supplies. Under the proposed project, exchanges may be used more frequently to respond to variations in hydrology, such as wet years, and in single dry-year and multiple dry-year conditions. Exchanges would also be subject to continued DWR approval.

The transfers allowed within the proposed project could potentially result in less SWP water supplied to agricultural PWAs and more to municipal and industrial (M&I) PWAs. Should agricultural PWAs elect to transfer their SWP water, most of the transfers and exchanges are expected to occur south of the Delta and would not affect SWP operations in the Delta nor make changes in releases or operations that impact the natural rivers or streams within the SWP place of use. For any north of Delta to south of Delta transfers or exchanges, the likely preferred source of water would be SWP supplies already exported through existing SWP operations and stored in San Luis Reservoir. As part of existing operations of the SWP, project water is moved through the Delta in compliance with regulatory, environmental, and operational criteria, and when possible, stored in San Luis Reservoir for later delivery to the contracting PWAs. North of Delta to south of Delta transfers or exchanges beyond that water stored in San Luis Reservoir would potentially result in a slight increase in exports but would be within existing operations of the SWP.

Proposed transfers and exchanges are currently, and would continue to be with implementation of the proposed amendments, to be considered on a case-by-case basis subject to DWR approval. As described in Section 5.1 *Method of Analysis* of the DEIR, because the precise location, amount and timing of future transfers and exchanges is not known at this time, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with appropriate project-level CEQA documentation that would assess any physical changes to the environment, along with any other applicable regulatory requirements.

In addition, as described in Chapter 4 of the DEIR, the proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts. The proposed project would not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements. Therefore, DWR is not changing its operations under the Contracts; DWR pumps water from the Delta in compliance with

all State and federal environmental laws and regulations and pursuant to its water right permits (see Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR.

Incomplete Project Description

Several comments received on the 2018 DEIR suggest that the Contract Amendment EIR should include the Contract Extension project and California Waterfix and; therefore, the DEIR failed to include a complete project description that includes all reasonably foreseeable elements of the SWP Contract Amendment projects. In addition, comments suggested that the DEIR failed to analyze the project in the context of the whole of the action, including other plans and programs. For additional information on the proposed project's relationship to other plans and programs, see Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance.

Legal Background

CEQA Guidelines Section 15165 provides that "[w]here one project is one of several similar projects of a public agency, but is not deemed a part of a larger undertaking or larger project, the agency may prepare one EIR for all projects, or one for each project, but shall in either case comment upon the cumulative effect. The California Supreme Court held that "an EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects. Absent these two circumstances, the future expansion need not be considered in the EIR for the proposed project*." Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal. 3d 376, 396. Multiple projects may properly undergo separate environmental review when the projects can be implemented independently (the "independent utility" test). *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1223-1224.

Independent Utility from California WaterFix

As it relates to California WaterFix, because California WaterFix has been set aside, it is no longer a project under CEQA. Furthermore, as described above, the May 2019 AIP proposes removal of certain provisions of the Contracts that would have addressed an equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity which were included in the June 2018 AIP that were evaluated in the 2018 DEIR. The provisions addressing terms and conditions of water management actions related to water transfers and exchanges remain unchanged. Therefore, the environmental analysis in the 2020 Partially Recirculated DEIR includes revisions that

remove evaluation of impacts associated with the WaterFix cost allocation provisions included in the June 2018 AIP. As a result, the comments that address issues of segmentation concerning the relationship to California WaterFix are no longer relevant.

Independent Utility from the Contract Extension Project

The scope of analysis in the DEIR is based on the project description provided in Chapter 4 *Project Description*. As stated on page 4-2 of the Partially Recirculated DEIR: "The proposed project would add, delete, and modify provisions of the Contracts and clarify certain terms of the Contracts that will provide greater water management regarding transfers and exchanges of SWP water within the service area. The project description is based on the May 2019 AIP negotiated between DWR and the PWAs (included as Appendix A of the 2020 Partially Recirculated DEIR). As further described, DWR and the PWAs agreed to the following objective: "(1) Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area." The proposed amendments do not include language that would modify financial terms of the Contracts or extend the term of the Contracts, as was proposed in the June 2104 AIP that was the project evaluated in the Contract Extension Project EIR.

DWR's decision to focus its analysis on the proposed project is justified in light of the proposed project's significant independent utility. As described in Chapter 6 of the Partially Recirculated DEIR on December 11, 2018, DWR filed a Notice of Determination certifying the adequacy of the EIR and approved the proposed Contract Extension project which would execute amendments to extend the Contracts and revise certain financial provisions with the PWAs. Extending the Contracts' expiration date to 2085 would enable DWR to finance SWP expenditures beyond 2035 and continue to receive a reliable stream of revenues from PWAs for the construction, operation, and maintenance of the SWP.

The proposed project can be implemented absent the Contract Extension project, as further described in Chapter 7 *Alternatives*, absent the Contracts being extended as a result of the Contract Extension project, PWAs can still submit Article 4[1] letters (at least 6 months prior to the existing expiration date for each Contract) which allows the term of the Contracts to be extended beyond their current expiration dates. Therefore, the

[1] Article 4 states that, by written notice to DWR at least 6 months prior to the expiration date of a Contract, the PWA can elect to receive continued service after the expiration of the term under the following conditions unless otherwise agreed to: (1) service of water in annual amounts up to and including the PWA's Annual Table A amount; (2) service of water at no greater cost to the PWA than would have been the case had the Contract continued in effect; (3) service of water under the same physical conditions of service, including time, place, amount, and rate of delivery; (4) retention of the same chemical quality objective provision; and (5) retention of the same options to use the SWP transportation facilities as provided for in Articles 18(c) and 55, as applicable.

proposed project is a separate, independent project from the Contract Extension project and the proposed project would occur with or without the Contract Extension project's actions that extend the existing Contracts' expiration date to 2085.

CEQA does not require DWR to analyze the proposed project in combination with the Contract Extension project as part of a single project in a single EIR because: (1) the proposed project and the Contract Extension project are not a reasonably foreseeable consequence of one another; and (2) the proposed project has significant independent utility, including independent benefits and independent purposes and objectives.

Master Response 3: Program versus Project Level Analysis

Comments were received stated that the DEIR is not adequate for project-level approvals of transfers and exchanges and that impacts associated with the increase in frequency, duration and timing of water transfers and exchanges must be analyzed at a project-level. Additional details as to source and use of the water transferred and exchanged should be included in the analysis were also requested.

Comments regarding the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required (see Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR). Also, see Master Response 2: Definition of Proposed Project for further discussion of the definition of the proposed project.

The DEIR is not defined as a project or program EIR. Defining the "project" for purposes of CEQA analysis does not in and of itself imply that the analysis is required to be at a "project-level". Under CEQA, "[a]n EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible." (CEQA Guidelines Section 15151). As described in CEQA Guidelines Section 15378, "project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment…" As the lead agency, DWR has the discretion to select the project objectives consistent with the issues they are trying to address. The proposed project evaluated in the DEIR is a result of the public negotiations on the Contract amendment with the PWAs that resulted in the May 2019 AIP.

The project, as proposed by DWR, includes additions, deletions, and modifications to provisions of the Contracts and clarification of certain terms of the Contracts to provide

greater water management regarding transfers and exchanges of SWP water within the SWP service area. The proposed project also includes amendments that include administrative modifications that would not result in direct or indirect physical changes to the environment. The proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts. The proposed project would also not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements. The DEIR; therefore, as described in Section 5.1 *Method of Analysis*, evaluates potential physical changes that may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs attributed to the proposed Contract amendments.

The environmental analysis in the DEIR is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. It is programmatic because precise location, amount and timing of future water transfers and exchanges are not known at this time. Because the details of future transfers and exchanges that could occur as a result of the proposed project are not known at this time, the potential physical changes (impacts) are discussed to the extent feasible in a level of detail to facilitate meaningful review and informed decision making by DWR. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. Furthermore, proposed transfers are currently, and would continue to be with implementation of the proposed amendments, to be considered on a case-by-case basis subject to DWR approval.

Master Response 4: Range of Alternatives

This Master Response addresses DEIR comments relating to the No Project Alternative, range of alternatives, and the environmentally superior alternative. Comments regarding the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required (see Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR).

No Project Alternative

Comments were received regarding the identification of the No Project Alternative in the DEIR. Comments suggested that DWR incorrectly assumed that the no project alternative would include continued SWP water supply deliveries after the current water supply contracts expire in 2035.

CEQA Guideline Section 15126.6(e)(1) states that the purpose of the no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. Section 15126.6(e)(2) provides that the no project alternative should be the project that would be reasonably expected to occur in the foreseeable future if the proposed project were not approved based on current plans. Furthermore, Section 15126.6(e)(3)(A) states that the no project alternative is usually the continuation of the existing project. When selecting and analyzing the No Project Alternative for Contact Amendments, DWR considered what was reasonably expected to occur if the Contract Amendments were not implemented. The DEIR describes the No Project Alternative on pages ES-6 and 7-6 to 7-9:

> "Under the No Project Alternative (Alternative 1), DWR takes no action, and DWR and the PWAs would continue to operate and finance the SWP under the current Contracts, some of which are set to expire as early as 2035. The PWA's expiration date could be extended beyond the existing terms of the contracts (either by PWAs submitting their Article 4 letters or through the Contract extension process), enabling DWR to finance SWP expenditures beyond 2035 and continue to receive a reliable stream of revenues from PWAs for the construction, operation, and maintenance of the SWP. DWR and the PWAs would transfer and exchange water consistent with the existing water management and existing financial provisions in the Contracts.
>
> Similar to the proposed project, Alternative 1 would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts or the water supply delivered by the SWP, as SWP water supply would continue to be delivered to the PWAs consistent with current Contracts terms, and all regulatory requirements.
>
> Operation of the SWP under this alternative would be subject to ongoing environmental regulations including for water rights, water quality and endangered species protection, among other State and federal laws."

DWR considers this to be the appropriate No Project Alternative for several reasons. As discussed in Chapter 7 *Project Alternatives* on pages 7-6 to 7-7 of the DEIR, DWR and the PWAs would continue to operate and finance the SWP under the existing Contracts, some of which are set to expire as early as 2035. DWR is in the process of extending the Contracts' expiration date to 2085 which will allow DWR to sell bonds with 30-year terms or longer, commensurate with the economic life of the SWP being financed, thus ensuring the debt service on these bonds remains affordable to the PWAs and their water customers.

DWR described the No Project Alternative to continue the Contract beyond 2035 because it is reasonably foreseeable to expect that PWAs will exercise their Article 4 rights before the end of the Contract, based in part on the interest that the PWAs have already expressed in extending their Contracts.

Further support for the selection of the No Project Alternative in the DEIR, SWP water supplies are important to meet existing water demands for all of the PWAs, so it is reasonably foreseeable that this water supply will continue after 2035, requiring the extension of the Contracts. PWAs rely on the SWP to meet their regional water demands. In some service areas, it is further anticipated that alternatives to SWP supply could become less available and more expensive. This again suggests that it is reasonably foreseeable that the Contracts will continue beyond 2035 providing similar levels of water service.

Range of Alternatives

Comments were received regarding the range of alternatives in the DEIR. Some comments suggested that the DEIR must include alternatives that not only accomplish the proposed project objectives, but also include other stated SWP project objectives; that none of the DEIR alternatives appear to avoid or substantially lessen any of the proposed project significant effects; the DEIR's assumption that increased pumping and need for alternative water supplies would cause all other alternatives to be more impactful than the proposed project lack support; and the DEIR's analysis of project alternatives is inadequate as it fails to analyze alternatives that are feasible and will achieve project objectives.

The lead agency has the authority and responsibility to frame the scope of its purpose and objectives for the proposed project. Under CEQA Guideline Section 15124(b), the project description is required to include a statement of objectives sought by the proposed project. The statement of objectives "will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project and may discuss the project benefits."

To satisfy the requirements of CEQA, an EIR must include a reasonable range of alternatives to the project that would meet all or most of the project's objectives. (See CEQA Guidelines Section 15126.6(a)). Accordingly, the project objectives are the starting points for DWR in developing the reasonable range of alternatives to be evaluated in detail in an EIR (CEQA Guidelines Sections 15124(b), and 15126.6(a)).

Section 4.3 *Project Objectives*, describes that DWR and the PWAs have a common interest to ensure the efficient delivery of SWP water supplies and to ensure the SWP's financial integrity. In order to address water management flexibility, DWR and the PWAs agreed to the following objective:

- Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area.

CEQA Guidelines, Section 15126.6(a) states: "There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." The rule of reason "requires the EIR to set forth only those alternatives necessary to permit a reasoned choice" and to "examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project." (CEQA Guidelines Section15126.6(f)). An EIR does not have to consider alternatives "whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (CEQA GuidelinesSection15126.6(f)(3)) nor does an EIR need to consider every conceivable alternative to a project (CEQA Guidelines 15126.6(a)). In addition, the lead agency is free to limit its proposed objectives to the issues it wants to address and is not obligated to look at broader issues or concerns.

In Chapter 7 *Alternatives*, DWR analyzed five different alternatives in addition to the proposed project. These alternatives are: 1. No Project; 2. Reduced Table A Deliveries; 3. Reduced Flexibility in Water Transfers/Exchanges; 4. More Flexibility in Water Transfers/Exchanges; and 5. Only Agriculture to M&I Transfers Allowed.

These alternatives represent a reasonable range of alternatives, and the scope of the analysis of alternatives fully complies with CEQA. DWR carefully considered all potential alternatives that were proposed during the scoping process and while the EIR was being prepared (see Appendix B of the 2018 DEIR for the scoping comments and the letters received).

Draft EIR Chapter 7 *Alternatives*, explains the process used to develop the alternatives, and explains why certain potential alternatives were considered but ultimately eliminated by DWR. Of the 6 alternatives considered in the DEIR, one alternative (Implement New Water Conservation Provisions in the Contracts) to the proposed project was eliminated as it was not found to achieve the basic project objective; five alternatives to the proposed project (including the No Project Alternative) were developed and analyzed in the DEIR for their ability to meet the project objective; and the proposed project received a full analysis in the DEIR. Each alternative to the project was evaluated to see if the alternative would feasibly attain most of the basic project

objective and avoid or substantially lessen significant impacts. Table 7-1 on page 7-5 of the DEIR provides a summary of how each alternative compares to the proposed project.

Pages 7-9 through 7-14 of the DEIR describe Alternative 2, Amending Contract to Reduce Table A Deliveries, including the role of Table A, Article 21 and Article 55 in the SWP water management. Any reduction of Table A Deliveries will result in similar or greater impacts than the proposed project, consistent with the Alternative 2 analysis described in pages 7-9 through 7-14 of the DEIR.

As described in DEIR Chapter 5 *Environmental Analysis*, there are no impacts, or less than significant impacts, associated with the proposed project. The exception is for potentially significant and unavoidable impacts with potential increases in groundwater pumping associated with changes in transfers and exchanges implemented by the PWAs. As described in Chapter 7 *Alternatives*, there are no alternatives with impacts determined to be less severe than the proposed Project. However, while the impacts to groundwater resources for all alternatives are, at minimum, similar to the proposed project, these impacts may be to a lesser magnitude than the proposed project. For example, depending on the sources of water to irrigate lands, PWAs may not need to increase groundwater pumping to supplement their surface water supply resulting in a lesser magnitude of impacts as compared to the proposed project.

DWR considered the suggestions that the proposed project should look at how the SWP may be affected or was affected by other conditions, including the effects of climate change (see Chapter 8 *Climate Change and Resiliency*), and that alternatives should include reduced Table A deliveries and increased water conservation. DWR considered following during the development of alternatives to the proposed project:

- The proposed project reflects a negotiated solution to a problem that provides benefits for the parties to the Contracts (PWAs and DWR). All the parties recognize that supplies from the SWP need to be used efficiently (as identified in the objective). When a proposed project reflects a negotiated solution to a problem that provides benefits for different parties, the CEQA analysis can reject alternatives that do not achieve the objective in its entirety.
- CEQA does not require an agency to examine a project and objectives that are completely different from the one it has chosen to pursue. This is not an EIR on the operation and maintenance of the SWP. The DEIR does not evaluate issues such as impacts attributed to the operation of the SWP, all of the problems facing the Delta, or activities relating to water conservation and water supply. These would continue to exist even if there were no proposed project. As a result, under CEQA, they are considered part of the baseline conditions and are not environmental impacts of the proposed project. Therefore, in the DEIR, DWR is not required to

mitigate or consider alternatives for impacts attributed to the on-going operation and maintenance of the SWP.

- The proposed project would not build or modify existing SWP facilities and would not change each PWA's contractual maximum Table A amounts. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms. DWR has and continues to export SWP water to the PWAs in compliance with all State and federal environmental laws and regulations (see Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance).
- The DEIR does not need to address all issues facing the SWP. DWR leaves resolution of these broader issues to other established planning, legislative and regulatory processes.

Environmentally Superior Alternative

Comments were received regarding the environmentally superior alternative in the DEIR. Comments suggested that the environmentally superior alternative cannot be Alternative 4, as it presents for greater environmental impacts than the proposed project.

As discussed in Chapter 7 *Project Alternatives* on page 7-25 of the DEIR, CEQA requires identification of an environmental superior alternative; that is, the alternative that has the least significant impacts on the environment. Table 7-1 on page 7-5 of the DEIR presents a summary of how each alternative compares to the proposed project with respect to the environmental impacts and the ability to meet project objectives. As presented in Chapter 5, implementation of the proposed project would result in less than significant or no physical environmental impacts to all resource areas except for impacts related to groundwater supplies and subsidence, which are significant and unavoidable.

As discussed in Section 7.4 *Project Alternatives*, Alternative 4 would result in similar impacts as the proposed project (e.g., net deficit in aquifer volume, lowering of the local groundwater table, or subsidence in some areas of the study area). Alternatives 1, 2, 3, and 5 could result in impacts similar or greater (new potentially significant impacts associated with the construction and operation of new water supply facilities that were not identified for the proposed project) than the proposed project. Therefore, because the proposed project and Alternative 4 would result in similar impacts and the other alternatives may result in similar or greater impacts, Alternative 4 was determined to be the environmentally superior alternative in the DEIR.

Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance

Comments were received on the DEIR regarding existing or future plans, projects, or regulatory compliance that are affecting or could affect the proposed project, including

potential effects of carryover storage at Oroville Lake from the Oroville Dam spillway incident; the December 2018 Addendum to the 1986 Coordinated Operation Agreement (COA) Central Valley Project (CVP)/SWP; coordinated long-term operation of the CVP/SWP United State Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) Biological Opinions (BiOps); Sites Reservoir Project; Bureau of Reclamation water transfer agreements, Sacramento Valley Water Management Agreement; State Water Resources Control Board (State Water Board) Bay-Delta Water Quality Control Plan; and policies surrounding reduced reliance on the Delta.

Comments regarding the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required (see Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR). Also, see Master Response 2: Definition of Proposed Project for discussion of relationship of the proposed project with the Contract Extension Project.

See Section 2.3 *SWP Operations*, in the DEIR for a discussion of DWR's SWP operations, including information on Oroville-Thermalito Complex releases; information on the December 2018 Addendum to the 1986 COA; and carryover storage, maximum annual Table A amounts, and annual Table A amounts from 1970-2017. Section 2.3 *SWP Operations*, also includes information on how DWR incorporates PWAs requests into the operations plans to estimate the amount of Table A water available to PWAs based on reservoir storages, hydrologic conditions and forecasts, and environmental requirements. Existing SWP regulatory requirements are covered in the DEIR in Chapter 5 *Environmental Analysis* under each resource topic.

The proposed project does not alter Lake Oroville operations nor its ability to store water. See Section 2.4.3 *Water Management Practices*, in the DEIR for a discussion on DWR's SWP Water Management Practices including how carryover water is stored in San Luis Reservoir. As a practice, carryover water is not stored in Lake Oroville.

As described in Section 2.3 *SWP Operations*, when exporting water from the Delta, DWR must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, and regulations relating to reservoir releases and Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other users. The needs of other users include in-Delta users and the water rights of the areas of origin of Delta inflow. These requirements include applicable State Water Board orders; the COA, as amended; United States Army Corps of Engineers permits; BiOps; and other regulatory constraints including any relevant judicial orders in effect at the time of the operation. They have established water quality and flow requirements and limits on

the rate of export of water that can be pumped by the state and federal pumping plants. Therefore, compliance is included in the proposed project and all of the alternatives analyzed in the DEIR. Approval of the proposed project would not alter the SWP obligation and commitment to comply with all current and future applicable regulatory requirements, including biological opinions and water rights decisions.

Projects included in the Cumulative Analysis

As explained in DEIR Chapter 6 *Other CEQA Considerations,* on pages 6-2 and 6-3, section 15355 of the CEQA Guidelines defines cumulative effects as "two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts." According to CEQA Guidelines Section 15130(b), the cumulative impacts discussion shall reflect "the severity of the impacts and their likelihood of occurrence" and shall "be guided by the standards of practicality and reasonableness." The CEQA Guidelines further indicate that the discussion of cumulative impacts should include a discussion of the geographic scope of the affected area by the cumulative effect, and a summary of expected environmental effects to be produced by the list of past, present, and probable future projects producing related cumulative impacts.

As discussed on page 6-3 of the DEIR, in light of the fact that the proposed project would add, delete and modify provisions of the Contracts, the discussion of cumulative impacts took into consideration past, present, and probable future projects that would or did result in changes to Contract provisions. Additional criteria used to identify projects for consideration included: (1) whether the project is under active consideration; (2) whether the project would be operational or contemplated within the timeframe of the proposed project; and (3) whether the project in combination with the proposed project would have the potential to affect the same resources. If a project met all of these criteria, then it was considered reasonably foreseeable and was selected for inclusion in the cumulative impact analysis. Projects that were already past the consideration process and met criteria 2 and 3 were also included in the cumulative impact analysis. Based on these criteria the DEIR identified three projects (the Contract Extension Project, the Monterey Amendment and Settlement Agreement, and the Sustainable Groundwater Management Act Implementation) that would or did meet all of these criteria. Existing projects such as the Bureau of Reclamation's single year water transfers and the Yuba Accord are captured within the existing conditions covered in the DEIR in Chapter 5 *Environmental Analysis,* under each resource topic.

Therefore, because the proposed project does not alter baseline operations and maintenance and do not authorize future construction projects, no other projects,

including, but not limited to, the Sites Reservoir Project, Bureau of Reclamation's future water transfers, future projects associated with Sacramento Valley Water Management Agreement, were identified for the cumulative impact analysis. Other projects mentioned in comment letters received do not meet the criteria used to identify and analyze cumulative impacts.

Reduced Reliance on the Delta

In the Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act), created by Senate Bill (SB) 1X7, the Legislature declared that the Delta "serves Californians concurrently as both the hub of the California water system and the most valuable estuary and wetland ecosystem on the west coast of North and South America."[2] "The economies of major regions of the state depend on the ability to use water within the Delta watershed or to import water from the Delta watershed. More than two-thirds of the residents of the state and more than two million acres of highly productive farmland receive water exported from the Delta watershed."[3] Yet "existing Delta policies are not sustainable."[4] Accordingly, included within the Delta Reform Act are mandates to various state agencies aimed at achieving the sustainable management of the Delta.

The Delta Reform Act also established the coequal goals for the Delta of "providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem."[5] These coequal goals must be achieved "in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place."[6]

In light of the environmental challenges facing the Delta and the vital importance of water conveyed through and diverted from the Delta to the state's economy, the Legislature stated that its intentions in enacting the Delta Reform Act are:

> to provide for the sustainable management of the Sacramento-San Joaquin Delta ecosystem, to provide for a more reliable water supply for the state, to protect and enhance the quality of water supply from the Delta, and to establish a governance structure that will direct efforts across state agencies to develop a legally enforceable Delta Plan.[7]

2 Wat. Code, § 85002.

3 Wat. Code, § 85002.

4 Wat. Code, § 85001.

5 Pub. Resources Code, § 29702; Wat. Code, § 85054.

6 Wat. Code, § 85054.

7 Wat. Code, § 85001, subd. (c).

The proposed project includes water supply management practices to enhance flexibility and reliability of SWP water supplies to PWAs, in support of the achievement of the coequal goals. The proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts. The proposed project would not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements.

As indicated in Chapter 2 and Chapter 4 of the DEIR, and Master Response 2: Definition of the Proposed Project, most water transfers that may occur due to the proposed amendments would occur among PWAs located south of the Delta and would not involve additional export of SWP water from the Delta. Transfers or exchanges between PWAs south of the Delta do not affect SWP operations at the export facilities. The SWP would export the same volume of water, only its delivery location would change by going to a different PWA. For any north of Delta to south of Delta transfers or exchanges, the likely preferred source of water would be SWP supplies already exported through existing SWP operations and stored in San Luis Reservoir. As part of existing operations of the SWP, project water is moved through the Delta in compliance with regulatory, environmental, and operational criteria, and when possible, stored in San Luis Reservoir for later delivery to the contracting PWAs. North of Delta to south of Delta transfers or exchanges beyond that water stored in San Luis Reservoir would potentially result in a slight increase in exports but would be within existing operations of the SWP.

Water supply management practices available to PWAs under the proposed project include transfers and exchanges of SWP water supplies among the PWAs to provide flexibility (e.g., changing the location and timing of delivery), especially during dry years. In addition to transfers and exchanges, the Contracts provide flexibility in the management of water supplies by allowing some PWAs to store water in San Luis Reservoir, withdraw and replace water from Castaic Lake and Lake Perris, and to use capacity within the SWP system for the conveyance of non-SWP water for transfers to all PWAs. Other water supply management practices provided for in the Contracts allow PWAs to store allocated water from one year to the next under certain conditions.

The Delta Reform Act also includes a state policy to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency:

> The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and

> water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts.[8]

Under Water Code Section 85021, it is the obligation of each region that relies on water from the Delta watershed to determine the best ways to meet this goal by improving regional self-reliance. DWR encourages and incentivizes water conservation and improved water management through grant funding and by providing technical assistance. DWR is also involved in several statewide water conservation and water management programs including urban and agricultural water management plans, the water conservation provisions of SBx7-7, SB 555 (2015), 2018 water conservation legislation SB 606, and AB 1668. DWR supports and encourages water use efficiency by utilizing conservation tools and understands it can provide more flexibility for water users, better management of water resources, and satisfy current and future demand under existing export levels.

2.3 RESPONSES TO COMMENTS

This section presents the comment letters received (see Table 2-1) and responses to the comments contained in each letter. The responses to comments are numbered consistent with the comment number for each letter and the order of the comment. For example, the response to the first comment in Comment Letter 1 is Response to Comment 1-1.

8 Wat. Code, § 85021.

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Response to Comment 1-1

The DEIR provides a clear, accurate, and stable project description to determine the project's environmentally significant effects, associated mitigation, and alternatives to the proposed project. Chapter 4 *Project* Description of the DEIR describes the proposed amendments and explains that the proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts. Section 5.1 *Method of* Analysis of the DEIR describes the methods of analysis and the technical resource sections in Chapter 5 describe the potential changes that could occur as a result of implementing the proposed project. See Master Response 2: Definition of the Proposed Project for further discussion.

2018 DEIR Appendix B *Notice of Preparation (NOP) and Comments Letters Received* contains comments submitted in response to the NOP for the 2018 DEIR. These comments were taken into consideration during the development of the 2018 DEIR and 2020 Partially Recirculated DEIR.

Response to Comment 1-2

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

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Response to Comment 2-1

The comment provides a summary and background of Plumas' involvement in the CEQA processes for the Contract Extension and California WaterFix projects and the June 2018 AIP process and states the intent to sign the June 2018 AIP. As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because approval of the California WaterFix was set aside, on May 20, 2019 DWR and the SWP PWAs held a public meeting to negotiate an amendment to the June 2018 AIP that proposed removal of the provisions of the Contracts that addressed an equitable approach for cost allocation of California WaterFix. Based on the May 20, 2019 negotiation, cost allocation is no longer part of the AIP; however, the amendments to the Contract proposed in the June 2018 AIP related to water management remain unchanged and are evaluated in 2020 Partially Recirculated DEIR.

Response to Comment 2-2

See Master Response 2: Definition of Proposed Project, on December 11, 2018, DWR filed a Notice of Determination (NOD) certifying the adequacy of the Water Supply Contract Extension Project EIR and approved the proposed Contract Extension Project extending the Contracts' expiration date to 2085 would enable DWR to finance SWP expenditures beyond 2035 and continue to receive a reliable stream of revenues from PWAs for the construction, operation, and maintenance of the SWP. The proposed project is separate and independent from the Contract Extension Project.

As also described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR; because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 2-3

See Response to Comment 2-2 and Master Response 2: Definition of Proposed Project. The proposed project is separate and independent from the Contract Extension Project.

Response to Comment 2-4

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the 2018 Contract Amendment Project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 2-5

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 2-6

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. See also Master Response 2: Definition of Proposed Project and Response to Comment 2-2 for discussion of relationship with the Contract Extension Project.

Response to Comment 2-7

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 2-8

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 2-9

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. See also Master Response 2: Definition of Proposed Project and Response to Comment 2-2 for discussion of relationship with the Contract Extension Project.

Response to Comment 2-10

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed

project and California WaterFix are no longer relevant. See also Master Response 2: Definition of Proposed Project and Response to Comment 2-2 for discussion of relationship with the Contract Extension Project.

Chapter 8 *Climate Change and Resiliency* of the DEIR was updated (see 2020 Partially Recirculated DEIR) to include additional information available since publication of the 2018 DEIR.

Response to Comment 2-11

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. See also Master Response 2: Definition of Proposed Project and Response to Comment 2-2 for discussion of relationship with the Contract Extension Project.

As also described in Master Response 2, the DEIR is not an EIR on the operations of the SWP. As described in Chapter 4 *Project Description*, the proposed project would add, delete, and modify provisions of the Contracts and clarify certain terms of the Contracts that will provide greater water management regarding transfers and exchanges of SWP water within the SWP service area. The proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts. The proposed project would not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements. Therefore, DWR is not changing its operations under the Contracts; DWR pumps water from the Delta in compliance with all State and federal environmental laws and regulations and pursuant to its water right permits (see Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR.

Response to Comment 2-12

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. See also Master Response 2: Definition of Proposed Project and Response to Comment 2-2 for discussion of relationship with the Contract Extension Project.

Response to Comment 2-13

See Master Response 2: Definition of the Proposed Project and Response to Comment 2-11. The 2018 DEIR is not an EIR on the operations of the SWP. DWR is not changing its operations under the Contracts, including operations of Oroville Reservoir; DWR pumps water from the Delta in compliance with all State and federal environmental laws and regulations and pursuant to its water right permits (see Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR.

See also Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance.

Response to Comment 2-14

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. See also Master Response 2: Definition of Proposed Project and Response to Comment 2-2 for discussion of relationship with the Contract Extension Project.

Response to Comment 2-15

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the propose project and California WaterFix are no longer relevant. See also Master Response 2: Definition of Proposed Project and Response to Comment 2-2 for discussion of relationship with the Contract Extension Project.

Response to Comment 2-16

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. See also Master Response 2: Definition of Proposed Project and Response to Comment 2-2 for discussion of relationship with the Contract Extension Project.

Response to Comment 2-17

The comment is thanking DWR; no further response is required.

Response to Comment 3-1

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA.

Response to Comment 3-2

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

Response to Comment 3-3

See responses to Letter 2.

Response to Comment 3-4

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

Response to Comment 3-5

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA.

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Response to Comment 4-1

The comment provides background for the comments provided in Letter 4. It does not address the adequacy or content of the DEIR; no further response is required.

Response to Comment 4-2

See Master Response 3: Program versus Project Level Analysis. The DEIR is not defined as a project or program EIR. Defining the "project" for purposes of CEQA analysis does not in and of itself imply that the analysis is required to be at a "project-level". The DEIR does, as described in Section 5 *Method of Analysis*, evaluate potential physical changes that may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once proposals for specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. DWR believes this approach to the analysis is appropriate under CEQA. As it relates to impacts to water supplies within NDWA's jurisdiction, the impacts would be evaluated in the appropriate CEQA document when specific details from proposed transfers and exchanges that occur as a result of the proposed amendment are submitted.

See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project. See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA.

Response to Comment 4-3

As described in the DEIR in Chapter 4 *Project Description*, the proposed project would not change the water supply delivered by the SWP. SWP water would continue to be delivered to the PWAs consistent with current Contract terms and regulatory requirements. As described in Response to Comment 4-2, changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs could occur. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR focuses on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed project. Once proposals for specific transfers and exchanges among the PWAs are proposed as a result of the proposed

amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

See Master Response 2: Definition of the Proposed Project for more discussion of the definition of the proposed project. See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA.

Response to Comment 5-1

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

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Response to Comment 6-1

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA to the proposed project.

See also Responses to Comments 6-2 through 6-7.

Response to Comment 6-2

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

As described in Chapter 4 *Project Description* of the DEIR and in Master Response 2, the proposed project would not change the water supply delivered by the SWP. SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements. The DEIR does, as described in Section 5 *Method of Analysis*, evaluate potential physical changes that may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

Response to Comment 6-3

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA and other projects to the proposed project.

Response to Comment 6-4

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 6-5

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA and other projects to the proposed project.

Response to Comment 6-6

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA and other projects to the proposed project.

Response to Comment 6-7

See Master Response 3: Program versus Project Level Analysis. The 2018 DEIR is not defined as a project or program EIR. Defining the “project” for purposes of CEQA analysis does not in and of itself imply that the analysis is required to be at a “project-level”. The DEIR does, as described in Section 5.1 *Method of Analysis*, evaluate potential physical changes that may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once proposals for specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. See

Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project.

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Response to Comment 7-1

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

Response to Comment 7-2

The proposed project does not include any change to existing water rights. As described in Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws and regulations. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project.

Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, to be considered on a case-by-case basis subject to DWR approval. As described in Section 5.1 *Method of Analysis* of the DEIR, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment. Chapter 5 *Environmental Analysis* of the DEIR includes an analysis of the potential for additional water transfers to occur with implementation of the proposed project. Cumulative impacts are addressed in Chapter 6 *Other CEQA Considerations* (subsection 6.1 *Cumulative Impacts*.

See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project. See Master Response 3: Program versus Project Level Analysis.

Response to Comment 7-3

The comment confuses the AIP with a completed contract amendment. The state contracting manual does not apply to the AIP; and therefore, the comment that not complaining with the manual are not applicable and unrelated to the adequacy of the DEIR are not applicable. The remainder of this comment does not address the adequacy or content of the DEIR and no further response is required.

Response to Comment 7-4

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. See also Master Response 2: Definition of Proposed Project for further discussion of the definition of the proposed project.

Response to Comment 7-5

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. Notwithstanding, however, the following is provided for informational purposes.

As described in Section 5.1 *Method of Analysis* on page 5.1-5, the DEIR evaluates potential physical changes that may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR focuses on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 7-6

See Master Response 3: Program versus Project Level Analysis. Also see Response to Comment 7-5.

Response to Comment 7-7

For a discussion of the project under consideration in the 2018 DEIR, see Master Response 2: Definition of the Proposed Project. As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project

would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP.

Response to Comment 7-8

The proposed project does not include any change to existing water rights, including Area of Origin rights. For a discussion of the project under consideration in the DEIR, see Master Response 2: Definition of the Proposed Project. As described in Master Response 2 and in Chapter 4 *Project Description* of the DEIR, the proposed project would not change any of the PWA's Annual Table A amounts. The proposed project would also not change the water supply delivered by the SWP. SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements. Therefore, DWR is not changing its operations under the Contracts; DWR pumps water from the Delta in compliance with all State and federal environmental laws and regulations and pursuant to its water right permits (see Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*). Furthermore, the proposed transfers and exchanges between PWAs have been and would continue to be subject to DWR's approval.

As disclosed in Chapter 8, *Climate Change and Resiliency*, operation of the SWP could be affected by features of climate change that include changes in temperature, precipitation, humidity and hydrology. However, given the size of the watersheds in the study area and the ability to convey water within the SWP, even a substantial increase or decrease in precipitation will likely be able to be handled through SWP operations. PWAs will be able to better manage the potential effects of climate change because the proposed project facilitates additional flexibility in transferring/exchanging Table A and Article 21 water to other PWAs depending on the water year and availably of water.

Response to Comment 7-9

Growth inducing effects of implementation of the proposed project are evaluated in Chapter 6 *Other CEQA Considerations* (Section 6.4 *Growth-Inducing Impact*) of the DEIR. As described in Section 6.4, the proposed transfer and exchange provisions would provide the PWAs with increased flexibility for short-term and long-term planning of their SWP water supplies. More frequent transfer and exchange of Table A and Article 21 water would increase the reliability of SWP supplies for M&I PWAs that could support additional population in jurisdictions within the M&I PWA service areas. However, while with the proposed amendments transfers and exchanges could be more frequent and longer in duration, they would not be a permanent transfer of a PWAs Annual Table A amounts; therefore, absent other factors it would not represent a viable long-term source of urban water supply to support additional growth. Therefore, the

proposed amendments would not result in additional water supply that could support growth over what is currently planned for in those jurisdictions and the proposed project would not result in indirect growth inducement. Approval or denial of development proposals is the responsibility of the cities and counties in the study area and not DWR. Cities and counties are also responsible for considering the environmental effects of their growth and land use planning decisions (including, but not limited to, conversion of agricultural land to urban uses, loss of sensitive habitats, and increases in criteria air emissions). As new developments are proposed, or general plans adopted, local jurisdictions prepare environmental compliance documents to analyze the impacts associated with development in their jurisdiction pursuant to CEQA. The impacts of growth would be analyzed in detail in general plan EIRs and in project-level CEQA compliance documents. Mitigation measures for identified significant impacts would be the responsibility of the local jurisdictions in which the growth would occur. If identified impacts could not be mitigated to a level below the established thresholds, then the local jurisdiction would need to adopt overriding considerations.

Response to Comment 7-10

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 7-11

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. See also Master Response 2: Definition of the Proposed Project

See Response to Comment 7-9 for discussion of growth inducing impacts.

Response to Comment 7-12

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. See also Master Response 2: Definition of the Proposed Project.

Response to Comment 7-13

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. See also Master Response 2: Definition of the Proposed Project.

See Response to Comment 7-8 for a discussion of the DEIR's analysis of climate change and resiliency. It does not rely on the modeling or analysis provided for California WaterFix. See also Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant.

Response to Comment 7-14

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. As referenced in Chapter 4 Project Description of the DEIR, proposed transfers and exchanges are currently, and would continue to be with implementation of the proposed amendments, considered on a case by case basis subject to DWR approval. The AIP sets forth comprehensive criteria on the approval of transfers, which includes discretion retained by the Director of DWR to deny transfers that are contrary to State policy or law. See also Master Response 2: Definition of the Proposed Project.

Response to Comment 7-15

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval.

See also Master Response 2: Definition of the Proposed Project. For further discussion about Public Trust see Response to Comment 7-48.

Response to Comment 7-16

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. See also Master Response 2: Definition of the Proposed Project. DWR notes that a PWA can store SWP and non-SWP water in "project surface conservation facilities" but limits the amount of SWP water that can be added to storage each year in such facilities. The most likely location of available SWP storage capacity is San Luis Reservoir, but as DWR begins to fill the storage space for SWP purposes the stored water stored for contractors reverts to SWP supply. PWAs can also take delivery of such stored water so that it is not lost to project purposes should the reservoir begin to fill.

There are no fees to store SWP water in project surface conservation facilities beyond those already billed to the PWAs for the operation and conveyance of the water supply. Additionally, since the water is SWP water, water supply losses are already accounted for in the operation of the SWP.

Response to Comment 7-17

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. See also Response to Comment 7-16 and Master Response 2: Definition of the Proposed Project.

Response to Comment 7-18

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. See also Master Response 2: Definition of the Proposed Project for further discussion of the project under consideration in the DEIR.

See also Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project

under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant.

Response to Comment 7-19

For a discussion of the project under consideration in the DEIR, see Master Response 2: Definition of the Proposed Project.

As described in Master Response 3: Program versus Project Level Analysis and in Section 5.1 *Method of Analysis* of the DEIR, and in the technical resource sections of Chapter 5 *Environmental Analysis*, portions of the proposed amendments (amendments related to water transfers and water exchanges) may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs that could result in changes to the physical environment. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR (both project and cumulative) is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

Response to Comment 7-20

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. For a discussion of the project under consideration in the DEIR, see Master Response 2: Definition of the Proposed Project.

Response to Comment 7-21

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. The AIP sets forth comprehensive criteria on the approval of transfers, which includes discretion retained by the Director of DWR to deny transfers that are contrary to State policy or law. Explicitly defining health and safety levels of water supply is properly the purview of each PWA and not the subject of the proposed amendment. No further response is required.

Response to Comment 7-22

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. As described in Chapter 4 *Project Description* of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species

protection, and other State and federal laws and regulations. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements, including water quality requirements.

Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval. As described in Section 5.1 *Method of Analysis*, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment. See also Master Response 2: Definition of the Proposed Project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 7-23

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. The public negotiation process for development of the AIP is presented in Chapter 1 *Introduction* of the DEIR. The public process for development of the DEIR is also presented in Chapter 1 *Introduction* of this FEIR. See also Master Response 2: Definition of the Proposed Project for additional information on the development of the AIP. The public negotiation process and documents are available to the public and agencies upon request to DWR.

Furthermore, as described in Section 5.1 *Method of Analysis* of the DEIR, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess and publicly disclose any physical changes to the environment. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 7-24

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. As described in Chapter 4 *Project Description*, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws and regulations. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements.

Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval. As described in Section 5.1 *Method of Analysis* of the DEIR, once specific transfers and

exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment, including impacts to the physical environmental that could be incurred by PWAs and other water agencies. See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

For discussion of Public Trust and the responsibilities of DWR see Response to Comment 7-48.

Response to Comment 7-25

The DEIR, as described in Section 5.1 *Method of Analysis*, evaluates potential physical changes that may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR focuses on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation, regardless of whether it is an exception to the June 2018 (or May 2019) AIP or not. See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project.

Response to Comment 7-26

See Response to Comment 7-24.

Response to Comment 7-27

See Response to Comment 7-23. For discussion of Public Trust and the responsibilities of DWR see Response to Comment 7-48.

Response to Comment 7-28

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. The DEIR, as described in Section 5.1 *Method of Analysis*, evaluates potential physical changes that may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR focuses on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific

transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 7-29

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. The roles and responsibilities for the lead agency and responsible agencies are described in both Chapter 1 *Introduction* and Chapter 4 *Project Description* of the DEIR. As described in Chapter 1, DWR is the lead agency for the preparation of the EIR. The PWAs are responsible agencies who may use the EIR to meet their CEQA requirements in their discretionary approval process for approving the proposed amendments.

Please also see Responses to Comments 7-24 and 7-48.

Response to Comment 7-30

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. See also Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project.

As also described in Chapter 4 *Project Description*, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws and regulations. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements.

The resource sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of the potential increase in transfers and exchanges that could occur as a result of the proposed amendments, including potential effects to groundwater resources (see Section 5.10). The analysis in the DEIR does not evaluate any financial implications of increased transfers and exchanges. As described in Section 5.1 *Method of Analysis*, CEQA and the CEQA Guidelines do not require an economic analysis, and do not recognize financial changes as physical changes to the environment requiring an impact analysis. However, economic and social effects may be used to determine if there are physical changes to the environment (CEQA Guidelines Section 15131). As

such, the DEIR does evaluate the potential physical change in the environment resulting from the proposed contract amendments.

Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval. As described in Section 5.1, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment, including impacts to the physical environmental that could be incurred by PWAs and other water agencies. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 7-31

As described in Response to Comment 7-30, the analysis in the DEIR does not evaluate any financial implications of increased transfers and exchanges. CEQA and the CEQA Guidelines do not require a financial analysis, and do not recognize financial changes as physical changes to the environment requiring an impact analysis. However, economic and social effects may be used to determine if there are physical changes to the environment (CEQA Guidelines Section 15131). As such, the DEIR evaluates potential physical changes to the environment resulting from economic and social effects that could be caused by the proposed project

Response to Comment 7-32

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. See Response to Comment 7-23 for a discussion of the AIP public negotiation process and Master Response 2: Definition of the Proposed Project.

The CEQA process is described in Chapter 1 *Introduction* of the DEIR. In accordance with Section 15082 of the CEQA Guidelines, DWR prepared a NOP and published it on July 13, 2018 for the required 30-day comment period. DWR provided the NOP to: (1) local, State, and federal agencies; (2) local libraries; (3) city and county clerk offices; and (4) other interested parties (the list is included in Appendix B of the 2018 DEIR). One public scoping meeting was held in Sacramento on August 2, 2018. The 2018 DEIR was provided to those who received the NOP and two public meetings were held during the 75-day public review period (November 16, 2018 through January 9, 2019).

The public negotiation process and documents and CEQA documents completed to date, along with a description of the next steps in the process, are available to the public and agencies upon request to DWR.

The roles and responsibilities for the lead agency and responsible agencies are described in both Chapter 1 *Introduction* and Chapter 4 *Project Description* of the DEIR. As described in Chapter 1, DWR is the lead agency for the preparation of the EIR. The PWAs are responsible agencies who may use the EIR to meet their CEQA requirements in their discretionary approval process for approving the proposed amendments. As further described in Section 5.1, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess and publicly disclose any physical changes to the environment.

See also Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR. As described in Master Response 1, because approval of the California WaterFix was set aside, on May 20, 2019 DWR and the SWP PWAs held a public meeting to negotiate an amendment to the June 2018 AIP that proposed removal of the provisions of the Contracts that would address an equitable approach for cost allocation of California WaterFix. Based on the May 20, 2019 negotiation, cost allocation is no longer part of the AIP (May 2019 AIP); however, the Contract amendments proposed in the June 2018 AIP related to water management remain unchanged and are evaluated in the 2020 Partially Recirculated DEIR.

Response to Comment 7-33

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. See also Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project.

As also described in Chapter 4 *Project Description*, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws and regulations. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements.

Response to Comment 7-34

See Responses to Comments 7-23 and 7-32 for discussion of the AIP negotiation and CEQA processes. As described in Section 5.1 *Method of Analysis* of the DEIR, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply

with the appropriate project-level CEQA documentation that would assess and publicly disclose any physical changes to the environment.

Response to Comment 7-35

See Responses to Comments 7-23 and 7-32 for discussion of the AIP negotiation and CEQA processes. As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval.

The resource sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of the potential increase in transfers and exchanges that could occur as a result of the proposed amendments, including potential effects to groundwater resources (see Section 5.10). The analysis in the DEIR does not evaluate any financial implications of increased transfers and exchanges. As described Section 5.1 *Method of Analysis*, CEQA and the CEQA Guidelines do not require a financial analysis, and do not recognize financial changes as physical changes to the environment requiring an impact analysis. But, economic and social changes can be used to determine if there are physical changes to the environment (CEQA Guidelines Section 15131). As such, the 2018 DEIR does evaluate the potential physical change in the environment resulting from the proposed contract amendments for each resource topic

Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval. As described in Section 5.1, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment, including impacts to the physical environmental that could be incurred by PWAs and other water agencies.

For further discussion of the project under consideration in the DEIR, see Master Response 2: Definition of the Proposed Project further discussion of the definition of the proposed project.

Response to Comment 7-36

See Response to Comment 7-35.

Response to Comment 7-37

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. As described in Chapter 4 *Project Description* of the DEIR, proposed transfer and exchange provisions would provide the PWAs with increased flexibility for short-term and long-term planning of their SWP water supplies.

Response to Comment 7-38

The comment does not address the adequacy or content of the 2018 DEIR. Notwithstanding; however, please see Response to Comment 7-15.

See also Master Response 2: Definition of the Proposed Project further discussion of the definition of the proposed project. For further discussion of Public Trust and the responsibilities of DWR see Response to Comment 7-48.

Response to Comment 7-39

CEQA does not require analysis of the California Contracting Manual because is not a physical environmental impact. DWR complies with all applicable regulations when conducting its business.

Response to Comment 7-40

The comment did not identify any provision of the existing water supply contract or the proposed project that supports the assertion that carryover water may be stored in, or transferred from, Oroville Reservoir. Therefore, the resource sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of the potential increase in transfers and exchanges that could occur as a result of the proposed amendments.

In addition, as described in Section 5.1, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment, including impacts to the physical environmental that could be incurred by PWAs and other water agencies.

Response to Comment 7-41

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant.

Response to Comment 7-43

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. See Response to Comment 7-11 for discussion of growth-inducing impacts of the proposed project. As discussed in Response to Comment 7-11, while with the proposed amendments transfers and exchanges could be more frequent and longer in duration, they would not be a permanent transfer of a PWAs Annual Table A amounts. Therefore, it would not represent a viable long-term source of urban water supply to support additional unplanned growth. See also Response to Comment 7-8 for a discussion of the DEIR's analysis of climate change and resiliency.

Response to Comment 7-44

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant.

In addition, as described in Chapter 4 *Project Description* of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws and regulations. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements.

Response to Comment 7-45

As described in Section 5.1 *Method of Analysis* of the DEIR, because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR (both project and cumulative) is programmatic,

focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. The resource sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of the potential for additional water transfers to occur with implementation of the proposed project. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of the Proposed Project further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

As also described in Chapter 4, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws and regulations. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements.

Response to Comment 7-46

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant.

Response to Comment 7-47

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. See Responses to Comment 7-23 and 7-32 for discussion of public negotiation and CEQA process.

Response to Comment 7-48

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. The proposed project meets several of the key objectives noted in the Department's Mission Statement. It seeks to create a more sustainable SWP that allows more flexibility to PWAs (other agencies) in managing their SWP water supplies and creating a more resilient water portfolio. The SWP supplies water to more than 27 million people across many of California's regions and irrigates over 750,000 acres of farmland. By creating a more flexible approach to managing the water to this large portion of California's population and rich agricultural land, the proposed project greatly benefits the state's people through a more resilient water portfolio.

State agencies, such as DWR, have an “affirmative duty” to protect public trust uses whenever feasible. The obligation extends to protection of the “traditional triad” of public trust uses (navigation, commerce, and fishing), plus the protection of recreational and ecological values. DWR analyzed impacts on these public trust uses in the environmental resource sections included in Chapter 5 *Environmental Analysis* of the DEIR. As concluded in the DEIR, the proposed project would not have any potentially significant environmental effects with respect to: • Aesthetics • Agriculture and Forestry Resources • Air Quality • Biological Resources (terrestrial and aquatic biological resources) • Cultural Resources • Energy • Geology, Soils, and Mineral Resources •Greenhouse Gas Emissions • Groundwater Hydrology and Water Quality • Hazards and Hazardous Materials •Land Use and Planning • Noise • Population and Housing • Public Services and Recreation• • Surface Water Hydrology and Water Quality •Tribal Cultural Resources •Transportation • Utilities and Service Systems • Water Supply. As stated above, the EIR concludes that the project would not have any significant environmental impacts on these resource categories other than potential groundwater impacts. Thus, the project would not have significant impacts on navigation, commerce, fishing, or recreational and ecological values.

Response to Comment 7-49

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. The proposed project does not include any change to existing water rights, including Area of Origin rights. As described in Chapter 4 Project Description of the DEIR, operation of the SWP is subject State and federal laws and regulations, including the California Water Code. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. For a discussion of the project under consideration in this DEIR, see Master Response 2: Definition of the Proposed Project.

Response to Comment 7-50

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. Notwithstanding, however, the following is provided for informational purposes. See Responses to Comments 7-21 and 7-49. For a discussion of the project under consideration in this DEIR, see Master Response 2: Definition of the Proposed Project.

Response to Comment 7-51

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. The proposed project does not include any change to existing water rights, including Area of Origin rights. As described in Chapter 4 *Project Description* of the DEIR, operation of the SWP is subject State and federal laws and regulations, including the California Water Code. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval. For a discussion of the project under consideration in this DEIR, see Master Response 2: Definition of the Proposed Project.

Response to Comment 7-52

See Responses to Comments 7-21, 7-49, and 7-50. For a discussion of the project under consideration in this DEIR, see Master Response 2: Definition of the Proposed Project.

Cumulative impacts are addressed in Chapter 6 *Other CEQA Considerations* (Section 6.1 *Cumulative Impacts*) of the DEIR. Section 6.1 provides a discussion of CEQA analysis requirements for assessment of cumulative impacts and explains the cumulative impacts assessment developed from the analysis of proposed project impacts provided in the technical sections of Chapter 5 *Environmental Analysis*, including groundwater and surface water hydrology and water quality.

Response to Comment 7-53

For a discussion of the project under consideration in this DEIR, see Master Response 2: Definition of the Proposed Project. As described in Chapter 4 *Project Description* of the DEIR, operation of the SWP is subject State and federal laws and regulations, including the California Water Code. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. For information on the Bulletin 132 series, See Chapter 2 *State Water Project*, including subsection 2.4.3 *Water Management Practices*, and subsection 2.4.4 *Water Transfers and Exchanges*.

For information on federal, State, and local laws and regulations (including groundwater management plans) pertinent to groundwater resources, see Chapter 5 *Environmental Analysis*, Section 5.10 *Groundwater Hydrology and Water Quality* (subsection 5.10.3 *Regulatory Setting*). Section 5.10.4 describes the methods of analysis, standard of

significance, and impacts and mitigation measures for groundwater resources. See Section 5.10.4.4 for the evaluation of potential impacts associated with an increase in groundwater pumping associated with changes in transfers and exchanges implemented by the PWAs as a result of the proposed project.

Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval. As described in Section 5.1 *Method of Analysis* of the DEIR, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation. PWAs will need to comply with the appropriate local, State and federal laws and regulations, including the National Environmental Policy Act (NEPA), if applicable.

Transfers and exchanges of the proposed project are not changes to the water rights of the SWP; therefore, provisions of the California Water Code cited by the commenter do not apply, including the requirements that each transfer or exchange go before the State Water Resources Control Board to demonstrate no injury to legal users of water.

The proposed project does not increase the volume of SWP water supplies, add additional facilities, nor increase the SWP service area. It creates more flexibility in managing SWP water supplies for the PWAs using existing SWP facilities within existing SWP operations.

Response to Comment 7-54

As described in Chapter 4 *Project Description* of the DEIR, operation of the SWP is subject State and federal laws and regulations, including the California Water Code. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval. For a discussion of the project under consideration in this DEIR, see Master Response 2: Definition of the Proposed Project. See Section 5.10 *Groundwater Hydrology and Water Quality* for the evaluation of potential impacts associated with an increase in groundwater pumping associated with changes in transfers and exchanges implemented by the PWAs as a result of the proposed project.

See Section 5.3 *Agricultural and Forestry Resources* for the evaluation of potential agricultural impacts associated with changes in transfers and exchanges implemented by the PWAs as a result of the proposed project.

Response to Comment 7-55

As described Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

For information on reduced reliance see Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance. Please also see Response to Comment 18-1.

Response to Comment 7-56

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. The Warren Act (Act as of February, 21, 1911, CH. 141, (36 STAT. 925)) authorizes the United States Bureau of Reclamation (Reclamation) to negotiate agreements to store or convey non-CVP water when excess capacity is available in federal facilities. As described in Chapter 4 *Project Description* of the DEIR, operation of the SWP is subject State and federal laws and regulations, including the California Water Code. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. For a discussion of the project under consideration in this DEIR, see Master Response 2: Definition of the Proposed Project.

Response to Comment 7-57

Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval. As described in Chapter 4 Project Description of the DEIR, operation of the SWP is subject State and federal laws and regulations, including the California Water Code. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. As described in Section 5.*1 Method of Analysis* of the DEIR, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation. Specific transfers (and exchanges) will need to comply with the appropriate local, State and federal laws and regulations, including NEPA, Endangered Species Act, Clean Water Act, etc., if applicable. See also Master Response 2: Definition of the Proposed Project and Master Response 3: Program versus Project Level Analysis. See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA to the proposed project.

Response to Comment 7-58

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. As described in Chapter 4 *Project Description* of the DEIR, operation of the SWP is subject State and federal laws and regulations, including the California Water Code. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. See also Master Response 2: Definition of the Proposed Project and Master Response 3: Program versus Project Level Analysis. See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA to the proposed project.

Response to Comment 7-59

As described in Chapter 4 *Project Description* of the DEIR, the stated objective for the proposed project is to supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area. The proposed project would not change the water supply delivered by the SWP and SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements, including water quality requirements. For a discussion of the project under consideration in this DEIR, see Master Response 2: Definition of the Proposed Project.

See also Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant.

Draft EIR Chapter 7 *Alternatives*, explains the process used to develop the alternatives. See also Master Response 4: Range of Alternatives for discussion of how the alternatives evaluated in the DEIR represent a reasonable range of alternatives.

Response to Comment 7-60

As described in the resource sections of Chapter 5 *Environmental Analysis* of the DEIR, the thresholds of significance used to evaluate the level of significance are based on Appendix G of the CEQA Guidelines. This is consistent with other CEQA documents prepared by DWR, and DWR as Lead Agency, has determined them appropriate for preparing this DEIR.

Response to Comment 7-61

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant.

Response to Comment 7-62

For a discussion of the project under consideration in this DEIR, Master Response 2: Definition of the Proposed Project. As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP.

With respect to the OCAP Biological Opinions and operation of the SWP and delivery of water to the PWAs, as described in Chapter 4 *Project Description* of the DEIR, operation of the SWP is subject State and federal laws and regulations, including the California Water Code. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. See also Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of OCAP Biological Opinions to the proposed project.

Response to Comment 7-63

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. Notwithstanding, however, the following is provided for informational purposes. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project. For responses to comments on the Contract Extension Project, see the DWR website for information on how to obtain the FEIR: https://water.ca.gov/Programs/State-Water-Project/Management/Water-Supply-Contract-Extension

Response to Comment 7-64

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. Notwithstanding, however, the

following is provided for informational purposes. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project. The Contract Extension Project EIR and the proposed project EIR are consistent in terms baseline assumptions, geographic scope, method of analysis and impact assessment, to the extent relevant and appropriate.

Response to Comment 7-65

The resource sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of impacts associated with implementation of the proposed project. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant.

Response to Comment 7-66

As described in Response to Comment 7-65, the resources sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of impacts associated with implementation of the proposed project. As identified in Chapter 4 *Project Description*, the study area for evaluation of impacts for each resource area in Chapter 5 is defined as the area located within the SWP Service Area which includes the water delivery facilities of the SWP and service areas of the PWAs that receive water from the SWP.

As described in Chapter 1 *Introduction* of the DEIR, comments received on the NOP for the 2018 DEIR were taken into consideration in preparing the DEIR.

See also Master Response 2: Definition of the Proposed Project for additional description of the proposed project and discussion of relationship with Contract Extension Project.

Response to Comment 7-67

The resource sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of the potential for additional water transfers to occur with implementation of the proposed project. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of

the Proposed Project further discussion of the definition of the proposed project. See also Master Response 3 Program versus Project Level Analysis.

Response to Comment 7-68

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 7-69

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. Notwithstanding, however, the following is provided for informational purposes.

The resource sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of the potential for additional water transfers to occur with implementation of the proposed project. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of the Proposed Project further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 7-70

See Response to Comment 7-32 for discussion of the roles and responsibilities of DWR, as the lead agency, and the PWAs, as responsible agencies. Once specific future transfers and exchanges among the PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of the Proposed Project further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 7-71

As described in the DEIR in Chapter 4 *Project Description*, the proposed project would not change the water supply delivered by the SWP as SWP water would continue to be delivered to the PWAs consistent with current Contract terms, and all regulatory requirements. As described in Response to Comment 4-2, changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs could occur. Because the precise location, amount and timing of future water transfers

and exchanges are not known at this time, the analysis in the DEIR focuses on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of the Proposed Project further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 7-72

As described in the DEIR in Chapter 4 *Project Description*, the proposed project would not change the water supply delivered by the SWP as SWP water would continue to be delivered to the PWAs consistent with current Contract terms, and all regulatory requirements. As described in Response to Comment 4-2, changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs could occur. The resource sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of the potential for additional water transfers to occur with implementation of the proposed project. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR focuses on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of the Proposed Project further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 7-73

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 7-74

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant. Notwithstanding, however, the following is provided for informational purposes.

As described in the DEIR in Chapter 4 *Project Description*, the proposed project would not change the water supply delivered by the SWP as SWP water would continue to be delivered to the PWAs consistent with current Contract terms, and all regulatory requirements. Furthermore, no modeling was done for the proposed project. As described in the resource sections in Chapter 5 *Environmental Analysis* of the DEIR, because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR focuses on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. The project-level analysis could include any modeling efforts to support evaluation of the impacts associated with a specific transfer or exchange. See Master Response 2: Definition of the Proposed Project further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis. See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA to the proposed project.

Response to Comment 7-75

See Response to Comment 7-74. See also Response to Comment 7-8 for a discussion of the DEIR's analysis of climate change and resiliency.

Response to Comment 7-76

The CEQA Guidelines (Section 15126.6) require that "The 'no project' analysis shall discuss the existing conditions at the time of the notice of preparation is published…as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on currently plans and consistent with available infrastructure and community services."

See Chapter 7 *Alternatives* in the DEIR for a discussion of Alternative 1: No Project, including a description of what would be reasonably expected to occur in the foreseeable future if the project were not approved, including DWR and PWAs continuing to operate and finance the SWP under the existing contracts. See also Master Response 4: Range of Alternatives.

The proposed project is a separate and independent project from the Contract Extension Project as described in Master Response 2: Definition of the Proposed Project.

No revisions to the DEIR are required; therefore, recirculation is not required pursuant to CEQA Guidelines section 15088.5.

Response to Comment 7-77

The proposed project is a separate and independent project from the Contract Extension Project as described in Master Response 2: Definition of the Proposed Project.

CEQA Guideline Section 15126.6(e)(1) states that the purpose of the no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. Section 15126.6(e)(2) provides that the no project alternative should be the project that would be reasonably expected to occur in the foreseeable future if the proposed project were not approved based on current plans. Furthermore, Section 15126.6(e)(3)(A) states that no project alternative is usually the continuation of the existing project. When selecting and analyzing the No Project Alternative for the proposed Amendments, DWR considered what was reasonably expected to occur if the Contracts were not extended. As described in Chapter 7 *Alternatives* (Section 7.4.1, Alternative 1: No Project), "…absent the Contracts being extended, PWAs can submit Article 4 letters (at least 6 months prior to the existing expiration date for each Contract) which allows the term of the Contracts to be extended beyond their current expiration dates." "Therefore, under Alternative 1, the PWA's expiration date could be extended beyond the existing terms of the contracts (either by PWAs submitting their Article 4 letters or through the Contract extension process), enabling DWR to finance SWP expenditures beyond 2035 and continue to receive a reliable stream of revenues from PWAs for the construction, operation, and maintenance of the SWP. DWR and the PWAs would transfer and exchange water consistent with the existing water management and existing financial provisions in the Contracts." See also Master Response 4: Range of Alternatives.

Response to Comment 7-78

The proposed project is a separate and independent project from the Contract Extension Project as described in Master Response 2: Definition of the Proposed Project.

See also Response to Comment 7-77.

Response to Comment 7-79

See Response to Comment 7-77.

Response to Comment 7-80

See Response to Comment 7-77.

Response to Comment 7-81

The proposed project is a separate and independent project from the Contract Extension Project as described in Master Response 2: Definition of the Proposed Project.

When the no project alternative is the continuation of an existing regulatory plan or policy, such as the proposed Amendments, the no project alternative is the continuation of the existing plan, policy, or operation into the future. CEQA Guidelines Section 15126.6(e) requires consideration of a “no project” alternative. The purpose of this alternative is to allow the decision makers to compare the impacts of a proposed project with the impacts of not approving the project.

See DEIR Chapter 7 *Alternatives* (Section 7.4.1) for a discussion of Alternative 1: No Project, including a description of what would be reasonably expected to occur in the foreseeable future if the project were not approved, including DWR and PWAs continuing to operate and finance the SWP under the existing contracts. See also Master Response 4: Range of Alternatives.

Response to Comment 7-82

See Response to Comment 7-77.

Response to Comment 7-83

See Responses to Comments 7-76 through 7-82.

Response to Comment 8-1

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the 2018 Contract Amendment Project and California WaterFix are no longer relevant and no further response is required.

See Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project. On December 11, 2018, DWR filed a Notice of Determination (NOD) certifying the adequacy of the Water Supply Contract Extension Project EIR and approved the proposed Contract Extension Project extending the Contracts' expiration date to 2085 would enable DWR to finance SWP expenditures beyond 2035 and continue to receive a reliable stream of revenues from PWAs for the construction, operation, and maintenance of the SWP. The 2018 Contract Amendment Project evaluated in the 2018 DEIR, is separate and independent from the Contract Extension Project. The Contract Extension Project would occur independent of the 2018 Contract Amendment Project.

See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA to the proposed project.

Response to Comment 8-2

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the 2018 Contract Amendment Project and California WaterFix are no longer relevant and no further response is required.

As indicated in Chapter 7 *Alternatives* of the DEIR, Alternative 6 has been deleted from consideration and is no longer evaluated as an alternative to the Proposed Project.

Response to Comment 8-3

Per CEQA Guidelines Section 15125(a), the proposed project's impacts are measured against the existing conditions baseline, which is the date of the release of the Notice of Preparation on July 13, 2018. While not required by CEQA, Chapter 8 *Climate Change and Resiliency* of the DEIR provides information on how the proposed amendments would be affected by climate change. See Chapter 6 *Other CEQA Considerations* of the DEIR for the evaluation for growth inducing impacts of the proposed project (e.g. ways the proposed project could foster economic or population growth).

See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

See also Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR. Because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. As described in Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws. DWR would continue to maintain and operate the SWP and deliver total available water supplies to the PWAs consistent with the Contract terms and all regulatory requirements. See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project.

See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA to the proposed project.

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the 2018 Contract Amendment Project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 8-4

As discussed in Section 5.10 *Groundwater Hydrology and Water Quality* of the DEIR, it is possible that transfers and exchanges from agricultural to M&I PWAs could result in an increase in groundwater pumping resulting in a net deficit in aquifer volume or lowering the local groundwater table in some areas of the study area. DWR's conclusion is based on a program-level analysis, as there is uncertainty in the amount of groundwater use that may occur, and the lack of DWR's authority to provide any necessary mitigation even though PWAs may provide this information and mitigation in their project-level analysis for exchanges and transfers. Because the extent, location, and implementation timing of groundwater pumping associated with changes in transfers and exchanges implemented by PWAs are not known, it is concluded that the potential increase in groundwater pumping could result in a net deficit in aquifer volume or lowering the local groundwater table, and these impacts would be potentially significant.

However, it is also noted that it is also possible that transfers and exchanges of SWP water among the PWAs could result in benefits to groundwater levels, as transferred or exchanged water could be used instead of groundwater supplies or this water could be used for groundwater recharge.

As described in Section 5.1 *Method of Analysis* of the DEIR, once specific transfers (and exchanges) among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment. When PWAs do project-level analysis for exchanges and transfers, they could propose feasible mitigation measures to avoid or mitigate significant groundwater effects. However, because DWR has no information on specific implementation of the transfers and exchanges from the proposed project and it has no authority to implement mitigation measures in the PWA service area, this impact would remain significant and unavoidable.

No revisions to the DEIR are required; therefore, recirculation is not required pursuant to CEQA Guidelines section 15088.5.

Response to Comment 8-5

As described in Section 5.16 *Surface Water Hydrology and Water Quality* of the DEIR, no new or modified water conveyance facilities would be constructed or operated with implementation of the water transfers and exchanges under the proposed project. When evaluating the proposed project to the CEQA standards of significance, because there would be no new or modified facilities, there would be no associated changes in surface water hydrology (drainage patterns, drainage infrastructure capacity, flooding) or water quality attributed to construction or operational activities.

Since no housing or structures would be constructed as part of the proposed project, impacts associated with impeding or redirecting flood flows or placing housing within a 100-year flood hazard area would not occur. In addition, because the proposed project would not construct, modify, or otherwise affect levees or dams, or modify the way flood flows are routed, the project would not expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam, seiche, tsunami, or mudflow.

As a result, no impacts to surface water hydrology and water quality in the study area would occur and no mitigation measures are required.

See Chapter 1 *Introduction* (subsection 1.3 EIR *Certification and Project Approval Process*) PWAs, as responsible agencies under CEQA, and in their discretional

approval processes (including those for transfers and exchanges) will need meet all CEQA requirements.

Proposed transfers and exchanges are currently, and would continue to be with implementation of the proposed amendments, to be considered on a case-by-case basis subject to DWR approval. As described in Section 5.1 of the DEIR, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment.

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the 2018 Contract Amendment Project and California WaterFix are no longer relevant and no further response is required.

No revisions to the DEIR are required; therefore, recirculation is not required pursuant to CEQA Guidelines section 15088.5.

Response to Comment 8-6

The comment does not present issues regarding the adequacy of the environmental impact analysis. Notwithstanding; however, the following is provided for informational purposes. As described in Chapter 7 Alternatives of the DEIR, agriculture and urban water efficiency, conservation, and management measures are required by state statute and are met by local water agencies under existing law independent from the proposed project, including AB 1668 and SB 606 (see Section 5.20, Water Supply). Please also see Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance. The proposed project is independent of the Contract Extension Project. For a discussion on the scope of the proposed project and alternatives please see Master Response 2: Definition of the Proposed Project and Master Response 4: Range of Alternatives.

Response to Comment 8-7

The comment does not present issues regarding the adequacy of the environmental impact analysis. DWR appreciates the commenters involvement in the draft 2018 AIP. The public negotiation process and documents (including the June 2018 AIP and May 2020 AIP) are available to the public and agencies upon request to DWR. See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA.

Response to Comment 9-1

The scope of analysis is based on the project description provided in Chapter 4 *Project Description* of the DEIR. The proposed project would add, delete, and modify provisions of the Contracts and clarify certain terms of the Contracts that will provide greater water management regarding transfers and exchanges of SWP water within the service area.

As described in Master Response 2: Definition of the Proposed Project and in Master Response 3 Program vs Project Level Analysis, proposed amendments related to water transfers and water exchanges may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs that could result in changes to the physical environment. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR (both project and cumulative) is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws and regulations. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements.

Response to Comment 9-2

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, to be considered on a case-by-case basis subject to DWR approval. As described in Master Response 2: Definition of the Proposed Project and Section 5.1 *Method of Analysis* of the DEIR, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment. The resource sections in Chapter 5 *Environmental Analysis* of the DEIR, include an analysis

of the potential for additional water transfers to occur with implementation of the proposed project. See Section 5.20, *Water Supply*, of the DEIR for discussion of water supply impacts of the proposed project.

Response to Comment 9-3

See Response to Comment 9-1 through 9-2.

Response to Comment 10-1

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

See Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project. On December 11, 2018, DWR filed a Notice of Determination (NOD) certifying the adequacy of the Water Supply Contract Extension Project EIR and approved the proposed Contract Extension Project extending the Contracts' expiration date to 2085 would enable DWR to finance SWP expenditures beyond 2035 and continue to receive a reliable stream of revenues from PWAs for the construction, operation, and maintenance of the SWP. The 2018 Contract Amendment Project evaluated in the 2018 DEIR, is separate and independent from the Contract Extension Project. The Contract Extension Project would occur independent of the 2018 Contract Amendment Project.

Response to Comment 10-2

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

The resource sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of the potential increase in transfers and exchanges that could occur as a result of the proposed amendments. This analysis does not evaluate any financial implications of increased transfers and exchanges. CEQA and the CEQA Guidelines do not require a financial analysis, and do not recognize financial changes as physical changes to the environment requiring an impact analysis. However, economic and social effects can be used to determine if there are physical changes to the environment (CEQA Guidelines Section 15131). As such, this DEIR evaluates the potential physical change in the environment resulting potential economic and social effects caused by proposed contract amendments for each resource topic.

As further described in Section 5.1 *Methods and Analysis* of the DEIR, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the

appropriate project-level of CEQA documentation that would assess and publicly disclose any physical changes to the environment.

Response to Comment 10-3

Regarding comments on the long-term and permanent economic effects stemming from the allocation of WaterFix costs, see Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR. Because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

CEQA Guidelines section 15126.6(a) requires every EIR to describe and analyze a "range of reasonable alternatives" that "would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project..." CEQA does not require an EIR to consider any particular number of alternatives, nor does it mandate certain types of alternatives. CEQA also does not require that any particular alternative be analyzed, even if a specific, proposed alternative was submitted for agency consideration. "The range of alternatives required in an EIR is... to set forth only those alternatives necessary to permit a reasoned choice" regarding the proposed project. (CEQA Guidelines section 15126.6(f)). This range is determined, in part, by the particular scope and purpose of the project under review. The selection of alternatives must also be guided by CEQA's fundamental goal of environmental protection. See Public Resources Code sections 21000 and 21001.

The EIR must "focus on alternatives to the project…which are capable of avoiding or substantially lessening any significant effects of the project..." (CEQA Guidelines section 15126.6(b)). Also, CEQA does not require a lead agency consider alternatives to every feature or aspect of a project. Instead, the agency must consider alternatives to the project as a whole.

As noted in Master Response 4: Range of Alternatives, DWR gave close attention to all of alternatives proposed during the development of the 2018 and 2019 AIP and by the public, and many of the common themes and specifics were incorporated into the alternatives to the proposed project.

All alternatives, including the No-Project Alternative and the proposed project, allow PWAs to "opt out," by not signing the Contract Amendment. Additionally, a PWA is not obligated to make transfers and exchanges either under the existing water supply contract or under the proposed project. Therefore, an "opt out" alternative was not considered as a stand-alone alternative as it would not feasibly attain most of the basic

objectives of the project and would not avoid or substantially lessen any of the significant effects as compared to the proposed project. See also Master Response 4: Range of Alternatives for further discussion of the range of alternatives evaluated in the DEIR.

Response to Comment 10-4

See Responses to Comments 10-1 through 10-3.

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Response to Comment 11-1

The introductory portion of the letter is conclusory in nature and does not provide specific comments on the DEIR.

Response to Comment 11-2

With respect to the comments on the reasonable range of alternatives, see Master Response 4: Range of Alternatives.

Response to Comment 11-3

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 11-4

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 11-5

The introductory portion of the letter is conclusory in nature and does not provide specific comments on the DEIR.

Response to Comment 11-6

As described in Section 5.1 *Method of Analysis* on page 5.1-5, the DEIR evaluates potential physical changes that may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR focuses on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. The sufficiency of an EIR is to be reviewed in light of what is reasonably feasible; it is not reasonably feasible to provide analysis that attempts to forecast for future unknown transfers and exchanges (CEQA Guidelines section 15144 and 15151). Such reasonably feasible analysis will be accomplished when specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments because the PWAs must develop and comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of

the Proposed Project for further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

As described in Chapter 4 *Project Description* of the DEIR, the proposed amendments would result in a greater amount of water transfers among the PWAs than under the current Contract provisions. Based on DWR's past experience and discussions with PWAs, most water transfers that occur due to the proposed amendments would occur among the PWAs located south of the Delta and would not involve additional export of SWP water from the Delta. See Master Response 2: Definition of Proposed Project for a description on transfers and exchanges. The majority of PWAs are located south of the Delta. As part of existing operations of the SWP, project water is moved through the Delta in compliance with regulatory, environmental, and operational criteria, and when possible, stored in San Luis Reservoir for later delivery to the contracting PWAs, including those PWAs north of the Delta.

The resource sections in Chapter 5 of the DEIR include an analysis of the potential increase in transfers and exchanges that could occur as a result of the proposed amendments, including the potential for more frequent exchanges and transfer and exchange carryover water to another PWAs service area.

Response to Comment 11-7

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would not change the water supply delivered by the SWP as SWP water would continue to be delivered to the PWAs consistent with current Contract terms, and all regulatory requirements. See Master Response 2: Definition of Proposed Project for a description on transfers and exchanges.

With respect to the comments on level of analysis, see Master Response 3: Program versus Project Level Analysis.

Response to Comment 11-8

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Section 5.10 *Groundwater Hydrology and Water Quality* of the DEIR describes the methods of analysis, standard of significance, and impacts and mitigation measures for groundwater resources. See Section 5.10 *Groundwater Hydrology and Water Quality* of the DEIR for the evaluation of potential impacts associated with an increase in

groundwater pumping associated with changes in transfers and exchanges implemented by the PWAs as a result of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 11-9

Chapter 6 *Other CEQA Considerations (*subsection 6.1 *Cumulative Impacts),* in the DEIR describes the cumulative impacts and mitigation for groundwater supplies. As stated in this chapter, full implementation of SGMA is not anticipated until 2040 or 2042. Therefore, it is anticipated that the cumulative projects contribution to groundwater supplies would be significant. Because the extent, location, and implementation timing of groundwater pumping associated with changes in transfers and exchanges implemented by PWAs are not known, it is possible that both transfers and exchanges among the PWAs could result in changes to groundwater levels (either increases or decreases), if additional pumping were available in that area.

As stated in Chapter 6 *Other CEQA Considerations (*subsection 6.1 *Cumulative Impacts)*, PWAs would address project-level impacts in future site-specific environmental analysis conducted by lead agencies at the time such facilities or actions are proposed. PWAs could implement feasible mitigation measures such as increased monitoring and limiting groundwater pumping, requiring a return of the exchanged water to limit changes in groundwater levels, or rotating areas and timing of pumping to reduce significant impacts to less than significant.

See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 11-10

As state in Chapter 5.10 *Groundwater Hydrology and Water Quality* of the DEIR, “It is possible that transfers and exchanges of SWP water among the PWAs could result in benefits to groundwater levels, as transferred or exchanged water could be used instead of groundwater supplies or this water could be used for groundwater recharge. However, it is also possible that transfers and exchanges from agricultural to M&I PWAs could result in an increase in groundwater pumping resulting in a net deficit in aquifer volume or lowering the local groundwater table in some areas of the study area. DWR’s conclusion is based on a program-level analysis, as there is uncertainty in the amount of groundwater use that may occur, and the lack of DWR’s authority to provide any necessary mitigation even though PWAs may provide this information and mitigation in their project-level analysis for exchanges and transfers.”

As stated on page 5.10-21, “…because SGMA is in the process of being implemented and because the extent, location, and implementation timing of groundwater pumping

associated with changes in transfers and exchanges implemented by PWAs are not known, assumptions related to the ability of SGMA to mitigate any changes in groundwater levels are speculative." SGMA is discussed in more detail in the in the regulatory setting subsection of Section 5.10 *Groundwater Hydrology and Water Quality* of the DEIR and is evaluated as part of the cumulative analysis in Section 6.1 *Cumulative Analysis*. As explained in Response to Comment 11-6 and further discussed on page 5.10-21 of the DEIR, "The PWAs would, however, address project-level impacts in future site-specific environmental analysis conducted by lead agencies at the time such actions are proposed. PWAs could propose feasible mitigation measures to reduce significant impacts to less than significant in some cases, although it is not possible for DWR to conclude that feasible mitigation measures would be available to avoid or mitigate significant groundwater effects in all cases."

Regarding the comment on DWR limiting transfers and exchanges, see Chapter 7 *Alternatives* of the DEIR, which includes a description and a comparison of impacts to the proposed project for two alternatives that would limit transfers and exchanges: Alternative 2, Reduced Table A Deliveries and Alternative 3, Reduced flexibility in Water Transfers/Exchanges.

See also Master Response 2: Definition of the Proposed Project and Master Response 3: Program versus Project Level Analysis.

Response to Comment 11-11

See Master Response 2: Definition of the Proposed Project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 11-12

The proposed project does not include any change to existing water rights. As described in Chapter 4 *Project Description* of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws and regulations. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements

For a discussion of the project under consideration in this DEIR, see Master Response 2: Definition of the Proposed Project.

CEQA does not require a lead agency to analyze the extent that an environmental impact might disproportionately impact low-income or minority populations. Notwithstanding, however, the following is provided for informational purposes. The

proposed project would not build new or modify existing SWP facilities and it is anticipated that the PWAs would not construct or operate additional facilities or projects. Thus, it is not anticipated that this project will have disproportionate impacts to low-income or minority populations.

The water transfers and water exchanges may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs that could result in changes to the physical environment. As described in Section 5.1 *Method of Analysis* of the DEIR, because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR (both project and cumulative) is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. The resource sections in Chapter 5 *Environmental Analysis* of the DEIR include an analysis of the potential for additional water transfers to occur with implementation of the proposed project. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

DWR ensured that the public had an opportunity to participate through the CEQA process. DWR held two public meetings on the DEIR. DWR held a second public meeting on the DEIR because after DWR scheduled the first meeting, the Town of Paradise was struck by the Camp Fire which caused significant air quality problems in downtown Sacramento. Because of the lack of participation, as well as a request for another meeting due to the poor air quality, DWR scheduled a second public meeting.

Response to Comment 11-13

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

With respect to the comments about the effect of increased transfers on water security and allocation, as described in Master Response 2: Definition of the Proposed Project and in Chapter 4 *Project Description* of the DEIR, the proposed project would not change any of the PWA's Annual Table A amounts. The proposed project would also not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements. Therefore, DWR is not changing its operations under the Contracts; DWR pumps water from the Delta in compliance with all State and federal environmental laws and regulations and pursuant to its water right permits (see Chapter 4 *Project*

Description (subsection 4.5 *Required Permits and Approvals*). Furthermore, the proposed transfers and exchanges between PWAs have been and would continue to be subject to DWR's approval.

Response to Comment 11-14

With respect to the comments on the alternatives in the DEIR, see Master Response: 4: Range of Alternatives.

Response to Comment 11-15

With respect to comments on the environmentally superior alternative, see Master Response: 4: Range of Alternatives.

Response to Comment 11-16

With respect to comments on alternatives, see Master Response: 4: Range of Alternatives.

Response to Comment 11-17

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

The summary portion of the letter is conclusory in nature and does not provide specific comments on the DEIR. See response to comments 11-1 through 11-16.

Response to Comment 12-1

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, considered on a case-by-case basis subject to DWR approval. As described in Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

The Sacramento Valley Water Management Agreement addresses water management and development of additional supplies between water agencies north of the Delta, and the proposed project is separate and independent from it. The proposed project, while maintaining Contract compliance with the State Water Resources Control Board Water Rights Decision 1641, would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval and would not involve any structure or operational changes to water supplies north of the Delta. See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project.

Response to Comment 12-2

The introductory portion of this comment is conclusory in nature and does not provide specific comments on the DEIR.

See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 12-3

Chapter 2 *State Water Project* of the DEIR, summarizes the history and background of the SWP and presents the regulatory and policy framework for operating the SWP.

Chapter 2 *State Water Project* (Subsection 2.3.2, *Recent SWP Supply Allocation Amendments)*, of the DEIR summarizes recent amendments that resulted from the four settlement agreements with the five north of Delta PWAs (City of Yuba, County of Butte, Plumas County FC&WCD, Napa County FC&WCD, and Solano County WA). The information requested by the commenter is not required to evaluate the impacts of the proposed project.

The public negotiation process for development of the AIP is presented in Chapter 1 *Introduction* of the DEIR. The public process for development of the DEIR is also presented in Chapter 1 *Introduction* of this FEIR. See also Master Response 2: Definition of the Proposed Project for additional information on the development of the AIP. The public negotiation process and documents available to the public and agencies upon request to DWR.

No revisions to the DEIR are required per this comment; therefore, recirculation is not required pursuant to CEQA Guidelines section 15088.5.

Response to Comment 12-4

See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis for a discussion of why the environmental analysis in the DEIR is programmatic.

The information provided in Section 5.20 *Water Supply* of the DEIR was provided as part of description of existing conditions. As presented Section 5.20 *Water Supply* of the DEIR, information was gathered from PWAs regarding the proposed project between August 2018 through October 2018 by phone interviews with PWA representatives or written documents submitted to DWR by PWAs. The questions asked included those that addressed what DWR should use in this DEIR when describing the current status of surface water and groundwater management plans for your service area or county. Out of the 29 PWAs, 22 participated in phone interviews with DWR and several also provided written information; 2 provided only written information; 3 have been contacted, but the interview has not been scheduled; and 2 opted not to participate. This information was taken into consideration for development of the existing conditions related to individual PWA's water supply presented in Section 5.20, *Water Supply*, of the DEIR.

As it relates to the impact analysis of the proposed project presented in the DEIR, as described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the

PWAs Annual Table A amounts or change the water supply delivered by the SWP. Because the proposed project would not make a permanent change to PWA Annual Table A amounts or change the water supply delivered by the SWP, the information presented in the setting section to characterize existing PWA water supply is sufficient for the impact analysis contained in this DEIR. No revisions to the DEIR are required per this comment; therefore, recirculation is not required pursuant to CEQA Guidelines section 15088.5.

Response to Comment 12-5

The information presented on page 5.20-3 of the DEIR summarizes the sources of water supplies within PWA service areas, including the role of SWP supplies. The water use summary for Butte County was based on the 2001 Butte County Water Inventory and Analysis. The 2016 Butte County Water Inventory and Analysis Report cited in the comment presents water use information broken out by agricultural (irrigated and non-irrigated agricultural use), wetlands, and developed uses and does not provide any new information that would change the analysis or conclusions in the DEIR. The percentages of water use presented in the setting section is for context and background information, and it does not affect the impact analysis in the DEIR. The impact analysis for the proposed project evaluates if there are physical changes to the environment associated with potential changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs. No revisions to the DEIR are required per this comment; therefore, recirculation is not required pursuant to CEQA Guidelines section 15088.5.

Response to Comment 12-6

The cumulative impact analysis contained in Chapter 6 *Other CEQA Considerations* (subsection 6.1 *Cumulative Impacts)* of the DEIR, did address all of the resource topics evaluated in Chapter 5 Environmental Analysis of the DEIR. As described in Chapter 6 *Other CEQA Considerations* (subsection 6.1 *Cumulative Impacts)* of the DEIR, implementation of the proposed project would not result in physical environmental impacts on the following resource areas: hazards and hazardous materials; noise; population, employment and housing; public services and recreation; surface water hydrology and water quality; transportation; and utilities and service systems. Therefore, these resource areas would not contribute to a cumulative effect, and as a result cumulative effects associated with these resource areas are not discussed further in the DEIR.

Implementation of the proposed project would result in physical environmental change that could contribute to a cumulative effect on the following resource areas: aesthetics,

agriculture and forest resources, air quality, biological resources, cultural resources, energy, geology and soils, GHG, groundwater hydrology and water quality, land use and planning, and water supply. These cumulative effects focused on effects to groundwater supplies, subsidence, fallowing and changes in crop patterns, energy and GHG, reservoir storage, and surface water flow above or below diversions because there are the potential physical changes that could occur as a result of the proposed amendments. The analysis and results of the cumulative impacts analysis is presented in Chapter 6 *Other CEQA Considerations* (subsection 6.1 *Cumulative Impacts)* of the DEIR.

Response to Comment 12-7

The introductory portion of this comment is conclusory in nature and does not provide specific comments on the DEIR.

Response to Comment 12-8

With respect to comments on source water for SWP, origin of water, volume of water, etc., see Master Response 3: Program versus Project Level Analysis.

The geographic area of study area is presented in Chapter 2 *State Water Project* of the DEIR. As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include any permanent change to the PWAs Annual Table A amounts or change the water supply delivered by the SWP. Therefore, defining the project area as the SWP Service area is sufficient to conduct the analysis for the proposed project. Because the proposed project would not result in any changes to water supply delivered by the SWP the additional information describing sources of water presented in the comment would not change the results or conclusion in the DEIR. See also Master Response 2: Definition of the Proposed Project.

Response to Comment 12-9

The information presented in Exhibit A does not address the adequacy or content of the DEIR; therefore, no further response is required. Notwithstanding, however, the following is provided for information purposes. As described in Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project and Master Response 3: Program versus Project Level Analysis.

Response to Comment 12-10

The public negotiation process for development of the AIP is presented in Chapter 1 *Introduction* of the DEIR. The public process for development of the DEIR is also presented in Chapter 1 *Introduction* of this FEIR. See also Master Response 2: Definition of the Proposed Project for additional information on the development of the AIP and how the May 2019 AIP describes the proposed project evaluated in the DEIR The public negotiation process and documents are available to the public and agencies upon request to DWR.

Response to Comment 12-11

See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project and for further explanation on transfers and exchanges.

As described in Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements.

Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, to be considered on a case-by-case basis subject to DWR approval. As described in Master Response 2: Definition of the Proposed Project and Section 5.1 *Method of Analysis* of the DEIR, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment.

Response to Comment 12-12

The DEIR did not analyze impacts to groundwater resources based on an assumption that the proposed project would satisfy a demand for water such that it would stem the decline of groundwater. As described in Section 5.10 *Groundwater Hydrology and Water Quality* of the DEIR, the analysis of potential impacts to groundwater resulting from the proposed project notes that it is possible that transfers and exchanges of SWP water among the PWAs could result in benefits to groundwater levels, as transferred or exchanged water could be used instead of groundwater supplies or used for groundwater recharge. At the same time, the impact conclusion acknowledges the potential for transfers and exchanges from agricultural to M&I PWAs to result in increased groundwater pumping that could lead to a net deficit in aquifer volume or the lowering of local groundwater in some areas of the study area. The impact is

determined to be potentially significant because there is uncertainty in the amount of groundwater use that may occur, and the lack of DWR's authority to provide any necessary mitigation even though PWAs may provide this information and mitigation in their project-level analysis for exchanges and transfers. Because the extent, location, and implementation timing of groundwater pumping associated with changes in transfers and exchanges implemented by PWAs are not known, it is concluded that the potential increase in groundwater pumping could result in a net deficit in aquifer volume or lowering the local groundwater table, and these impacts could be potentially significant.

The information for groundwater levels in the Northern Sacramento Valley presented in the comment would not change the results or conclusion in the DEIR. No revisions to the DEIR are required.

Response to Comment 12-13

See Response to Comment 12-1 for discussion of why the proposed project is a separate and independent project from the Sacramento Valley Water Management Agreement. See also Master Response 5: Relationship to Plans, Projects, and other Regulatory Compliance.

Response to Comment 12-14

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

Response to Comment 12-15

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

CEQA does not require a lead agency to analyze the economic and social effects of a project. Economic and social effects alone are not considered impacts on the environment. "Environment" is defined as "the physical conditions that exist within an area affected by a proposed project, including land, air, water, minerals, flora and fauna,

noise, and objects of historic or aesthetic significance." (Pub. Resources Code, § 21060.5; CEQA Guidelines, § 15360.) Under this definition, economic and social effects are not related to physical impacts need not be evaluated in an EIR. (CEQA Guidelines § 15131, subd. (a).) As described in Section 5.1 *Methods of Analysis* of the DEIR, while CEQA and the CEQA Guidelines do not require a financial analysis, and do not recognize financial changes as physical changes to the environment requiring an impact analysis, economic and social effects can be used to determine if there are physical changes to the environment (CEQA Guidelines Section 15131). As such, this DEIR evaluates the potential physical change in the environment that may result from economic and social effects caused by the proposed contract amendments for each resource topic included in Chapter 5 Environmental Analysis of the DEIR.

Response to Comment 12-16

The DEIR summarizes existing groundwater-surface water interaction and land subsidence for each hydrologic region in the study area in Section 5.10 *Groundwater Hydrology and Water Quality* of the DEIR.

See Response to Comment 12-12 for a discussion of potential impacts to groundwater resources resulting from implementation of the proposed project. Because the proposed project would not change the water supply delivered by the SWP, and DWR would continue to maintain and operate the SWP consistent with the Contract terms and all regulatory requirements, additional information characterizing groundwater overdraft conditions and how the CVP and SWP operations influence streamflow depletion in the Sacramento River Hydrologic Region would not change the results or conclusion in the DEIR. No revisions to the DEIR are required.

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

See Response to Comment 12-6 for comments regarding cumulative impacts.

Response to Comment 12-17

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

The context and history provided by the commenter does not reference the water involved in this proposed amendment and; therefore, does not need to be listed in the DEIR. Transfers and exchanges of Table A water under the current Contract between PWAs are described in Chapter 2 *State Water Project* of the DEIR. As described in Chapter 2 *State Water Project* of the DEIR, DWR has approved water transfers and exchanges of Table A water between PWAs to achieve water supply management flexibility and water supply reliability of the SWP. DWR has administered programs to facilitate management and delivery of both allocated SWP water and non-SWP water purchased by the PWA's such as the Drought Water Banks, numerous water transfers and exchanges, short-term water purchases for drought relief, and delivery of SWP water on behalf of the PWAs to storage programs outside their service areas as part of exchanges and transfers. These programs provide greater ability to maximize available water for the SWP and to the PWAs during a range of hydrologic years.

As described in Chapter 4 *Project Description*, the proposed project would add, delete, and modify provisions of the Contracts and clarify certain terms of the Contracts that will provide greater water management regarding transfers and exchanges of SWP water within the SWP service area. The proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts. The proposed project would not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements. Therefore, DWR is not changing its operations under the Contracts; DWR pumps water from the Delta in compliance with all State and federal environmental laws and regulations and pursuant to its water right permits (see Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR.

As described in Section 5.1 *Method of Analysis* on page 5.1-5, the DEIR evaluates potential physical changes that may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR focuses on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 12-18

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See Response to Comment 12-1 for discussion of why the proposed project is a separate and independent project from the Sacramento Valley Water Management Agreement.

Response to Comment 12-19

Geologic and soil conditions of the study area are described in Section 5.8 *Geology, Soils, and Mineral Resources* of the DEIR. The Cascade Range Province is noted on page 5.8-1. Surface hydrologic conditions, including Sacramento River Hydrologic Region, are described in Section 5.16 *Surface Water Hydrology and Water Quality*. The page reference in the comment is to a description of groundwater-surface water interaction presented in Section 5.10 *Groundwater Hydrology and Water Quality*.

The proposed project would not change the water supply delivered by the SWP, and DWR would continue to maintain and operate the SWP consistent with the Contract terms and all regulatory requirements (see Section 5.1 *Method of Analysis* of the DEIR). Therefore, for the purposes of assessing impacts of the proposed project incorporating additional information describing the Cascade Range would not change the results or conclusions in the DEIR. No revisions to the DEIR are required.

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 12-20

As described in Section 5.1 *Method of Analysis* on page 5.1-5, the DEIR evaluates potential physical changes that may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR focuses on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation. See Master Response 2: Definition of

the Proposed Project for further discussion of the definition of the proposed project. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 12-21

With respect to comments on cumulative impacts and other projects to be analyzed in the DEIR, see Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance.

Response to Comment 12-22

The comment does not present issues regarding the adequacy of the environmental impact analysis. Notwithstanding, however, the following is provided for informational purposes. See Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance for a discussion on reduced reliance. Additionally, as described in Chapter 7 *Alternatives* of the DEIR, agriculture and urban water efficiency, conservation, and management measures are required by state statute and are met by local water agencies under existing law independent from the proposed project, including AB 1668 and SB 606 (see Section 5.20 *Water Supply* of the DEIR).

Response to Comment 12-23

The roles and responsibilities for the lead agency and responsible agencies are described in both Chapter 1 *Introduction* and Chapter 4 *Project Description* of the DEIR. As described in Chapter 1 the PWAs are responsible agencies who may use this EIR to meet their CEQA requirements in their discretionary approval process for approving the proposed amendments.

As described in Section 5.1 *Methods of Analysis* of the DEIR, once specific transfers (and exchanges) among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess and publicly disclose any physical changes to the environment. They could use this programmatic EIR as the initial basis for the development of their project-level CEQA documents. See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 12-24

Because the proposed project would not build or modify existing SWP facilities or change the water supply delivered by the SWP, it would not impact special status species or require a permit under the jurisdiction of the CDFW or other resource agencies. Therefore, CDFW is not a responsible agency under CEQA for the proposed project.

Furthermore, as described in Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements. See Master Response 2: Definition of the Proposed Project for further discussion of the definition of the proposed project.

As the lead agency under CEQA, DWR will make a decision regarding approval of the proposed amendments. As described in Chapter 1 *Introduction* of the DEIR, the PWAs are responsible agencies who may use this EIR to meet their CEQA requirements in their discretionary approval process for approving the proposed amendments. Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, to be considered on a case by case basis subject to DWR approval. As described in Section 5.1 *Method of Analysis* of the DEIR, once specific transfers and exchanges among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment. Therefore, transfers and exchanges are not now nor would they be in the future exempt for being implemented consistent with all applicable regulatory requirements.

See also Master Response 3: Program versus Project Level Analysis.

See Response to Comment 12-12 for a discussion of potential impacts to groundwater resources resulting from implementation of the proposed project. Chapter 6, Other CEQA Considerations (subsection 6.1, *Cumulative*) of the DEIR concludes that the incremental contribution of the proposed project's effect on groundwater supplies and subsidence would be cumulatively considerable as full implementation of SGMA is not anticipated until 2040 or 2042.

The PWAs, not DWR, would be responsible for implementing feasible mitigation measures to address impacts associated with transfers and exchanges. Because SGMA is in the process of being implemented and because the extent, location, and implementation timing of groundwater pumping associated with changes in transfers and exchanges implemented by PWAs are not known, assumptions related to the ability of SGMA to mitigate any changes in groundwater levels are speculative. Therefore, DWR cannot currently conclude that feasible mitigation measures will be implemented to avoid significant impacts in all cases. PWAs would address project-level impacts in future site-specific environmental analysis conducted by lead agencies at the time such facilities or actions are proposed. PWAs could implement feasible mitigation measures

such as increased monitoring and limiting groundwater pumping, requiring a return of the exchanged water to limit changes in groundwater levels, or rotating areas and timing of pumping to reduce significant impacts to less than significant. However, such implementation and enforcement of mitigation would be within the responsibility and jurisdiction of public agencies other than DWR and it is not possible for DWR to conclude that feasible mitigation measures would be available to avoid or mitigate significant groundwater effects in all cases. Therefore, because DWR has no information on specific implementation of the transfers and exchanges from the proposed project and it has no authority to implement mitigation measures in the PWA service area, the cumulative impact would remain significant and unavoidable.

See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA to the proposed project.

The information presented in Exhibits F through L would not change the results or conclusions in the DEIR. No revisions to the DEIR are required.

Response to Comment 12-25

This comment is conclusory in nature and does not provide specific comments on the DEIR. No revisions to the DEIR are required per this comment; therefore, recirculation is not required pursuant to CEQA Guidelines section 15088.5.

Response to Comment 12-26

The commenter's request to be notified of meetings and actions involving the proposed project is noted.

Response to Comment 12-27

With regards to Roger Moore letter on the Contract Extension Project, see Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

Response to Comment 13-1

The comment is an introduction to the content of the rest of Letter 13. See Responses to Comments 13-2 through 13-29.

Response to Comment 13-2

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for further discussion of the project under consideration in this DEIR and for discussion of relationship with Contract Extension Project.

Response to Comment 13-3

See Master Response 5 Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA to the proposed project.

Response to Comment 13-4

As presented in Section 5.1 *Methods of Analysis* of the DEIR, information was gathered from PWAs regarding the proposed project between August 2018 through October 2018 by phone interviews with PWA representatives or written documents submitted to DWR by PWAs. As described on page 5.1-4, out of the 29 PWAs, 22 participated in phone interviews; 2 provided written responses; 3 did not respond to scheduling requests; and 2 opted not to participate. The questions asked included those that addressed what DWR should use in this DEIR when describing the current status of surface water and groundwater management plans for the service area or county. This information was taken into consideration for development of the impact analysis related to individual PWA's water supply presented in Section 5.20 *Water Supply* of the DEIR but it was not the only source of information used to for the impact analysis. The environmental setting and evaluation of impacts on hydrology and water quality were based on a review of existing environmental studies and data, and professional judgement.

Response to Comment 13-5

For discussion of the proposed project evaluated in the DEIR see Master Response 2: Definition of the Proposed Project. For a discussion of the level of detail regarding the location, amount, and timing of future water transfers and exchanges analyzed in the EIR, see Master Response 3: Program versus Project Level Analysis.

Response to Comment 13-6

See Master Response 2: Definition of the Proposed Project for discussion of the proposed project. See also Master Response 3: Program versus Project Level Analysis. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

Response to Comment 13-7

For a discussion on why transfers and exchanges are within the Table A amounts and would not substantially alter flow variability of the river systems, see Master Response 2: Definition of the Proposed Project. As described in Master Response 3: Program versus Project Level Analysis and in Section 5.1 *Method of Analysis* of the DEIR, and in the technical resource sections of Chapter 5 *Environmental Analysis*, portions of the proposed amendments (amendments related to water transfers and water exchanges) may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs that could result in changes to the physical environment. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR (both project and cumulative) is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

Response to Comment 13-8

For a discussion on why transfers and exchanges are within the Table A amounts, see Master Response 2: Definition of the Proposed Project. For discussion of the quantification water use estimates in the EIR, see Master Response 3: Program versus Project Level Analysis.

For a discussion on the relationship of the Sacramento/Delta Update to the Bay-Delta Plan to the proposed Project, see Master Response 5: Relationship to Other Plans, Projects and Regulatory Compliance.

Response to Comment 13-9

For a discussion on why transfers and exchanges would not substantially alter flow variability of the river systems, see Master Response 2: Definition of the Proposed Project.

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

See Section 5.5 *Biological Resources* of the DEIR, for reasonably foreseeable impacts to biological resources from the proposed project.

Response to Comment 13-10

As described in Master Response 3: Program versus Project Level Analysis and in Section 5.1 *Method of Analysis* of the DEIR, and in the technical resource sections of Chapter 5 *Environmental Analysis*, portions of the proposed amendments (amendments related to water transfers and water exchanges) may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs that could result in changes to the physical environment. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR (both project and cumulative) is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

The environmental setting discussion in Section 5.10 *Groundwater Hydrology and Water Quality* of the DEIR, provides information on groundwater conditions for each hydrologic region. The analysis of potential impacts to groundwater resulting from the proposed project notes that it is possible transfers and exchanges of SWP water among the PWAs could result in benefits to groundwater levels, as transferred or exchanged water could be used instead of groundwater supplies or used for groundwater recharge. At the same time, the impact conclusion acknowledges the potential for transfers and exchanges from agricultural to M&I PWAs to result in increased groundwater pumping that could lead to a net deficit in aquifer volume or the lowering of local groundwater in some areas of the study area. The impact is determined to be potentially significant because there is uncertainty in the amount of groundwater use that may occur, and the lack of DWR's authority to provide any necessary mitigation even though PWAs may

provide this information and mitigation in their project-level analysis for exchanges and transfers. Because the extent, location, and implementation timing of groundwater pumping associated with changes in transfers and exchanges implemented by PWAs are not known, it is concluded that the potential increase in groundwater pumping could result in a net deficit in aquifer volume or lowering the local groundwater table, and these impacts would be potentially significant. As a result, it is appropriate for the project-specific analysis to be conducted once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments. At that time, the PWAs will comply with the appropriate project-level CEQA documentation.

See also Master Response 2: Definition of the Proposed Project.

Response to Comment 13-11

As described in Master Response 3: Program versus Project Level Analysis and in Section 5.1 *Method of Analysis* of the DEIR, and in the technical resource sections of Chapter 5 *Environmental Analysis*, portions of the proposed amendments (amendments related to water transfers and water exchanges) may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs that could result in changes to the physical environment. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR (both project and cumulative) is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

As described in Section 5.15 *Public Services and Recreation*, while DWR has approved water exchanges pursuant to the existing Contracts, the proposed project would provide the PWAs with increased flexibility for short-term and long-term planning of water supplies. As a result, exchanges may be used more frequently to respond to variations in hydrology, such as dry-year water supplies. However, because it is assumed that no new facilities would be constructed and operated, or existing facilities modified to accommodate the increases in exchanges, there would be no increase in population to support operations and maintenance activities. Because there would be no change in population, there would also be no change in use or demand for recreational facilities."

See also Master Response 2: Definition of the Proposed Project.

Response to Comment 13-12

For a discussion on why transfers and exchanges are within the Table A amounts and would not substantially alter flow variability of the river systems, see Master Response 2: Definition of the Proposed Project. As described in Chapter 4 *Project Description* of the DEIR, Master Response 2: Definition of the Proposed Project and in Section 5.16 *Surface Water Hydrology and Water Quality*, water transfers and exchanges would be implemented using existing physical facilities and operational and regulatory processes, including CEQA compliance. The proposed project would not build any new or modify existing SWP facilities and it is anticipated that the PWAs would not construct or operate additional facilities or projects, including housing or structures that would alter flow.

Response to Comment 13-13

For a discussion on why proposed transfers and exchanges would not substantially alter flow variability of the river systems, see Master Response 2: Definition of the Proposed Project. As described in Chapter 8 *Climate Change and Resiliency* of the DEIR, the California Supreme Court held that CEQA does not have to consider the effect of the environment (including climate change) on a project (California Bldg. Indus. Ass'n v Bay Area Air Quality Mgmt. Dist. (2015) 62 Cal.4th 369). However, the chapter describes how greater water management of Table A and Article 21 water would allow the PWAs to respond to the potential effects of climate change by having additional flexibility in transferring/exchanging Table A and Article 21 water to other PWAs depending on the water year and availably of water. See also Response to Comment 13-12 for further discussion of project impacts related to surface water hydrology and quality.

Response to Comment 13-14

For a discussion of the COA see Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance.

Response to Comment 13-15

For a discussion on why transfers and exchanges are within the Table A amounts, see Master Response 2: Definition of the Proposed Project.

As described in Section 5.14 *Population, Employment and Housing* of the DEIR, no new facilities would be constructed and operated, or existing facilities modified to accommodate the increases in transfers there would be no increase in population to support construction and operations and maintenance activities. In addition, the proposed amendments do not propose new housing or employment uses that could directly induce population growth.

Growth inducing effects of implementation of the proposed project are evaluated in Chapter 6 *Other CEQA Considerations* (Section 6.4 *Growth-Inducing Impact*) of the DEIR. As described in Section 6.4, the proposed transfer and exchange provisions would provide the PWAs with increased flexibility for short-term and long-term planning of their SWP water supplies. More frequent transfer and exchange of Table A and Article 21 water would increase the reliability of SWP supplies for M&I PWAs that could support additional population in jurisdictions within the M&I PWA service areas. However, while with the proposed amendments transfers and exchanges could be more frequent and longer in duration, they would not be a permanent transfer of a PWAs Annual Table A amounts; therefore, absent other factors it would not represent a viable long-term source of urban water supply to support additional growth. Therefore, the proposed amendments would not result in additional water supply that could support growth over what is currently planned for in those jurisdictions and the proposed project would not result in indirect growth inducement. Approval or denial of development proposals is the responsibility of the cities and counties in the study area and not DWR. Cities and counties are also responsible for considering the environmental effects of their growth and land use planning decisions (including, but not limited to, conversion of agricultural land to urban uses, loss of sensitive habitats, and increases in criteria air emissions). As new developments are proposed, or general plans adopted, local jurisdictions prepare environmental compliance documents to analyze the impacts associated with development in their jurisdiction pursuant to CEQA. The impacts of growth would be analyzed in detail in general plan EIRs and in project-level CEQA compliance documents. Mitigation measures for identified significant impacts would be the responsibility of the local jurisdictions in which the growth would occur. If identified impacts could not be mitigated to a level below the established thresholds, then the local jurisdiction would need to adopt overriding considerations.

Response to Comment 13-16

For a discussion on why transfers and exchanges would not substantially alter flow variability of the river systems, see Master Response 2: Definition of the Proposed Project. As the project would not substantially alter flow variability of the river systems, the proposed project would not result in direct physical impact on aesthetics relating to the natural stream bed conveyance points. For a discussion on potential impacts on aesthetics from the proposed project, see Section 5.2 *Aesthetics* of the DEIR.

Response to Comment 13-17

For a discussion on why transfers and exchanges would not substantially alter flow variability of the river systems, see Master Response 2: Definition of the Proposed Project. As the project would not substantially alter flow variability of the river systems,

the proposed project would not result in direct physical impact on geology and soils, specifically channel geometry of a watershed and/or riparian zone degradation.

For a discussion on potential impacts on geology and soils from the proposed project, see Section 5.8, *Geology and Soils*. For a discussion on potential impacts on existing drainage patterns of the site or area, see Section 5.16 *Surface Water Hydrology and Water Quality* of the DEIR.

Response to Comment 13-18

For a discussion on why transfers and exchanges would not substantially alter the frequency, timing, and amount of water flowing through natural stream channels see Master Response 2: Definition of the Proposed Project.

For a discussion on why the proposed project would not impact forestry resources see Section 5.3 *Agriculture and Forest Resources* of the DEIR.

Response to Comment 13-19

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

For a discussion on why the proposed project would not impact hazards and hazardous material, see Section 5.11 *Hazards and Hazardous Materials* of the DEIR.

Response to Comment 13-20

For a discussion on why transfers and exchanges are within the Table A amounts, see Master Response 2: Definition of the Proposed Project.

For a discussion on why transfers and exchanges would not result in water being used for purposes differing from those under the current water contracts, see Master Response 2: Definition of the Proposed Project.

For a discussion on why the proposed project would have less than significant impacts on land use and planning, see Section 5.12, *Land Use and Planning* of the DEIR.

Response to Comment 13-21

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under

CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

For discussion of the use of historical water usage data and forecasted future water use estimates in the EIR, see Master Response 3: Program versus Project Level Analysis.

The clear and foreseeable potential impacts of the proposed project were discussed in Section 5.2 through Section 5.20 of the DEIR. Chapter 6 *Other CEQA Considerations*, Section 6.1 *Cumulative Impacts*, provides a discussion of CEQA analysis requirements for assessment of cumulative impacts and explains the cumulative impacts assessment developed from the analysis of proposed project impacts provided in the technical sections of Chapter 5 *Environmental Analysis*. Based on criteria listed in Section 6.1, the following projects were considered in the cumulative analysis:

1. Contract Extension Project
2. Monterey Amendment and Settlement Agreement
3. Sustainable Groundwater Management Act Implementation

Each of these projects was further described, followed by an assessment of if each of these projects in combination with the proposed project would contribute to a cumulative impact, in Section 6.1, *Cumulative Impacts.*

Response to Comment 13-22

For a discussion on the development, screening, and range of alternatives considered for the proposed project see Master Response 4: Range of Alternatives. Master Response 4 also provides further discussion of how DWR considered reduced Table A delivery and increased water conservation in the alternatives analysis.

Response to Comment 13-23

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

For a discussion on the development, screening, and range of alternatives considered for the proposed project see Master Response 4: Range of Alternatives.

Response to Comment 13-24

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, Alternative A raised in the comment is reflected in the proposed project. See also Master Response 2: Definition of the Proposed Project. For a discussion on the development, screening, and range of alternatives considered for the proposed project see Master Response 4: Range of Alternatives.

Response to Comment 13-25

Please see Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR. For a discussion on why transfers and exchanges are within the Table A amounts, see Master Response 2: Definition of the Proposed Project. The proposed project would add, delete, and modify provisions of the Contracts and clarify certain terms of the Contracts that will provide greater water management regarding transfers and exchanges of SWP water within the SWP service area consistent with applicable laws, contractual obligations, and agreements. The proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts. The proposed project would not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements.

As described in Section 5.10 *Groundwater Hydrology and Water Quality* of the DEIR, the analysis of potential impacts to groundwater resulting from the proposed project notes that it is possible that transfers and exchanges of SWP water among the PWAs could result in benefits to groundwater levels, as transferred or exchanged water could be used instead of groundwater supplies or used for groundwater recharge. The impact is determined to be potentially significant because there is uncertainty in the amount of groundwater use that may occur. The proposed project is a framework under which PWAs can propose transfers and exchanges, but does not approve any actual proposed transfers or exchanges. As described in the May 2019 AIP, subject to review and approval by DWR, there are basic criteria that any proposed transfer or exchange must meet before it can occur, including but not limited to:

- AIP 3.2.2 Transfers and exchanges must not harm non-participating PWAs
- AIP 3.2.3 Transfers and exchanges must not create significant adverse impacts in a PWA service area.
- AIP 3.2.4 Transfers and exchanges shall comply with all applicable laws and regulations.

For a discussion on the development, screening, and range of alternatives considered for the proposed project see Master Response 4: Range of Alternatives.

Response to Comment 13-26

As discussed in Chapter 8 *Climate Change and Resiliency* of the DEIR, changes in the frequency and timing of water transfers and exchanges would not be anticipated to result in a significant increase in greenhouse gas emissions that could have a significant impact on the environment. Furthermore, as discussed in Section 5.9 *Greenhouse Gas Emissions*, the proposed project would be considered not likely to create significant impacts or conflicts to the goals and objectives established through AB 32 and subsequent related state law and regulations, if all potential impacts can be managed and mitigated through procedures and protocols established in DWR's Greenhouse Gas Emissions Reduction Plan. See also Response to Comment 13-13.

Response to Comment 13-27

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

See Master Response 5: Relationship to other Plans, Projects and Regulatory Compliance for a discussion of the relationship of COA to the proposed project.

Response to Comment 13-28

See Response to Comments 15-1 through 15-31

Response to Comment 13-29

The comment is a conclusion to the content of the rest of Letter 13. See Responses to Comments 13-2 through 13-29.

No revisions to the DEIR are required per the comment; therefore, recirculation is not required pursuant to CEQA Guidelines section 15088.5.

Response to Comment 14-1

The comment is an introduction to the content of the rest of Letter 14. See Responses to Comments 14-2 through 14-11.

Response to Comment 14-2

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for further discussion of the project under consideration in this DEIR and for discussion of relationship with Contract Extension Project.

Response to Comment 14-3

See Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance for a discussion of the COA to the proposed project.

Response to Comment 14-4

See Master Response 3: Program versus Project Level Analysis for discussion of the use of historical data and quantification water use estimates and assessment of individual water users in the EIR.

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

As described on page 4-6 in Chapter 4, *Project Description*, the proposed project allows the PWAs to enter into water transfers, as primarily defined in amended Contract Article 21 and Article 56, subject to DWR's approval. In addition, as described on page 4-5 in Chapter 4, *Project Description*, per AIP I.4.1 and I.4.2, "The contracts will be modified to reflect that the PWAs shall provide to DWR a resolution or appropriate document to confirm it has complied with all applicable laws and that the transfer/exchange will not harm others or the SWP operations and to follow a transparent process for transfers/ exchanges." The "applicable laws" include CEQA compliance.

Under existing conditions and under the current Contracts, PWA's are allowed to rely on, and currently complete, single-year transfers.

Response to Comment 14-5

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

For a discussion on the development, screening, and range of alternatives considered for the Proposed Project, see Master Response 4: Alternatives.

Response to Comment 14-6

As described in Chapter 8, *Climate Change and Resiliency*, the California Supreme Court held that CEQA does not have to consider the effect of the environment (including climate change) on a project (California Bldg. Indus. Ass'n v Bay Area Air Quality Mgmt. Dist. (2015) 62 C4th 369). However, DWR provided information on climate change and resiliency as it relates to the proposed project. In addition, Chapter 8, *Climate Change and Resiliency*, included information DWR's Fourth Climate Change Assessment.

Pages 8-2 and 8-3 describe how the proposed amendments would be affected by climate change and if future changes in climate are likely to exacerbate proposed project impacts.

Response to Comment 14-7

See Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance for a discussion of the relationship of the CVP and SWP Biological Opinion to the proposed project.

Response to Comment 14-8

See Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance for a discussion of the relationship of the Bay-Delta Water Quality Control Plan to the proposed project.

Response to Comment 14-9

The comment does not present issues regarding the adequacy of the environmental impact analysis. See Master Response 5: Relationship to other Plans, Projects, and Other Regulatory Compliance regarding reduced reliance. For a discussion on the range of alternatives please see Master Response 4: Range of Alternatives.

The proposed project would add, delete, and modify provisions of the Contracts and clarify certain terms of the Contracts that will provide greater water management

regarding transfers and exchanges of the SWP water within the SWP service area consistent with applicable laws, contractual obligations, and agreements. The proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts. The proposed project would not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements.

Response to Comment 14-10

See response to comment 14-6. No revisions to the DEIR are required per the comment; therefore, recirculation is not required pursuant to CEQA Guidelines section 15088.5.

Response to Comment 14-11

The comment is a conclusion to the content of the rest of Letter 14. See Responses to Comments 14-2 through 14-10.

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Response to Comment 15-1

Comment noted.

Response to Comment 15-2

The comment does not address the adequacy or content of the DEIR and is noted.

Response to Comment 15-3

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-4

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. As described Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-5

The comment does not present issues regarding the adequacy of the environmental impact analysis. Notwithstanding; however, the following is provided for informational purposes. Regarding changes to the project, please see Response to Comment 15-4. Please also see Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance

Response to Comment 15-6

See Response to Comment 15-4.

Response to Comment 15-7

As described in Chapter 1 *Introduction* of the FEIR, the public comment for the State Water Project Water Supply Contract Amendments for Water Management and California Waterfix Draft Environmental Impact Report (2018 DEIR), State Clearinghouse Number 2018072033, was extended so that those who were affected by the Camp Fire had additional time to review and comment. The total comment period was 76 days from October 26, 2018 to January 9, 2019.

However, as described Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, the June 27, 2018 Draft Agreement in Principle for the SWP Water Supply Contract Amendment for Water Management and California Waterfix (June 2018 AIP) described the proposed project evaluated in the 2018 DEIR. Because approval of the California WaterFix was set aside, on May 20, 2019 DWR and the SWP PWAs held a public meeting to negotiate an amendment to the June 2018 AIP that proposed removal of the provisions of the State Water Resources Development System (SWRDS) Water Supply Contracts (Contracts) that would address an equitable approach for cost allocation of California WaterFix. Based on the May 20, 2019 negotiation, cost allocation is no longer part of the AIP. This May 2019 AIP; was the proposed project evaluated in the State Water Project Water Supply Contract Amendments for Water Management Partially Recirculated DEIR, published February 2020 (2020 Partially Recirculated DEIR).

Response to Comment 15-8

See Responses to Comments 15-9 through 15-31.

Response to Comment 15-9

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include transfer or exchange of non-SWP water. See also Master Response 2: Definition of Proposed Project for further discussion of the definition of the proposed project.

Response to Comment 15-10

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

Response to Comment 15-11

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-12

The comment does not address the adequacy or content of the DEIR. Notwithstanding, however, the following is provided for informational purposes. See Chapter 2 *State Water Project* of the DEIR for a description of Contract water service provisions. See Chapter 4 *Project Description* for the description of the proposed project evaluated in the DEIR. See also Master Response 2: Definition of the Proposed Project for further description of the proposed project.

Response to Comment 15-13

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-14

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-15

The comment does not present issues regarding the adequacy of the environmental impact analysis. Notwithstanding, as disclosed in Chapter 8 *Climate Change and Resiliency* of the DEIR, operation of the SWP could be affected by features of climate change that include changes in temperature, precipitation, humidity and hydrology. However, given the size of the watersheds in the study area and the ability to convey water within the SWP, even a substantial increase or decrease in precipitation will likely be able to be handled through SWP operations. Greater water management of Table A and Article 21 water would allow the PWAs to respond to the potential effects of climate change because the proposed project facilitates additional flexibility in transferring/ exchanging Table A and Article 21 water to other PWAs depending on the water year and availably of water.

As indicated by the May 2019 AIP, section 3.2.4, future proposed transfers and exchanges shall comply with all applicable laws and regulations.

Response to Comment 15-16

See Chapter 4 *Project Description* for the description of the proposed project evaluated in the DEIR. See also Master Response 2: Definition of the Proposed Project for description of the adequacy of the description of the proposed project for use in the DEIR analysis.

Response to Comment 15-17

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-18

See Chapter 4 *Project Description* for the description of the proposed project evaluated in the DEIR. The transfer of non-project water is not part of the proposed project. See also Master Response 2: Definition of the Proposed Project for description of the adequacy of the description of the proposed project for use in the DEIR analysis.

Response to Comment 15-19

As described in Chapter 4 *Project Description* of the DEIR, the proposed project would amend Contract provisions to allow the PWAs to enter into water transfers subject to DWR's approval. The proposed project would not include transfer or exchange of non-SWP water. See also Master Response 2: Definition of the Proposed Project for description of the adequacy of the description of the proposed project for use in the DEIR analysis.

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-20

The comment does not present issues regarding the adequacy of the environmental impact analysis. Regarding changes to the project, please see Response to Comment 15-4.

Response to Comment 15-21

The objectives for the proposed project are presented in Chapter 4 *Project Description* of the DEIR. As stated in Chapter 4, DWR and the PWAs have a common interest to ensure the efficient delivery of SWP water supplies and to ensure the SWP's financial integrity. In order to address water management flexibility DWR and the PWAs agreed to the following objectives:

- Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area.

As described in Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-22

See Response to Comment 15-21.

Response to Comment 15-23

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-24

As described in Master Response 2: Definition of the Proposed Project and in Chapter 4 *Project Description* of the DEIR, the proposed project would not change any of the PWA's Annual Table A amounts. The proposed project would also not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements. Therefore, DWR is not changing its operations under the Contracts; DWR pumps water from the Delta in compliance with all State and federal environmental laws and regulations and pursuant to its water right permits (see Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*). Furthermore, the proposed transfers and exchanges between PWAs have been and would continue to be subject to DWR's approval.

The potential for land fallowing as a result of the proposed project is evaluated in DEIR Chapter 5 *Environmental Analysis*, Section 5.3 *Agricultural and Forest Resources*.

As described in Master Response 3: Program versus Project Level Analysis and in Section 5.1 *Method of Analysis* of the DEIR, and in the technical resource sections of Chapter 5 *Environmental Analysis*, portions of the proposed amendments (amendments related to water transfers and water exchanges) may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs that could result in changes to the physical environment. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR (both project and cumulative) is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once proposals for specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

Response to Comment 15-25

For discussion of air emission impacts associated with land fallowing or changes in cropping patterns attributed to the proposed project, see Chapter 5 *Environmental Analysis*, Section 5.4 *Air Quality*.

As described in Master Response 3: Program versus Project Level Analysis, because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR (both project and cumulative) is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once proposals for specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

See also Response to Comment 15-24.

Response to Comment 15-26

As stated in Chapter 4 *Project Description* of the DEIR, the proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts. See also Master Response 2: Definition of the Proposed Project for further discussion of the proposed project evaluated in the DEIR.

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-27

As described in Section 5.10 *Groundwater Hydrology and Water Quality* of the DEIR, the impact conclusion is based on the potential for transfers and exchanges from agricultural to M&I PWAs to result in increased groundwater pumping that could lead to a net deficit in aquifer volume or the lowering of local groundwater in some areas of the study area. DWR's conclusion that the impact is potentially significant is based on a program-level analysis, as there is uncertainty in the amount of groundwater use that may occur, and the lack of DWR's authority to provide any necessary mitigation even though PWAs may provide this information and mitigation in their project-level analysis for exchanges and transfers. Because the extent, location, and implementation timing of groundwater pumping associated with changes in transfers and exchanges implemented by PWAs are not known, it is concluded that the potential increase in groundwater pumping could result in a net deficit in aquifer volume or lowering the local groundwater table, and these impacts would be potentially significant. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

See also Master Response 3: Program versus Project Level Analysis.

Response to Comment 15-28

As described in Master Response 2: Definition of the Proposed Project and in Chapter 4 *Project Description* of the DEIR, the proposed project would not change any of the PWA's Annual Table A amounts. The proposed project would also not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements, including water quality. Therefore, DWR is not changing its operations under the Contracts; DWR pumps water from the Delta in compliance with all State and federal environmental laws and regulations and pursuant to its water right permits (see Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*).

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under

CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 15-29

As described in Master Response 3: Program versus Project Level Analysis and in Section 5.1 *Method of Analysis* of the DEIR, and in the technical resource sections of Chapter 5 *Environmental Analysis*, and in Chapter 6 *Other CEQA Considerations*, Section 6.1 *Cumulative Impacts*, portions of the proposed amendments (amendments related to water transfers and water exchanges) may result in changes to the frequency and timing of Table A water and/or Article 21 water supply moving among the PWAs that could result in changes to the physical environment. Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR (both project and cumulative) is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments. Once specific transfers and exchanges among the PWAs are proposed as a result of the proposed amendments, the PWAs will comply with the appropriate project-level CEQA documentation.

Response to Comment 15-30

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

As it relates to growth inducement, growth inducing effects of implementation of the proposed project are evaluated in Chapter 6 *Other CEQA Considerations* (Section 6.4 *Growth-Inducing Impact*) of the DEIR. As described in Section 6.4, the proposed transfer and exchange provisions would provide the PWAs with increased flexibility for short-term and long-term planning of their SWP water supplies. More frequent transfer and exchange of Table A and Article 21 water would increase the reliability of SWP supplies for M&I PWAs that could support additional population in jurisdictions within the M&I PWA service areas. However, while with the proposed amendments transfers and exchanges could be more frequent and longer in duration, they would not be a permanent transfer of a PWAs Annual Table A amounts; therefore, it would not represent a viable long-term source of urban water supply to support additional unplanned growth. Therefore, the proposed amendments would not result in additional water supply that could support growth over what is currently planned for in those jurisdictions and the proposed project would not result in indirect growth inducement. As further explained, approval or denial of development proposals is the responsibility of

the cities and counties in the study area and not DWR. Cities and counties are also responsible for considering the environmental effects of their growth and land use planning decisions (including, but not limited to, conversion of agricultural land to urban uses, loss of sensitive habitats, and increases in criteria air emissions). As new developments are proposed, or general plans adopted, local jurisdictions prepare environmental compliance documents to analyze the impacts associated with development in their jurisdiction pursuant to CEQA. The impacts of growth would be analyzed in detail in general plan EIRs and in project-level CEQA compliance documents. Mitigation measures for identified significant impacts would be the responsibility of the local jurisdictions in which the growth would occur. If identified impacts could not be mitigated to a level below the established thresholds, then the local jurisdiction would need to adopt overriding considerations.

Response to Comment 15-31

Regarding changes to the project, please see Response to Comment 15-4. As described in Chapter 7 *Alternatives* of the DEIR, the analysis of Alternative 2 concluded that it would not meet some of the objectives of the project, but to a lesser degree because it would cause a reduction in delivery of Annual Table A amounts proportional for all PWAs and would not provide greater water management regarding transfers and exchanges. In addition, impacts under Alternative 2 would be similar but greater when compared to the proposed project. Alternative 2 could result in new potentially significant impacts associated with the construction and operation of new water supply facilities that were not identified for the proposed project. In addition, if alternative sources of water are not available, then the less than significant impacts identified for the proposed project could be potentially significant.

For a discussion on the development, screening, and range of alternatives considered for the proposed project see Master Response 4: Range of Alternatives.

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Response to Comment 16-1

No public comments were provided at the November 16, 2018 public meeting.

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Response to Comment 17-1

Introductory comment. No response required.

Response to Comment 17-2

As described in Chapter 1 *Introduction* of the FEIR, the public comment for the State Water Project Water Supply Contract Amendments for Water Management and California Waterfix Draft Environmental Impact Report (2018 DEIR), State Clearinghouse Number 2018072033, was extended so that those who were affected by the Camp Fire had additional time to review and comment. The total comment period was 76 days from October 26, 2018 to January 9, 2019.

Response to Comment 17-3

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

Response to Comment 17- 4

The comment does not present issues regarding the adequacy of the environmental impact analysis. See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required. See also Master Response 2: Definition of the Proposed Project for discussion of relationship with Contract Extension Project.

See also Master Response 5: Relationship to other Plans, Projects, and Regulatory Compliance.

Response to Comment 17- 5

See Master Response 1: Changes in Proposed Project Since Publication of the 2018 DEIR, because California WaterFix has been set aside, it is no longer a project under CEQA. Therefore, comments that address the relationship between the proposed project and California WaterFix are no longer relevant and no further response is required.

Response to Comment 17-6

See Response to Comment 17-2.

Response to Comment 17-7

See Response to Comment 17-3. See also responses to Letter 3 and Letter 12.

Response to Comment 17-8

See Response to Comment 17-3.

As the lead agency under CEQA, DWR will make a decision regarding approval of the proposed amendments. As described in Chapter 1 *Introduction* of the DEIR, the PWAs are responsible agencies who may use this EIR to meet their CEQA requirements in their discretionary approval process for approving the proposed amendments. Proposed transfers are currently, and would continue to be with implementation of the proposed amendments, to be considered on a case by case basis subject to DWR approval. As described in Section 5.1 *Method of Analysis* of the DEIR, once proposals for specific transfers (and exchanges) among PWAs are proposed, the PWAs will comply with the appropriate project-level of CEQA documentation that would assess any physical changes to the environment. Therefore, transfers and exchanges are not now nor would they be in the future exempt for being implemented consistent with all applicable regulatory requirements.

Response to Comment 17-9

See Response to Comment 17-3.

Response to Comment 17-10

The comment does not address the adequacy or content of the DEIR; therefore, no further response is required

Response to Comment 17-11

See Response to Comment 17-5.

Response to Comment 18-1

The comment provides a summary of the proposed project and does not present issues regarding the adequacy of the environmental impact analysis.

The comment is correct that the proposed project would add, delete, and modify provisions of the Contracts and clarify certain terms of the Contracts that will provide greater water management regarding transfers and exchanges of the SWP water within the SWP service area consistent with applicable laws, contractual obligations, and agreements. The proposed project would not build new or modify existing SWP facilities nor change any of the PWA's Annual Table A amounts. The proposed project would not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with current Contract terms and all regulatory requirements.

The determination that a proposed activity meets the definition of a "covered action" is the responsibility of the state or local agency undertaking the proposed activity. (Cal. Code Regs., tit. 23, §5001, subd. (j)(3).) DWR has made a good faith determination that the proposed project is not a "covered action." The proposed project is a framework under which PWAs can propose transfers and exchanges, but does not approve any actual proposed transfers or exchanges. As described in the May 2019 AIP (included as Appendix A to the DEIR), subject to review and approval by DWR, there are basic criteria that any proposed transfer or exchange must meet before it can occur, including but not limited to:

- AIP 3.2.3 Transfers and exchanges must not create significant adverse impacts in a PWA service area.
- AIP 3.2.4 Transfers and exchanges shall comply with all applicable laws and regulations.
- AIP 3.2.5 Transfers and exchanges shall be scheduled only if they do not impact normal SWP operations.

It is the expectation of DWR that for any proposed future water transfers or exchanges that qualify as a "covered action," a certification of consistency with the Delta Plan for that proposal will be filed with the Delta Stewardship Council (Council) accordingly.

Response to Comment 18-2

The comment does not present issues regarding the adequacy of the environmental impact analysis. As discussed in Response to Comment 18-1, Transfers and exchanges must comply with all applicable laws and regulations, including the Delta Plan, before they will be approved by DWR.

Response to Comment 18-3

The potential groundwater subsidence impacts due to increased pumping of groundwater in lieu of surface water supplies addressed by the DEIR are expected to occur only in areas where agricultural PWAs operate (see page 5.10-23 of the 2020 Partially Recirculated DEIR). These agricultural PWAs are listed in Table 2-5 on page 2-19 of the 2020 Partially Recirculated DEIR.

Any groundwater pumped by agricultural PWAs is expected to be located in groundwater basins that have no hydrostatic connection to groundwater aquifers in the Delta. Because the groundwater basins which agricultural PWA's utilize have no hydrostatic connection to the Delta, any transfers or exchanges of surface water supply from agricultural PWAs to M&I PWAs that could potentially cause agricultural PWAs to use substitute groundwater would have no significant adverse impact on the Delta. As such, no significant adverse environmental impacts would occur within the Delta as a result of the proposed project. Thus, according to Delta Plan Appendix G, the proposed project complies with WR P1 and no further action is required (Delta Plan, Appendix G p. G-3).

Furthermore, the Delta has groundwater subsidence protection in the form of Water Code section 1220. Water Code section 1220 prohibits pumping of groundwater for export from within the Sacramento and Delta-Centra Sierra Basins unless the pumping is in compliance with a groundwater management plan. See page 5.10-12 of the 2020 Partially Recirculated DEIR.

Although at present DWR has characterized the effect of the SGMA on potential groundwater subsidence impacts from transfers and exchanges under the proposed project as speculative -- due to the law only recently coming into formation and the full effect of SGMA not expected for several decades -- SGMA will further strengthen protection of natural underground aquifers, prevent further overdraft of groundwater, and prevent further groundwater-related subsidence. When full implementation of SGMA is achieved, it is anticipated that transfers and exchanges under the proposed project would not cause impacts to the groundwater table in areas that are managed under SGMA. See page 5.10-23 to 5.10-24 of the 2020 Partially Recirculated DEIR.

Groundwater is distinct from imported surface water supplies stored in groundwater storage programs. This stored imported water, either through the existing water supply contracts or through the proposed amendments, could help mitigate, rather than exacerbate, groundwater subsidence impacts by means of groundwater basin recharge. See page 5.10-19 of the 2020 Partially Recirculated DEIR.

When PWAs engage in specific transfers and exchanges under the proposed amendments, any necessary project-level CEQA document will be required to comply with all federal, state, and local groundwater protection laws and regulations. See pages 5.10-11 through 5.10-15 of the 2020 Partially Recirculated DEIR. See also the May 2019 AIP section 4.1.1-4.1.5.

It is the expectation of DWR that for any proposed future water transfers or exchanges that qualify as a "covered action," a certification of consistency with the Delta Plan will be filed with the Council for the proposed transfer or exchange demonstrating consistency with applicable Delta Plan policies, such as WR P1.

Response to Comment 18-4

The comment does not present issues regarding the adequacy of the environmental impact analysis. As discussed in Response to Comment 18-1, Transfers and exchanges must comply with all applicable laws and regulations, including the Delta Plan, before they will be approved by DWR.

As stated above, it is the expectation of DWR that for any proposed future water transfers or exchanges that qualify as a "covered action," a certification of consistency with the Delta Plan for that proposal will be filed with the Council accordingly.

Response to Comment 18-5

The comment does not present issues regarding the adequacy of the environmental impact analysis. As discussed in Response to Comment 18-1, Transfers and exchanges must comply with all applicable laws and regulations, including the Delta Plan, before they will be approved by DWR.

As stated above, it is the expectation of DWR that for any proposed future water transfers or exchanges that qualify as a "covered action," a certification of consistency with the Delta Plan for that proposal will be filed with the Council accordingly.

Response to Comment 18-6

The comment does not present issues regarding the adequacy of the environmental impact analysis. DWR is bound by the Monterey Settlement Agreement and has conducted the negotiations related to the AIP accordingly.

Additionally, the May 2019 AIP Section 4 "PWA Due Diligence" describes the documentation and notice requirements for future proposed transfers and exchanges requested under the proposed project:

- 4.1 Each PWA participating in an exchange or transfer shall confirm the following in a resolution or other appropriate document approving the transfer or exchange, including the use of stored water/carryover water, if applicable, provided to DWR as follows:
    - 4.1.1 That the PWA has complied with all applicable laws for this transfer/ exchange and shall specify the notices that were provided to the public agencies and the public regarding the proposed transfer or exchange.
    - 4.1.2. That the relevant terms of the transfer/exchange have been provided to all State Water Project PWAs and the SWC Water Transfer Committee.
    - 4.1.3. That the PWA is informed and believes that this transfer/exchange will not harm other SWP PWAs, or impact SWP operations.
    - 4.1.4. That the PWA is informed and believes that the transfer/exchange will not affect its ability to make all payments, including payments for its share of the financing costs of DWR's Central Valley Project Revenue Bonds, when due, under its water supply contract.
    - 4.1.5. That the PWA has considered the potential impacts of the transfer/ exchange within the PWA's service area.
- 4.2. Add language to the contract that requires PWAs parties to an exchange or transfer to publicly post and provide information to non-party PWAs.

The PWAs and DWR agree that DWR will send a Notice to Contractors to outline the following process related to transparency for transfers and exchanges:

At the time the PWA parties submit the Contract Information Form to DWR, they will provide the Contract Information Form to the non-party PWAs. During the time period beginning with the PWA parties submitting the Contract Information Form to DWR and the time before there is a final agreement with DWR for storage or conveyance, the PWA parties will publicly post information regarding the transfer or exchange. If applicable, the PWA parties will request the State Water Contractor Board to support the water transfer. If the State Water Contractor board votes to support the transfer or exchange, the General Manager will send a letter of support to DWR and to the non-party PWAs. Once a storage or conveyance agreement is completed it will be provided to the non-party PWAs.

Response to Comment 18-7

The comment does not present issues regarding the adequacy of the environmental impact analysis. The proposed project supports the achievement of the co-equal goals. As acknowledged by the Delta Plan, water transfers "can be an important tool for improving water supply reliability." (The Delta Plan as Amended in 2018, Chapter 3, at p. 91.). Additionally, as noted in other responses and May 2019 AIP Section 3.2.4, "transfers and exchanges shall comply with all applicable laws and regulations."

DWR encourages and incentivizes water conservation and improved water management through grant funding and by providing technical assistance. DWR is also involved in several statewide water conservation and water management programs including urban and agricultural water management plans, the water conservation provisions of SBx7-7, SB 555 (2015), 2018 water conservation legislation SB 606, and AB 1668. DWR supports and encourages water use efficiency by utilizing conservation tools and understands it can provide more flexibility for water users, better management of water resources, and satisfy current and future demand under existing export levels.

Response to Comment 18-8

DWR thanks Council staff for their offer and will continue to seek guidance as appropriate.

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Response to Comment 19-1

The comment is noted.

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Response to Comment 20-1

This comment noted.

Response to Comment 20-2

The comment is noted. The information in Table 2-5 of Chapter 2 *State Water Project* of the DEIR, is to provide background information.

Response to Comment 20-3

As described in Chapter 4 *Project Description* (subsection 4.5 *Required Permits and Approvals*) of the DEIR, operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, endangered species protection, and other State and federal laws. DWR would continue to maintain and operate the SWP and deliver total available supplies to the PWAs consistent with the Contract terms and all regulatory requirements.

As described in Section 5.1 *Method of Analysis* of the DEIR, once proposals for specific transfers (and exchanges) among PWAs are proposed, the PWAs will comply with the appropriate project-level CEQA documentation that would assess any physical changes to the environment. This would include obtaining any required permits and/or approvals.

Response to Comment 20-4

As described in Section 5.10 *Groundwater Hydrology and Water Quality* of the DEIR, the analysis of potential impacts to groundwater resulting from the proposed project does note that it is possible that transfers and exchanges of SWP water among the PWAs could result in benefits to groundwater levels, as transferred or exchanged water could be used instead of groundwater supplies or used for groundwater recharge. However, the impact conclusion is based on the potential for transfers and exchanges from agricultural to M&I PWAs to result in increased groundwater pumping that could lead to a net deficit in aquifer volume or the lowering of local groundwater in some areas of the study area. The impact is determined to be potentially significant because there is uncertainty in the amount of groundwater that may result from transfers or exchanges, and the lack of DWR's authority to provide any necessary mitigation even though PWAs may provide this information and mitigation in their project-level analysis for exchanges and transfers. However, as noted in AIP 3.2.3, transfers and exchanges must not create significant adverse impacts within a transferring or exchanging PWA's service area.

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Appendix A
Comment Letters Received

Our Region's Trusted Water Leader
San Diego County Water Authority

December 7, 2018

Cassandra Enos-Nobriga
Executive Advisor, State Water Project
Department of Water Resources
P.O.Box 942836
Sacramento, CA 95814

RE: Draft Environmental Impact Report – State Water Project Water Supply Contract Amendments for Water Management and California WaterFix

Dear Ms. Enos-Nobriga:

The San Diego County Water Authority (Water Authority) appreciates the opportunity to comment on the Draft Environmental Impact Report – State Water Project (SWP) Water Supply Contract Amendments for Water Management and California WaterFix (WaterFix) prepared by the Department of Water Resources (DWR).

COMMENTS

1. General

It would be helpful to the reader if the project description included an explanation of how amendments to agreements and contracts, involving no construction of new facilities, would have a physical effect on the environment. The document buries this discussion in each analysis section, repeating the same language. We suggest this discussion be moved up front into the Project Description section.

The document references comments received during the Notice of Preparation in "Potential Areas of Controversy and Concern" section, and says they are addressed as follows:

> "General topics raised included: project segmentation issues; description of the project evaluated in the DEIR; consideration and analysis of reasonably foreseeable impacts of the project; the range of alternatives to be evaluated in the DEIR. Issues raised in response to the NOP are addressed in this EIR, as appropriate, for compliance with CEQA".

However, the document leaves the reader to figure out how and where individual topics are addressed. We request DWR explicitly describe in this section where these issues are addressed in the document.

1

2. Definition and Purpose of California WaterFix

As one of the largest member agencies of the Metropolitan Water District of Southern California (MWD), the Water Authority has a great interest, and could be unfairly impacted depending on how

2

WaterFix costs will be allocated among the SWP contractors and how those costs will be invoiced by DWR.

A key objective of the contract amendments for WaterFix, as identified in the Draft EIR, is to "provide a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity." Under the existing SWP contracts, WaterFix would be categorized as "project conservation facilities,"[1] similar to the Peripheral Canal, and be billed as Delta Water Charge. Yet, the Agreement in Principle (Appendix A) for SWP WaterFix amendments, ***without any explanation***, changes the legal and previously agreed-upon methodology that defines WaterFix as a Delta Water Charge for conservation, by stating that the purpose of California WaterFix facilities is "water conservation ***and/or transportation***," even though the function and purpose of the project have not changed.

The rate impacts on an average household in the Water Authority's service area could range from less than $1 to $15-$23 per month when the project is fully implemented, depending on how WaterFix costs are allocated. If allocated to transportation, the Water Authority could be forced to pay more than any state contractor or MWD member agency, solely as a result of its use of MWD's Colorado River aqueduct to wheel water. The Water Authority's Board of Directors has expressly conditioned its support of WaterFix on the allocation of project costs in a manner consistent with the existing SWP contract as a Delta Water Charge supply cost.

2 (cont.)

To ensure the contract amendments for WaterFix meet its objective to provide a lawful, fair and equitable cost allocation, we request DWR strike the reference to transportation CWF Facilities Charge Component (AIP – II.3), as shown below.

- "The purpose of the CWF Facilities is water conservation ~~and/or transportation~~."

We raised this concern with Director Karla Nemeth in June of last year (see attached letter), and incorporate our comments by reference.

Sincerely,

Maureen A. Stapleton
General Manager

Attachment: Water Authority's comment letter to Karla Nemeth dated June 11, 2018

[1] As defined in Article 1(f) and (g)(2), based on Water Code Section 12934(d)(3), serving the purposes of water conservation in the Delta, water supply in the Delta and transfer of water across the Delta. (emphasis added)

Our Region's Trusted Water Leader
San Diego County Water Authority

June 11, 2018

Karla Nemeth, Director
Department of Water Resources
1416 9th Street
Sacramento, CA 95814

RE: Amendment of State Water Project Contract for California WaterFix
Comments on State Water Contractors May 14, 2018 Talking Points (#SWCCWF-0038) and DWR's May 29, 2018 Consolidated Talking Points (#00086)

Dear Ms. Nemeth,

One of the key objectives and desired outcomes for negotiating an agreement between the Department of Water Resources (DWR) and the State Water Project (SWP) contractors is to amend the existing Water Supply Contract with DWR to implement California (CA) WaterFix in a manner that equitably allocates costs and benefits of the project (see DWR Objectives for SWP Contract Amendment, Objective 1; see also SWC Submission #SWCCWF-0001). I write to you on behalf of the San Diego County Water Authority Board of Directors to formally advise you of specific facts and circumstances concerning Water Authority ratepayers in regard to this objective, and to request your assistance to ensure that our ratepayers are not unfairly disadvantaged as result of the CA WaterFix negotiations.

As you know, under the existing Water Supply Contract, costs to the contractors are made up of two major charges: 1) the Delta Water Charge (which is a supply charge); and 2) the Transportation Charge. The Delta Water Charge is the cost of conservation facilities which include the Oroville facilities, the Delta facilities, the San Luis facilities, and a portion of the aqueduct leading from the San Luis facilities to the Delta facilities. Most importantly, the Delta Water Charge was to include within it facilities for the "transfer of water across the Delta," such as the proposed WaterFix (see below). It is a unit charge applied to each acre-foot of SWP water that SWP contractors are to receive, in accordance with their contracts. In contrast, the Transportation Charge covers the use of facilities required to deliver SWP water to the service area of each SWP water contractor. 3

Under the existing SWP contract, the CA WaterFix would unquestionably be categorized as "project conservation facilities" as defined in Article 1(f) and (g)(2), based on Water Code § 12934(d)(3), serving the purposes of water conservation in the Delta, water supply in the Delta, and transfer of water across the Delta. The CA WaterFix costs would thus constitute a Delta Water Charge under the current agreement and law. Similarly, DWR's Bulletin 132 categorizes Peripheral Canal facilities -- the forerunner of CA WaterFix -- as conservation facilities, with costs generally allocated accordingly. In unexplained contrast to Water Code § 12934(d)(3), the existing SWP contract, and DWR Bulletin 132, the draft Statement of Principles abruptly, and without explanation, changes the legal and agreed-upon methodology that would define the CA WaterFix as a Delta Water Charge for conservation, *now adding transportation*: "[t]he purpose of the [CA WaterFix] Facilities is water conservation ***and/or*** transportation." While this statement, and any corresponding charges as "transportation," may have no relevance to the cost share borne by other contractors or their member agency customers, it potentially has a substantial and grossly unfair impact on Water Authority ratepayers.

DWR is no doubt well aware of the appellate decision *San Diego County Water Authority v. Metropolitan Water District of Southern California* 12 Cal. App. 5th 1124 (2017), in which the Court of Appeal applied terms of the DWR-MWD contract to allow MWD to bill transportation costs identified in the existing SWP

contract to the Water Authority's Exchange Agreement payments. Conversely, the Delta Water Charge costs were not billed as transportation and there is no legal or substantive basis for changing that now in the allocation of CA WaterFix costs.

MWD has widely published to San Diego ratepayers that the cost of CA WaterFix is estimated to be $3.90 per month, and in any case no more than the $5 per household per month that has been estimated for the rest of the MWD service territory (all stated in 2017 dollars). And yet, if WaterFix costs are charged to transportation (now or in the future), the estimated cost per San Diego household skyrockets to $15-23 per month or more when the project is fully implemented. All of these numbers are estimates, but it gives you an idea of the different impacts depending on whether costs are allocated to transportation or supply. Thus, this is not an insignificant issue, but rather one that presents a material and uniquely unfair potential cost impact and future risk for San Diego County ratepayers.

3 (cont.)

We request that the sentence quoted from the Statement of Principles be stricken, and that it be made clear that the CA WaterFix costs are intended to be allocated in a manner that is consistent with the existing SWP contract and Water Code § 12934(d)(3) as a Delta Water Charge supply cost.

We would welcome the opportunity to meet with you to provide further information if that would be helpful. The Water Authority's Board of Directors will be meeting in the near future to adopt a formal position on the CA WaterFix and I know this issue is of critical importance.

Thank you for your cooperation and understanding of the importance of this issue.

Very truly yours,

Mark Muir, Chairman of the Board of Directors

Attachment 1: DWR SWP Contract Amendment for California Water Fix – Objective 1
Attachment 2: SWC Submission SWCCWF-0038
Attachment 3: Water Code 12934
Attachment 4: Table 2, Appendix B to Bulletin 132-17

cc: Governor Jerry Brown
Senate President pro Tem Toni Atkins
San Diego Legislative Delegation
Water Authority Board of Directors
Maureen A. Stapleton, General Manager
MWD Board of Directors
Jeff Kightlinger, MWD General Manager

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **EDMUND G. BROWN JR.,** *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

SWP CONTRACT AMENDMENT FOR CALIFORNIA WATERFIX

Department of Water Resources' Objectives

WaterFix and Water Management Actions:

Objective 1: The California Department of Water Resources will ensure that the terms and conditions for the proposed Contract Amendments allow for the continued financial integrity of the State Water Project (SWP). The terms and conditions will: 1) be made in compliance with all legal requirements, 2) provide a fair and equitable approach for repayment of SWP Contractor costs to address the addition of the California WaterFix facilities to the SWP, and 3) confirm and supplement DWR's position on water management actions available to the State Water Project Contractors under the contracts.

4

SWC Submission #: **SWCCWF-0038**
STATE WATER CONTRACTORS
1121 L Street, Suite 1050,
Sacramento, CA 95814-3944
(916) 447-7357 | www.swc.org

DATE: May 14, 2018

SUBJECT: The State Water Project[1] (SWP) Public Water Agencies' (PWAs)[2] Talking Points for Objective Two Concerning the Allocation and Repayment of Costs Associated with California WaterFix (CWF).

These talking points provide a proposed Statement of Principles (Principles) for the allocation and repayment of costs for construction, operation and maintenance of facilities associated with CWF (CWF Facilities). Under these Principles, the State, acting by and through the California Department of Water Resources (DWR), would be fully reimbursed for all such costs. These costs would be billed to and collected from SWP PWAs participating in the SWP portion of CWF (Participating PWAs), except those situated north of the Delta[3] (Non-Participating PWAs), through their annual Statement of Charges (SOC). The SWP portion of CWF is up to two-thirds of CWF Facilities costs. The amount remaining will be reimbursed separately from SWP and/or Central Valley Project PWAs interested in additional conveyance capacity in CWF Facilities. These Principles are intended to serve as the foundation for a contract amendment to the existing long-term water service contracts (Contracts) between DWR and the SWP PWAs.

STATEMENT OF PRINCIPLES

1. **CWF Facilities Definition:** CWF Facilities shall mean those facilities that are constructed to convey water from the north Delta to the south Delta through facilities as described in the California WaterFix Final EIR/EIS SCH #2008032062. In general, CWF Facilities will divert water from the Sacramento River through three intakes on the east bank of the Sacramento

[1] The State Water Project is the name commonly used to refer to the State Water Resources Development System (Water Code Section 12931).

[2] The SWP PWAs are those public water agencies that hold contracts with DWR for the delivery of SWP water: Alameda County Flood Control and Water Conservation District (Zone 7), Alameda County Water District, Antelope Valley-East Kern Water Agency, Castaic Lake Water Agency, City of Yuba City, Coachella Valley Water District, County of Butte, County of Kings, Crestline-Lake Arrowhead Water Agency, Desert Water Agency, Dudley Ridge Water District, Empire West Side Irrigation District, Kern County Water Agency, Littlerock Creek Irrigation District, The Metropolitan Water District of Southern California, Mojave Water Agency, Napa County Flood Control and Water Conservation District, Oak Flat Water District, Palmdale Water District, Plumas County Flood Control and Water Conservation District, San Bernardino Valley Municipal Water District, San Gabriel Valley Municipal Water District, San Gorgonio Pass Water Agency, San Luis Obispo County Flood Control and Water Conservation District, Santa Barbara County Flood Control and Water Conservation District, Santa Clara Valley Water District, Solano County Water Agency, Tulare Lake Basin Water Storage District, and Ventura County Flood Control District.

[3] These Non-Participating PWAs are.: City of Yuba City, County of Butte, Plumas County Flood Control and Water Conservation District, Napa County Flood Control and Water Conservation District, and Solano County Water Agency.

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River, through pipelines and tunnels to the south Delta, to new pumping plants northeast of a reconfigured Clifton Court Forebay, and finally to connections with the Jones and Banks pumping plants.

2. **CWF Facilities Charge Components** - The purpose of the CWF Facilities is water conservation and/or transportation. Accordingly, all capital and minimum operations, maintenance, power and replacement (OMP&R) costs associated with the CWF Facilities are 100% reimbursable and shall be recovered by the DWR from Participating PWAs through their annual SOCs. These costs shall be allocated to and billed under two new charges as follows:

    a. CWF Facilities Capital Charge Component
    b. CWF Facilities Minimum OMP&R Component

3. **CWF Capital Charge Component Method of Computation**

    a. Recover actual annual debt service created by financing activities (Financing Method) for CWF Facilities.
    b. Each Financing Method shall provide an annual repayment schedule, which includes all Financing Costs.
    c. Financing Costs shall mean the following:
        i. Principal of and interest on Revenue Bonds,
        ii. Debt service coverage required by the applicable bond resolution or indenture in relation to such principal and interest,
        iii. Deposits to reserves required by the bond resolution or indenture in relation to such Revenue Bonds, and
        iv. Premiums for insurance or other security obtained in relation to such Revenue Bonds.
    d. Financing Method shall be divided into four categories:
        i. CWF Facilities Capital Costs paid with the proceeds of Water System Facility Revenue Bonds,
        ii. CWF Facilities Capital Costs paid with amounts in the State Water Resources Development System Reinvestment Account,
        iii. CWF Facilities Capital Costs paid annually for assets that will have a short Economic Useful Life or the costs of which are not substantial, and
        iv. CWF Facilities Capital Costs prepaid by the Participating PWAs.
    e. CWF Facilities Capital Charge Component should be allocated to the Participating PWAs in proportion to the CWF Facilities Allocation Factors for each calendar year.

4. **CWF Facilities Minimum OMP&R Charge Component Method of Computation**

    a. Recovery estimated and/or actual annual OMP&R costs for the CWF Facilities each year.

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b. CWF Facilities Minimum OMP&R Charge Component shall be allocated to the Participating PWAs in proportion to the CWF Facilities Allocation Factors for each calendar year.

5. **CWF Facilities Variable OMP&R Charge Component Method of Computation -** The operations, maintenance, power and replacement costs for the CWF facilities pumping plants (CWF Pumping Plants) that are (1) necessary to deliver water to a Participating PWA and (2) incurred in an amount which is dependent upon and varies with the amount of project water delivered to the PWA and allocated to the PWA pursuant to Article 26 (a)(1) and (2) of the Contracts. The CWF Facilities Variable OMP&R costs are 100% reimbursable and shall be recovered by DWR from the Participating PWAs through their annual SOCs as follows:

   a. Costs shall be included in the Participating PWAs Variable Charge
   b. Costs shall not be included in the Non-Participating PWAs' Variable Charge.
      i. The Non-Participating PWAs' shall not be charged for any direct costs of conveying water through CWF Pumping Plants.
      ii. The unit rate for the CWF Pumping Plants shall not be included in the Non-Participating PWAs accumulated pumping plant rates used to calculate their Transportation Variable Component Charge.

6. **CWF Facilities Allocation Factors**. The following table is a preliminary allocation of CWF Facilities participation percentages for the Non-Participating PWAs and the Participating PWAs. Only Participating PWAs would be billed for CWF through their annual SOC, using the CWF Facility Allocation Factors described in the table. Non-Participating PWAs would not be billed for repayment of costs for construction, operation and maintenance of facilities associated with CWF, except to the extent there is a permanent transfer of Table A from a Participating PWA to a Non-Participating PWA as set forth in principle 10.

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Non-Participating PWA	CWF Facilities Allocation Factors
City of Yuba City	0.0000%
County of Butte	0.0000%
Plumas County FC&WCD	0.0000%
Napa County FC&WCD	0.0000%
Solano County Water Agency	0.0000%
Participating PWA	**CWF Facilities Allocation Factors**
Alameda County FC&WCD, Zone 7	1.9875%
Alameda County Water District	1.0355%
Santa Clara Valley Water District	2.4654%
Dudley Ridge Water District	1.0194%
Empire-West Side Irrigation District	0.0740%
Kern County Water Agency-Total	24.2278%
County of Kings	0.2294%
Oak Flat Water District	0.1405%
Tulare Lake Basin Water Storage District	2.1565%
San Luis Obispo County FC&WCD	0.6163%
Santa Barbara County FC&WCD	1.1214%
Antelope Valley-East Kern Water Agency	3.5709%
Santa Clarita Valley Water Agency	2.3470%
Coachella Valley Water District	3.4108%
Crestline-Lake Arrowhead Water Agency	0.1430%
Desert Water Agency	1.3744%
Littlerock Creek Irrigation District	0.0567%
Mojave Water Agency	2.2139%
Palmdale Water District	0.5251%
San Bernardino Valley Municipal Water District	2.5295%
San Gabriel Valley Municipal Water District	0.7100%
San Gorgonio Pass Water Agency	0.4265%
The Metropolitan Water District of Southern California	47.1253%
Ventura County Watershed Protection District	0.4931%
Total	**100.000%**

7. **Repayment Schedule Table** - The amount to be paid by the Participating PWAs for each year under the CWF Facilities Capital and Minimum OMP&R Charge Components shall be set forth in a Repayment Schedule Table.

8. **Charge Redetermination** - The CWF Facilities Capital and Minimum OMP&R Charge Components shall be subject to Charge Redetermination.

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9. **Annual Statement of Charges** - The CWF Facilities Capital and Minimum OMP&R Charge Components shall be included in a separate invoice that is included in the annual SOC and shall be subject to the time and method of payment for Capital and Minimum OMP&R Components.

10. **Permanent Transfer of Contract Rights** – Any permanent transfer of Table A contract rights of a Participating PWA shall be accompanied by a pro-rata transfer of that PWAs rights and responsibilities with respect to CWF.

11. **CWF Facilities Use Of Facilities Charge** –If a Non-Participating PWA transfers allocated Table A to a Participating PWA, then no fee will be charged to the PWAs involved in the transaction. Other transactions may result in a fee sufficient to cover all (1) capital, (2) minimum operations, maintenance, power and replacement (OMP&R) costs, and (3) variable OMP&R costs, associated with this usage.

12. **Water Delivery Principles** - Participating PWAs moving water in excess of their CWF Facilities Allocation Factor shall schedule deliveries in a manner that does not harm other participating PWAs and shall be subject to the delivery priorities set forth in Article 12(f) of the Contract.

Cal Wat Code § 12934

Deering's California Codes are current through Chapter 10 of the 2018 Regular Session.

Deering's California Codes Annotated > WATER CODE > Division 6 Conservation, Development, and Utilization of State Water Resources > Part 6 Water Development Projects > Chapter 8 Water Resources Development Bonds

§ 12934. Definitions

As used in this chapter and for the purposes of this chapter as used in the State General Obligation Bond Law, the following words shall have the following meanings:

(a) "Committee" shall mean the California Water Resources Development Finance Committee created by *Section 12933*.

(b) "Board" or "department" shall mean the Department of Water Resources.

(c) "Fund" shall mean the California Water Resources Development Bond Fund created by *Section 12935*.

(d) "State Water Facilities" shall mean the following facilities:

(1) A multiple purpose dam and reservoir on the Feather River in the vicinity of Oroville, Butte County, and dams and reservoirs upstream therefrom in Plumas County in the vicinity of Frenchman, Grizzly Valley, Abbey Bridge, Dixie Refuge and Antelope Valley;

(2) An aqueduct system which will provide for the transportation of water from a point or points at or near the Sacramento-San Joaquin Delta to termini in the Counties of Marin, Alameda, Santa Clara, Santa Barbara, Los Angeles and Riverside, and for delivery of water both at such termini and at canal-side points en route, for service in Solano, Napa, Sonoma, Marin, Alameda, Contra Costa, Santa Clara, San Benito, Santa Cruz, Fresno, Tulare, Kings, Kern, Los Angeles, Ventura, San Bernardino, Riverside, Orange, San Diego, San Luis Obispo, Monterey and Santa Barbara Counties.

Said aqueduct system shall consist of intake and diversion works, conduits, tunnels, siphons, pipelines, dams, reservoirs, and pumping facilities, and shall be composed of a North Bay aqueduct extending to a terminal reservoir in Marin County; a South Bay aqueduct extending to terminal reservoirs in the Counties of Alameda and Santa Clara; a reservoir near Los Banos in Merced County; a Pacheco Pass Tunnel aqueduct from a reservoir near Los Banos in Merced County to a terminus in Pacheco Creek in Santa Clara County; a San Joaquin Valley-Southern California aqueduct extending to termini in the vicinity of Newhall, Los Angeles County, and Perris, Riverside County, and having a capacity of not less than 2,500 cubic feet per second at all points north of the northerly boundary of the County of Los Angeles in the Tehachapi Mountains in the vicinity of Quail Lake and a capacity of not less than 10,000 cubic feet per second at all points north of the initial offstream storage reservoir; a costal aqueduct beginning on the San Joaquin Valley-Southern California aqueduct in the vicinity of Avenal, Kings County, and extending to a terminal at the Santa Maria River;

(3) Master levees, control structures, channel improvements, and appurtenant facilities in the Sacramento-San Joaquin Delta for water conservation, water supply in the Delta, transfer of water across the Delta, flood and salinity control, and related functions.

(4) Facilities for removal of drainage water from the San Joaquin Valley.

(5) Facilities for the generation and transmission of electrical energy.

Mark Hattam

(6) Provision for water development facilities for local areas as provided in Chapter 5 (commencing at Section 12880) of Part 6 of Division 6 of the Water Code as the same may now or hereafter be amended.

(7) Including for the foregoing (1 through 5) the relocation of utilities and highways and acquisition of all lands, rights of way, easements, machinery, equipment, apparatus, and all appurtenances necessary or convenient therefor.

History

Added Stats 1959 ch 1762 § 1, effective November 8, 1960.

Annotations

Commentary

Legislative Counsel's Opinions:

State water resources development. 1963 AJ 1523.

Notes to Decisions

1. Generally

That Water Resources Development Bond Act lists Oroville dam as one of "State Water Facilities" enumerated in that act does not mean that Oroville dam is no longer authorized by Central Valley Project Act (Wat C §§ 11100 et seq.), which empowers Department of Water Resources to construct and operate various water facilities, including the Oroville dam; Water Resources Development Bond Act expressly continues, rather than precludes, operation of Central Valley Project Act, and nothing in former act shows that facility authorized as part of Central Valley Project is no longer to be so regarded where it is also enumerated as one of "State Water Facilities." Warne v. Harkness (Cal. Dec. 12, 1963), 60 Cal. 2d 579, 35 Cal. Rptr. 601, 387 P.2d 377, 1963 Cal. LEXIS 264.

Research References & Practice Aids

Cross References:

Inapplicability to timberland preserve zone: Gov C § 51153.

Treatises:

Cal. Legal Forms, (Matthew Bender) § 28D.15[3][a].

State Notes

Research References & Practice Aids

Cal Wat Code § 12934

Hierarchy Notes:

Cal Wat Code Div. 6

Cal Wat Code Div. 6, Pt. 6

Cal Wat Code Div. 6, Pt. 6, Ch. 8

End of Document

Table 2 Project Purpose Cost Allocation Factors (percentages)[a]

	Water Supply and Power Generation		All Other Purposes (Nonreimbursable)	
PROJECT FACILITIES	Capital Costs	Minimum OMP&R Costs	Capital Costs	Minimum OMP&R Costs
Project Conservation Facilities				
Frenchman Dam and Lake	21.5	0.0	78.5	100.0
Antelope Dam and Lake	0.0	0.0	100.0	100.0
Grizzly Valley Dam and Lake Davis	1.0	1.8	99.0	98.2
Oroville Division[b]	97.1	99.5	2.9	0.5
California Aqueduct, Delta to Dos Amigos Pumping Plant	96.6	96.7	3.4	3.3
Delta Facilities				
Peripheral Canal Related	86.0	86.0	14.0	14.0
Remaining of Delta Facilities	96.6	96.7	3.4	3.3
Transportation Facilities				
Grizzly Valley Pipeline	100.0	100.0	0.0	0.0
North Bay Aqueduct	100.0	100.0	0.0	0.0
South Bay Aqueduct				
Del Valle Dam and Lake del Valle	25.2	22.0	74.8[c]	78.0[d]
Remainder of South Bay Aqueduct	100.0	100.0	0.0	0.0
California Aqueduct				
Delta to Dos Amigos Pumping Plant	96.6	96.6	3.4	3.4
Dos Amigos Pumping Plant to termini (excluding Coastal Branch)[e,f]	94.3 / 99.6	96.9 / 99.6	5.7 / 0.4	3.1 / 0.4
Aqueduct and Plants[e,f]	94.3 / 99.6	96.9 / 99.6	5.7 / 0.4	3.1 / 0.4
Pyramid Dam and Lake[e,f]	94.3 / 96.1	96.9 / 96.1	5.7 / 3.9	3.1 / 3.9
Castaic Dam and Lake[e,f]	94.3 / 91.1	96.9 / 91.1	5.7 / 8.9	3.1 / 8.9
Silverwood Dam and Lake[e,f]	94.3 / 85.3	96.9 / 85.3	5.7 / 14.7	3.1 / 14.7
Perris Dam and Lake[e,f]	94.3 / 67.7	96.9 / 67.7	5.7 / 32.3	3.1 / 32.3
Coastal Branch	100.0	100.0	0.0	0.0

[a] Percentages indicated apply to the majority of the facilities with minor exceptions.
[b] Percentages indicated are applicable to the remaining costs of division after excluding costs allocated to flood control that are reimbursed by the federal government (22 percent of capital costs) and excluding specific power costs of Hyatt and Thermalito powerplants and switchyards.
[c] Percentage indicated consists of 48.0 percent of costs allocated to recreation and 26.8 percent to flood control.
[d] Percentage indicated consists of 44.9 percent of costs allocated to recreation and 33.1 percent to flood control.
[e] Percentage indicated is used for 2012 and previous years.
[f] Percentage indicated is used for 2013 and forward.

Amendment 5 to Metropolitan's contract requires that additional costs for modifications to the Santa Ana Pipeline (required for enlargement of Lake Perris) will be allocated to Metropolitan and returned to the State through payments of the Transportation Charge. The additional costs to be repaid through Metropolitan's capital cost component for the aqueduct reach from Devil Canyon Powerplant to Barton Road total about $6.7 million (see Bulletin 132-72, page 98).

Table B-10 presents the actual and projected annual capital costs of each aqueduct reach that will eventually be returned to the State, with interest, through contractors' payments of the capital cost component of the Transportation Charge and payment of debt service under the Devil Canyon-Castaic contracts.

PLUMAS COUNTY FLOOD CONTROL & CONSERVATION DISTRICT
c/o PLUMAS COUNTY DEPARTMENT OF PUBLIC WORKS
1834 East Main Street, Quincy, CA 95971 Telephone: (530) 283-6268
Jeff Engel, Chair, Governing Board
Robert A. Perreault, Jr., District Manager

December 18, 2018

To: Mr. Ted Alvarez, State Water Project, Analysis Office
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236.
By e-mail to: ted.alvarez@water.ca.gov and cwf_amendment@water.ca.gov

To: Cassandra Enos-Nobriga, Executive Advisor, State Water Project
Department of Water Resources
1416 Ninth Street, Room 1148-3
P.O. Box 942836
Sacramento CA 95814
By e-mail to: ContractAmendment_comments@water.ca.gov

RE: State Water Project
Water Supply Contract Amendments for Water Management and California WaterFix

Dear Mr. Ted Alvarez and Ms. Cassandra Enos-Nobriga:

Introduction and Background:

Plumas County Flood Control and Water Conservation District (Plumas) is one of 29 State Water Project Contractors, now called Public Water Agencies (PWAs).

Plumas has participated actively in the development of CEQA and the public negotiations among SWP PWAs leading to the Notice of Preparation (NOP) for both the Contract Extension Project (CEP) and the California Water Fix (CWF). Plumas has provided comments on the Draft Environmental Impact Reports (DEIRs) and also the Agreements In Principle (AIPs) for both the DEIR for the CEP and for the NOP for the CWF.

1

Plumas intends to sign the AIP for the CWF. Plumas supports the AIP for the CWF because it specifically exempts the North of Delta Public Water Agencies (PWAs), including Plumas, from all CWF costs (with the possible exception of blended power rates.) The AIP for the CWF also includes new water management tools to enable SWP PWAs downstream of DWR's Oroville Reservoir that sign both the SWP CEP AIP and the CWF AIP to better cope with the real potential for more unreliable water exports from the Delta despite the additional exports enabled by the CWF.

1 (cont.)

Plumas continues to oppose the DWR's sequencing and piecemealing of the three CEQA documents relating the California WaterFix (CWF) and the Contract Extension Project (CEP). These partial CEQA analyses are the Final EIR/EIS for the BCDP now the CWF, the Final Impact Report for the Contract Extension Project (CEP FEIR) and the Draft Environmental Report for the California WaterFix, the CWF DEIR .

2

Plumas incorporates DWR's CEP FEIR "Responses to Comments" and the economic analysis used by DWR to determine positive economic benefits of the CWF into our comments for the CWF DEIR. Plumas brings old and new information together to reiterate past concerns raised by Plumas that are now heightened by new information that has become available after the CWF Notice of Preparation (NOP) and that are not yet incorporated into the FEIR for the CWF. The Plumas Comments on the NOP for the CWF DEIR are incorporated herein for reference.

3

4

5

As we describe in our comments below, DWR's failure to incorporate new information into the DEIR for the CWF undermines DWR's obligation as the Lead Agency for the CEP and CWF CEQA processes to uphold *"the statutory requirement and the significance of this obligation to the financial integrity of the State Water Project… (CEP FEIR, p. 2-25*) Plumas provides new information and links this new information to the financial integrity of the SWP and the equitable cost allocation for the CWF. Plumas requests that DWR acknowledge that in the face of these uncertainties DWR must look at the whole project. because portioning and sequencing the DEIR for the CWF creates real risks for the financial stability of the SWP and long-term affordability inequities among SWP PWAs, which are DWR's Project Objectives for the CWF DEIR.

6

Plumas appreciates that DWR notes in the "Response to Comments" in the CEP FEIR that DWR relies on, *"the statutory requirement and the significance of this obligation to the financial integrity of the State Water Project… (CEP FEIR, p. 2-25)* as DWR exercises its agency discretion on the scope and timing of CEQA analyses and certifications.

7

"DWR and the PWAs have a common interest to ensure the efficient delivery of SWP water supplies and to ensure the SWP's financial integrity. In order to address water management flexibility and to allocate costs for California WaterFix, DWR and the PWAs agreed to the following objectives:

(1) *Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area.*

(2) *Provide a fair and equitable approach for cost allocation of California WaterFix*

Plumas recommends that the CWF FEIR describe the whole project as presented by DWR Director Karla Nemeth in testimony to the Joint Legislative Committee on the September 11, 2018, *"Karla Nemeth starting 1:10:27 to 1:13:43: Senator Pan: "I do not hear an answer to my question." Director Nemeth, "Yes, we will use these amendments to finance WaterFix...We have a category in our existing contracts that describes the ability of the Department to fund projects in the Delta including delta facilities and that would include WaterFix.*

https://www.senate.ca.gov/mediarchive/default?title=&startdate=09%2F11%2F2018&enddate=&=Searc

7 (cont.)

Although CEQA does not require economic analysis, the positive economic benefits described in the EIR/EIS for the CWF are nonetheless important findings for securing bond financing for the CWF. Therefore the whole project properly includes new information about the increasingly uncertain economic benefits of the CWF that are now available by incorporating predicted environmental changes, changing water management priorities by federal water contractors and purveyors, and pending actions by State and Federal Agencies into the FEIR for the CWF. In summary these new uncertainties include:

(1) Predicted significant decreases in inflows to the Central Valley Project's Shasta Reservoir and the SWP Oroville Reservoir in the **4th Climate Assessment** published in late October 2018,

(2) New federal priorities for increased exports from the Delta to the San Luis Reservoir for the benefit of CVP Contractors becomes available from the **US Bureau of Reclamation COA letter** in August and further federal policy directives released in November 2018,

(3) The inability of the CWF in November of 2018 to obtain commitments by the federal government for this funding year for **WWFIA loans** of up to 49% of the latest 19.9-billion-dollar debt estimate for the CWF.

(4) Uncertainty about the future carry over storage and operations at the SWP Oroville Reservoir in the face of an **insuffiency determination made public by the Federal Energy Regulatory Commission (FERC)** regarding DWR's dam safety repairs at Oroville in FERC's October 2018 letter to DWR.

(5) Uncertainties about the regulatory responses to the uncertainties listed above by the State and Federal agencies that in the past have responded to unavailable water supplies to the SWP by reducing export flows from the Delta to the to the San Luis Reservoir for both CVP and SWP Contractors. Although the **State Water Resources Control Board's July 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan** is delayed pending further negotiations, it has not been withdrawn.

8

In summary, these five issues, are new information released during the period between the close of the CWF NOP comment period and the close of the comment period for this CWF DEIR.

8 (cont.)

For Plumas these five issues present new and potentially cumulatively significant financial and environmental risks heretofore unanalyzed in past environmental documents for both the CWF and the CEP, and that are currently proposed to remain undisclosed, unanalyzed and unaddressed in the CWF DEIR.*a....CEQA does not require DWR to analyze the proposed project* {CEP*} in combination with California WaterFix as part of a single project in a single EIR because: (1) the proposed project{CEP} and California WaterFix are not a reasonably foreseeable consequence of one another; and (2) the proposed project* {CEP} *has significant independent utility, including independent benefits and independent purposes and objectives."(CEP FEIR, p. 2-7).*

According to DWR Director Nemeth's September 11th testimony this premise is no longer accurate. The insistence by DWR in the CWF DEIR that it has the discretion under CEQA to continue piecemealing and sequencing CEQA in the face of this new information, in effect, allows DWR to continue ignore inconsistencies in its approach to analyzing economic and environmental costs and benefits of the CWF, which in turn, undermines the fundamental basis for achieving the CWF DEIR Project Objectives for maintaining the financial integrity of the SWP and equitably apportioning costs for the CWF (and now including unnamed future SWP projects) after the certification of the CEP FEIR.

9

Therefore, Plumas recommends the CWF FEIR reconsider the whole project as the CWF and CEP Projects. *"CEQA Guideline § 15378(b) sets forth a list of what the term "project" does not include. Guideline § 15378(b)(4) in the list exempts from being a "project," The creation of government funding mechanisms or other government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment. The government's fiscal activities involved here do involve commitment to a specific project, in fact a number of projects. It is clear under the CEQA Guidelines including § 15378(b)(4) that "the creation of government funding mechanisms or other government fiscal activities" which involve commitment to a specific project or projects which may result in a potentially significant physical impact on the environment, is an activity, a "project," which must be preceded by preparation of a legally sufficient EIR. CEQA must "be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.""*

Specific Comments on the five new issues:

(1) Significant decreases in inflows to the Central Valley Project (CVP) Shasta and the Stage Water Project (SWP) Oroville reservoirs are predicted in the 4th Climate Assessment:
The 4th Climate Assessment warns that the historic patterns of inflow into the SWP's Oroville Reservoir are predicted to decline over the life of the CWF.

From the 4th Climate Assessment:
3.2.2.1 Surface-Water Supplies
The seasonal availability of surface-water supplies will change, with potentially large impacts on local to state-scale water management systems.

The impacts of a changed climate on surface water amounts and timing in the Sierra Nevada have important implications for water supplies. Observed trends towards earlier peak stream flow will likely continue through the 21st century, with peak stream flows arriving 20-40 days earlier than the mid-20th century in many rivers (Stewart et al. 2004, Fritze et al. 2011). Eventually, warming will drive snowmelt into the earliest spring and latest winter months, when the sun is not high in the sky, so that ultimately snowmelt is likely to slow (Musselman et al. 2017). Nonetheless, earlier peak stream flow will result in greater winter flows with attendant enhancements of flood risks, and less stream flow in the longer, drier summers. Declines in summertime stream flow are particularly important because California's Mediterranean precipitation regimes is such that it routinely experiences a "seasonal drought" in summer, a highly predictable dearth of precipitation during the warm seasons. is summertime drought coincides with when both natural and human communities rely on water reserves stored in snowpack or reservoirs to survive until the next wet season is when the fuels that support wild fires cure to their driest points. Thus reductions in summertime surface-water availability place the water supplies for natural and human communities at great risk, as well as elevating wild re risks.

As the source of so much of California's water, management of the Sierra Nevada region's water resources is key to managing water supplies throughout the region and throughout the State. With projected changes in snowpack, snowmelt and stream flow timing (Fig. 2.8), flood risk, evaporation rates, groundwater, and upstream water uses, even the state's largest scale water-storage and conveyance systems may be challenged. Knowles et al. (in review) simulated the effects of the same 10-model ensemble of climate projections presented in Section 2 on water conditions in a modified version of the U.S. Bureau of Reclamation (USBR) and California Department of Water Resources's CALSIM II model of water- management operations by the State Water Project (SWP), USBR's Central Valley Project (CVP), and other less extensive water supplies and conveyances in the Central Valley. e amount of water stored in the major reservoirs of the western Sierra Nevada by the end of the water year (the "carryover storage") gives a useful indication of the resilience of the large- scale systems to manage long-term drought shortages.

10

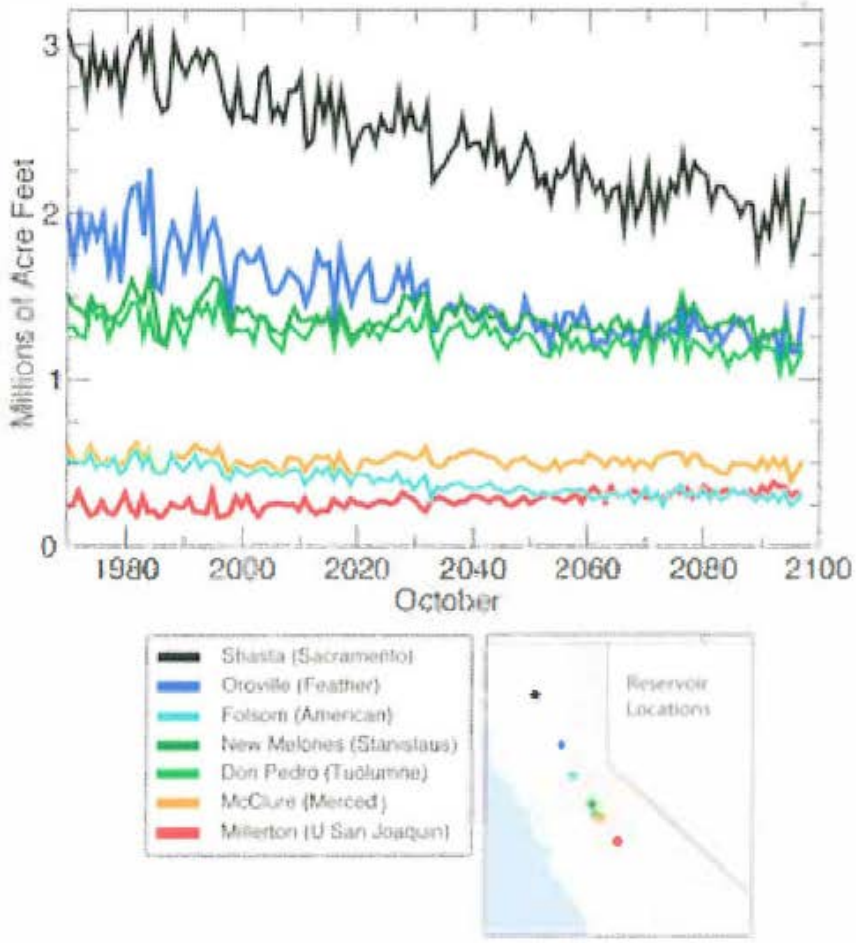
Fig. 3.2.2 shows that, on average over projections from ten climate models responding to RCP4.5 and RCP8.5 greenhouse-gas forcings, carryover storage in the largest reservoirs (i.e., Shasta at the head of the CVP and Oroville at the head of the SWP) decline markedly, by roughly one-third over the course of this century. is decline in carryover storage will severely impact reservoir operations, limiting their capacity to ensure adequate water supply for dry years. Declines are smaller farther south, becoming almost nonexistent south of the American River basin (Folsom). Presumably, large declines in the northern Sierra Nevada reflect the dramatic reduction of seasonal storage in the snowpacks of that lower, warmer part of the range (Figs. 2.5 and 2.6). Farther south, snowpacks survive somewhat better, and constraints on reservoir releases to the San Joaquin River and water users in the San Joaquin Valley are such that reservoirs continue to serve at least this most basic of reservoir functions (carryover storage) throughout the century.

10
(cont.)

*(Source: Fourth Climate Change Assessment **Sierra Nevada Region** | 47)*

[Figure 3.2.2 follows on the next page.]

FIGURE 3.2.2



Projected end-of-water-year storages in seven major reservoirs along the western ramparts of the Sierra Nevada (see inset map), from combination of 10-model climate-change ensemble, the Variable Infiltration Capacity hydrologic model, and a modified version of the USBR/DWR Calsim II water-management model (based on data from Knowles et al., in review).

10 (cont.)

This new information becomes important for this DEIR CEQA analysis because DWR utilizes the "climate change" rationale provided by the Brattle Group in the Sunding Economic Study for five billion dollars in benefits from implementations the CWF in mitigating sea level rise in the Delta predicted for the project life of the CWF.

"DWR modeling indicates that Delta exports are highly sensitive with respect to sea level rise. A rise in sea level means more salinity intrusion from the ocean via the San Francisco Bay,

affecting the water quality of exports and requiring more fresh water to be released from upstream reservoirs to meet salinity standards. By 2100, a 2-foot sea level rise becomes a more important contributor to reduced annual south-of-Delta export than does annual inflow change, a result also shown by Fleenor et al. (2008). The DWR study published by Wang et al. (2011) concludes that sea level rise can be expected to reduce Delta exports by over 119,000 acre-feet annually by mid-century, and by over 520,000 acre- feet annually by 2100. Construction of the WaterFix would prevent these losses by giving water managers the capability to divert water directly from the Sacramento River upstream of the Delta."

It is important to note that the inclusion of the climate mitigation benefits in the Delta creates a positive cost-benefit ratio for the CWF and without the sea level rise protection benefits, the CWF is not a cost-effective investment according to the Sunding-Battle Group's economic analysis. It is also important to note that DWR's only possible rationale for not including and analyzing the predicted effects of climate change on inflows to the CVP's Shasta facility and the SWP's Oroville facility is that this information became available after the July 2017 Certification for the California Water Fix EIR/EIS and DWR's finding that the Sunding-Battle Group's economic analysis s consistent with the DWR's economic analysis guidelines.

DWR argues in the responses to comments for the Contract Extension Project (CEP) FEIR, *"DWR is not avoiding the demands facing the State and the Delta with regard to these issues. As recognized in the DEIR, there are administrative and legislative efforts that address these concerns as part of other comprehensive statewide processes. This EIR does not need to address all issues facing the SWP or the Delta. DWR leaves resolution of these broader issues to other established planning, legislative and regulatory processes. CEQA Guidelines Section 15165 provides that "[w]here one project is one of several similar projects of a public agency but is not deemed a part of a larger undertaking or larger project, the agency may prepare one EIR for all projects, or one for each project, but shall in either case comment upon the cumulative effect. The California Supreme Court held that "an EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects. Absent these two circumstances, the future expansion need not be considered in the EIR for the proposed project." Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal. 3d 376, 396*

10 (cont.)

Although climate change is not a consequence of the Proposed Project, it does affect the economic benefits analyzed for the Proposed Project that in turn affect the financial affordability of the Proposed Project and the financial integrity of the SWP that it becomes part of with adequate financing. Plumas asks the DWR to use the newly available available science provided in the 4th Climate Assessment in the CWF FEIR to disclose and evaluate new information about a broader range of climate factors affecting SWP operations in the Delta than sea-level rise. The CWF FEIR should discuss the cumulative effect of the full range of

climate change factors on the economic benefits of the CWF as declining inflows and sea level rise affect the physical operations of the SWP over the next 85 years. For reference, economic benefits are based on the following water yields in the Sunding-Brattle Group report which may not be accurate for climate change and other factors as we discuss in further detail below.

Table 2:
Average Annual Yields (Acre-Feet) for
State Water Project and CVP South of Delta Water Service Contractors
in the 9,000-cfs SWP/CVP Scenario

	SWP Agencies		CVP Agencies
	Urban	Agricultural	
Proposed Project	1,992,232	719,733	950,923
No Tunnels	1,547,885	479,000	634,822
Incremental Yield	444,348	240,733	316,101

Source: California Department of Water Resources.

Table 3:
Average Annual Yields (Acre-Feet) for
State Water Project Contractors in the 9,000-cfs SWP Only Scenario

	SWP Agencies	
	Urban	Agricultural
Proposed Project	2,091,829	771,619
No Tunnels	1,547,885	479,000
Incremental Yield	543,945	292,618

Source: California Department of Water Resources.

10 (cont.)

(2) Federal priorities for increased exports from the Delta to San Luis Reservoir (SLR) for the benefit of CVP Contractors, and

(3) The inability of the CWF to obtain commitments by the Federal Government in this funding cycle for loans of up to 49% of the now 19.9 billion dollar debt estimate for the CWF.

11

In light of recent actions by the Bureau of Reclamation (BOR) and the Department of Interior (DOI) regarding the supremacy of federal water exports from the Delta it becomes difficult to argue that the CEP and CWF DEIRs are not about management and operations of the SWP and only about financing the management and operations of the SWP **because** both of the CEP and the CWF AIPs concern themselves with allocating SWP storage and deliveries from San Luis Reservoir, and especially concern themselves with carry over storage and banking provisions

and priorities in the San Luis Reservoir times of water surplus and shortage. Below San Luis Reservoir, the CEP and the CWF are interlinked by the shared SWP and CVP storage and conveyance in the South of Delta service areas and they both depend on the "common pool" of the Delta.

Specifically, Plumas argues that given new federal priorities for operations of the CVP, DWR can no longer assert that "*The lead agency has the authority and responsibility to initially frame the scope of its proposed purpose and objectives. As discussed in Response to Comment 5-11, the lead agency is free to limit its proposed objectives to the issues it wants to address and is not obligated to look at broader issues or concerns." (CEP FEIR, p.2-10)*

In the Master Responses to the CEP FEIR, DWR states that "*CEQA does not require an agency to examine a project and objectives that are completely different from the one it has chosen to pursue. This {CEP DEIR} is not an EIR on the operation and maintenance of the SWP…The DEIR does not evaluate issues such as impacts attributed to the operation of the SWP, all of the problems facing the Delta, or activities relating to water conservation and water supply. These would continue to exist even if there were no proposed project. As a result, under CEQA, they are considered part of the baseline conditions and are not environmental impacts of the proposed project. Therefore, in the DEIR DWR is not required to mitigate or consider alternatives for impacts attributed to the on- going operation and maintenance of the SWP. (CEP FEIR, p. 2-7)*

11 (cont.)

However, Plumas asserts that that legal premise changed on August 17, 2018, when the US Bureau of Reclamation (BOR) sent a letter to DWR opening renegotiations on the Coordinated Operating Agreement (COA). The COA governs the SWP and CVP operations in the Delta and in the San Luis Reservoir. As the BOR letter states,

"There have been numerous meetings over the past two years, which have included Central Valley Project (CYP) and State Water Project (SWP) contractors. This has included considerable productive discussion and sharing of information and data through which we have learned a great deal about our respective operations as they have evolved over the years. At this point, we have concluded the Article 14(a) review process. Unfortunately, we have been unable to mutually agree on revisions to COA for maintaining conformity with the objectives and principles embodied in the 1986 COA and underlying technical studies. Absent mutual agreement on revisions needed to COA, Reclamation respectfully makes this Notice of Negotiations in accordance with Article I4(b)(2). I am designating Mr. Federico Barajas as the Lead Negotiator for Reclamation and request DWR identify their Lead Negotiator. It is suggested the respective leads immediately form their negotiating teams and proceed with negotiations within the next 30 calendar days in order to allow for satisfactory conclusion of an agreement within twelve months of the date of this letter, per COA. "

In a November 19, 2018 letter to the Delta Stewardship Council (DSC), a coalition of environmental groups support the concerns raised by five Counties within the legal Delta by commenting that, *"The WaterFix project is a partnership between DWR and the U.S. Bureau of Reclamation. New, repeated declarations of federal policy to maximize exports, regardless of the consequences for the Delta, have undermined the credibility of any evidence that the Bureau of Reclamation will adhere to the Delta Plan policies, mitigation measures, and "adaptive management" for the project…Water Code § 85320(b)(2)(A) contains specific requirements for incorporation of the project into the Delta Plan including "operational requirements and flows necessary for recovering the Delta ecosystem and restoring fisheries under a reasonable range of hydrologic conditions, which will identify the remaining water available for export and other beneficial uses." Section 85320(b)(2)(B) requires comprehensive review of "A reasonable range of Delta conveyance alternatives, including through-Delta, dual conveyance, and isolated conveyance alternatives . . ." The Delta Reform Act cannot be reasonably construed to make everything in it meaningless if the federal partner in the project should wish to maximize exports…The Presidential Memorandum, along with such other recent federal actions as the August 17, 2018, Secretary of the Interior Memorandum, show that it would require ignoring "practical reality" and defy common sense were the DSC to make a finding that the WaterFix Tunnels project is consistent with the policies of the Delta Plan. The project is a joint one of California's DWR, and the U.S. Bureau of Reclamation. The federal policy is now to maximize exports regardless of the consequences for Delta water flows and Delta water quality. These critical federal documents will have to be officially noticed before any decision could be considered, let alone reached, finding consistency of the Covered Action with the Delta Plan."*

11 (cont.)

Therefore the CWF FEIR must now address the possibility that changed CVP operations will affect SWP operations in ways that could affect the ability of the SWP to store and deliver SWP water from the Delta to the San Luis Reservoir that is needed to achieve the physical benefits described for the CEP and the CWF and the economic benefits presented in the Sunding-Brattle Group economic analysis for the CWF. Delaying the release and certification of the CWF FEIR until the COA negotiations are concluded and until after the DSC issues its "Findings of Consistency" is one reasonable approach in the face of this new information.

In addition, the Delta Conveyance Finance Authority (DCFA)'s LOI seeking an initial $1.6 billion in funding for the project's design and construction and discussions of securing up to 49 percent of the CWF's total eligible costs through WIFIA loans was denied for 2018. Plumas requests that the DWR delay the CWF FEIR until after DWR Capital Improvements Plan becomes available so that the public can understand the magnitude of debt associated with financing the whole project including the CWF and unanalyzed future SWP projects that the DWR is intending to finance through bonds, loans and user charges using the AIP provisions for the CER FEIR and the CWF DEIR .

12

(4) **Uncertainty about the future carry over storage and operations at the SWP Oroville Reservoir in the face of insufficiency determinations by FERC regarding DWR's dam safety repairs,**

13

In October 2018 the Federal Energy Regulatory Commission (FERC) questioned the durability of the repairs to Oroville Dam and Spillway in mega-flood events which are predicted to occur more frequently in the future in the 4th Climate Change Assessment. Although it remains unclear what FERC will require to ensure dam safety under these future circumstances, the presumption of historic carry-over storage in the SWP's largest facility is questionable given the Army Corps' existing requirement for lower carry-over storage at Oroville until safety concerns are addressed by DWR to the satisfaction of the ACOE and the FERC. 13 (cont.)

(5) Uncertainties about the regulatory responses to the uncertainties listed above by the State and Federal agencies that in the past have responded by reducing export flows

Plumas commented about the proposed revised Delta flows in the State Water Resources Control Boards' Although the **State Water Resources Control Board's July 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan** is delayed pending further negotiations, it has not been withdrawn. As DWR comments in the CEP FEIR, *"When exporting water from the Delta, DWR must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, and regulations relating to reservoir releases and Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other users. The needs of other users include in-Delta users and the water rights of the areas of origin of Delta inflow. These requirements include applicable State Water Resources Control Board (State Water Board) orders, United States Army Corps of Engineers (USACE) permits, Biological Opinions (BiOps) and other regulatory constraints including any relevant judicial orders in effect at the time of the operation. They have established water quality and flow requirements and limits on the rate of export of water that can be pumped by the state and federal pumping plants. Therefore, compliance is included in the proposed project and all of the alternatives analyzed in the DEIR. Approval of the proposed project would not alter the SWP obligation and commitment to comply with all current and future applicable regulatory requirements, including biological opinions and water rights decisions." (CEP FEIR, p. 2-11)* Plumas Commented extensively on the NOP for the CWF DEIR that proposed changes to the Delta inflows and exports could significantly change the water timing and availability of exports from the Delta to San Luis Reservoir and that therefore extending new contracts and financing new projects under the CEQA presumptions of unchanged SWP operations is premature. Since these actions are proposed and pending, the CWF FEIR should be delayed until new regulatory effects on the financial integrity of the SWP are available for analysis. Otherwise the perception and concern by Plumas and others that premature Contract Extensions do preempt agency and legislative authorities over SWP operations in the Delta and the SLR remains unclarified by DWR in the FEIR for the CWF. 14

(6) Affordability and equity cost-allocation issues: Provide a fair and equitable approach for cost allocation of California WaterFix (and other new SWP Projects. 15

Now that the CEP and the CWF are one project according to Director Nemeth, there are now

two inconsistent approaches for allocating new project debt identified in the CEP FEIR and in the CWF DEIR that need to be reconciled in the final CWF FEIR. The CWF DEIR AIP reaffirm the proposed PWA governance structure in the CEP FEIR whereby 80% of Contractors determine the allocation of costs for new SWP projects. The CWF AIP also specifically exempts North of Delta PWAs for CWF costs. The CEP FEIR offers no "opt out " provisions for PWAs for future SWP projects apparently authorized with the certification of the CEP FEIR that do not see benefits for their service areas that justify incurring new SWP debt for financing new SWP projects. Plumas has commented on the inequity of this approach for PWAs without "blank check taxing authority in the CEP CEQA process and the EWF CEQA process. Plumas appreciates that DWR notes in the "Response to Comments" in the CEP FEIR, the following statement: *"Given the statutory requirement and the significance of this obligation to the financial integrity of the State Water Project, DWR does not intend to make changes to this provision and expects that the Proposition 13 exemption for prior voter approved indebtedness will continue to apply during the extended term of the Contracts." (CEP FEIR, p. 2-25).* Herein DWR acknowledges that Contractors with "blank check" taxing authority, generally the largest state and federal water purveyors in the SWP and CVP water supply and delivery systems, are also the PWAs that now decide under the CEP FEIR AIP, who benefits and pays for new SWP projects. This creates a foreseeable "worst case" scenario as described for the five issues discussed above, where PWAs that are subject to Proposition 13 and Section 218 voting requirements may not be able to afford their full Table A deliveries if SWP operations and SWP capital improvements costs rise even as their SWP water supplies become less reliable. Over time, the PWAs with blank check taxing authority, under this worst case scenario are positioned to obtain majority shares the State Water Project because of their blank check taxing advantage. Since there is no DWR Capital Improvements Plan available, the SWP PWAs that must justify the financial benefits of additional new debt for new SWP projects on top of existing debt face very difficult circumstances given their Proposition 13 and Section 218 voting obligations. Therefore equity and AIP uniformity reasons and the need to reconcile inconsistencies for the "whole project", now the CEP FEIR and the CWF DEIR; Plumas again requests that "opt out" provisions like those afforded in the CWF AIP be made available for financing future SWP projects that are contemplated in the Contract Extension Project AIP. Consistency is achieved for all SWP PWAs with the highest level of equitable cost allocation among PWAs for new projects through the "opt out" or exemption provisions that the CWF DEIR AIP currently affords.

15 (cont.)

Plumas-Specific Comments:

Plumas appreciates that DWR's "Responses to Comments" for in the CEP FEIR do address some of the Plumas concerns about being forced to finance new SWP debt without an "opt out" provision in the new CEP contracts. The CEP FEIR states for that DWR will extend the current SWP Contract between the Plumas County Flood Control and Water Conservation District (Plumas) and the Department of Water Resources for another 50 years to 2085, upon receipt on an Article 4 letter from Plumas. *"The current SWP Contracts are not uniform as both Plumas*

16

County FC&WCD and the Empire West Side ID did not sign the Monterey Amendments and DWR honored the original contracts that they signed without a problem." (CEP FEIR Letter 7-11, p. 160)

"Under the No Project Alternative, DWR takes no action, and DWR and the Contractors would continue to operate and finance the SWP under the Contracts to December 31, 2035. Upon receipt of Article 4 letters from the Contractors (at least 6 months prior to the existing expiration date for each Contract) the term of the Contracts would be extended beyond their current expiration dates. Under this alternative, the Contracts would not expire beginning in 2035. Water service would continue beyond 2035 to all Contractors, consistent with the Contracts including the existing financial provisions. Annual revenue and water supply cost recovery would continue consistent with the current Contracts." Until the Contractors submit their Article 4 letters to extend their Contract expiration dates and the extended Contract expiration date is determined, DWR would not sell bonds with maturity dates past 2035 to finance SWP capital expenditures and therefore the current compression in the recovery of capital costs and the bond financing costs would be exacerbated." (CEP FEIR, p. 2-2)…."Article 4 states that, by written notice to DWR at least 6 months prior to the expiration date of a Contract, the Contractor can elect to receive continued service after the expiration of the term under the following conditions unless otherwise agreed to: (1) service of water in annual amounts up to and including the Contractor's maximum annual Table A amount; (2) service of water at no greater cost to the Contractor than would have been the case had the Contract continued in effect; (3) service of water under the same physical conditions of service, including time, place, amount, and rate of delivery; (4) retention of the same chemical quality objective provision; and 5) retention of the same options to use the SWP transportation facilities as provided for in Articles 18(c) and 55, as applicable. " (CEP DEIR, p. ES-3).

16 (cont.)

In the CEP FEIR, DWR also clarifies the anticipated benefits of mingling existing debt with new SWP debt for as yet unidentified SWP Projects by identifying near term new SWP Projects: *"These benefits* {of combining current debt with new debt} *include the ability to continue to finance projects such as repairs to the California Aqueduct, replacement of aging pumps, generators, and other equipment and implementing low greenhouse gas (GHG) emission energy projects. Capital project that could be financed in whole or in part by the sale of longer term bonds (if available as the result of Contract extension) include: (1) reinforcing Perris Dam at Lake Perris against seismic failure and maintaining other SWP facilities to current seismic safety standards; (2) reconstructing the Ronald B Robie Thermalito pump-generating plant in the aftermath of a damaging fire to the facility; (3) implementing the Oroville hydroelectric license project; and (4) obtaining a renewed Federal Energy Regulatory Commission (FERC) license for the SWP's southern hydroelectric plants." (CEP FEIR, p. 2-10).*

For reference, the following these Projects are not included in the "1hh" Provisions of the Existing SWP Contracts: *"Article 1 (Existing SWP Water Supply contract) (hh) "Water System Facilities" shall mean the following facilities to the extent that they are financed with water*

system revenue bonds or to the extent that other financing of such facilities is reimbursed with proceeds from water system revenue bonds: (1) The North Bay Aqueduct, (2) The Coastal Branch Aqueduct, (3) Delta Facilities, including Suisun Marsh facilities, to serve the purposes of water conservation in the Delta, water supply in the Delta, transfer of water across the Delta, and mitigation of the environmental effects of project facilities, and to the extent presently authorized as project purposes, recreation and fish and wildlife enhancement, (4) Local projects as defined in Article 1(h)(2) designed to develop no more than 25,000 acre-feet of project yield from each project, (5) Land acquisition prior to December 31, 1995, for the Kern Fan Element of the Kern Water Bank, (6) Additional pumps at the Banks Delta Pumping Plant,(7) The transmission line from Midway to Wheeler Ridge Pumping Plant,(8) Repairs, additions, and betterments to conservation or transportation facilities existing as of January 1, 1987, and to all other facilities described in this subarticle (hh) except for item (5), <Attachment L> (9) A project facilities corporation yard, and(10) A project facilities operation center."

16 (cont.)

Plumas thanks DWR for offering Plumas the "opt out" provision for debt from new SWP projects that is afforded by extending the existing contract with DWR and including the Plumas Amendment and the final payment to the Monterey Plaintiffs that was stipulated in the Monterey Settlement Agreement.

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Thank you for the opportunity to comment.

Submitted by,

Jeff Engle, Chair
engel.dist.5@gmail.com
Governing Board
Plumas County Flood Control and Water Conservation District
and
Plumas County Board of Supervisors

cc. Board of Supervisors, County of Plumas – pcbs@countyofplumas.com
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cc. Bob Perreault, Manager, Plumas County Flood Control and Water Conservation District – bobperreault@countyofplumas.com
cc. Randy Wilson, Director, Plumas County Planning Department – randywilson@countyofplumas.com
cc. Craig Settlemire, County Counsel, County of Plumas – csettlemire@countyofplumas.com
cc. Honorable Ted Gaines, Senate District 1
cc. Honorable Brian Dahle, Assembly District 1
cc. Bruce Alpert, County Counsel, County of Butte
cc. Paul Gosselin, Director, Department of Water and Resource Conservation, County of Butte

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Letter 3

Water and Resource Conservation Paul Gosselin, Director

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January 9, 2019

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RE: State Water Project -
Water Supply Contract Amendments for Water Management and California WaterFix

Dear Mr. Ted Alvarez and Ms. Cassandra Enos-Nobriga:

Butte County is one of the 29 State Water Project (SWP) Contractors, also referred to as Public Water Agencies (PWAs). Butte County has participated actively in the development of California Environmental Quality Act (CEQA) and the public negotiations among SWP PWAs leading to the Notice of Preparation (NOP) for both the Contract Extension Project (CEP) and the California Water Fix (CWF).

From the onset of the CEP negotiations, Butte County sought to have a contractual assurance that it would not be obligated to pay for the costs associated with the CWF. After a long delay, we are encouraged that the Agreement in Principal (AIP) for the CWF provides the assurance which specifically exempts the North of Delta PWAs from all applicable CWF costs. The assurances provided in the SWP CEP AIP and the CWF AIP are suitable to bring to the Butte County Board of Supervisors for consideration in the next few months.

1

Despite the positive attributes in the SWP CEP and CWF amendments, Butte County continues to have concerns with the Department of Water Resources' sequencing and piecemealing of the three CEQA documents relating the CWF and the CEP. Butte County has actively participated

2

in the development of the Bay Delta Conservation Plan (BDCP) process, which later became the CWF, and has submitted comments on various regulatory proceedings related to the BDCP/CWF. We remain troubled that the CEQA analyses for the CWF Final EIR/EIS, the Final Impact Report CEP and the Draft Environmental Report Validation Action for the CWF remain inadequate.. By reference, Butte County concurs, joins in and incorporates by reference herein the comments submitted on December 18, 2018 by Plumas County and submitted on December 11, 2018 by Roger Moore.

2 (cont.)

3

We are encouraged with the AIP for the SWP CEP and CWF amendments. However, we remain concerned that the BDCP/WaterFix and its related EIR/EIS do not comply with State water law and inadequately assess the environmental and socioeconomic impacts.

4

Sincerely,

Paul Gosselin, Director

Cc: Bruce Alpert, Butte County Counsel
Butte County Board of Supervisors
Governing Board, Plumas County Flood Control and Water Conservation District
Bob Perreault, Manager, Plumas County Flood Control and Water Conservation District
Roger Moore, Law Office of Roger Moore

LAW OFFICE OF ROGER B. MOORE

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ADMITTED IN CALIFORNIA

December 11, 2018

Karla Nemeth, Director
California Department of Water Resources
1416 9th Street, Room 1115
Sacramento, CA 9581

via email (Janiene.Friend@water.ca.gov)

Re: Prematurity of Final Decision By Lead or Responsible Agencies to Authorize DWR's Proposed "Contract Extension" Amendments

Dear Ms. Nemeth:

We represent counties and other agencies from the Delta region and northern Sacramento Valley in the coordinated proceeding in Sacramento County Superior Court on DWR's proposed California WaterFix project (JCCP 4942), including the Counties of San Joaquin, Contra Costa, Solano, Yolo, Butte, and Plumas, as well as Central Delta Water Agency, Contra Costa County Water Agency, Plumas County Flood Control and Water Conservation District, and Local Agencies of the North Delta. In DWR's pending WaterFix validation action in JCCP 4942, these public agencies, among others, dispute DWR's authority to impose billions of dollars in revenue bond debt for California WaterFix under the State Water Project (SWP) contracts and other laws.

DWR's efforts to impose binding debt for the Delta Tunnels project (a.k.a. "WaterFix") also relate closely to its proposed "contract extension" amendments to SWP contracts set to expire starting in 2035. The beleaguered and massively expensive Delta Tunnels project is and remains, the proverbial elephant in the room. The amendments not only extend the contracts through 2085; they also propose to remove existing constraints on covered "facilities" that would otherwise prevent imposing revenue bond debt for WaterFix, and potentially other costly projects opposed by some contractors and the public. Four members of Congress, noting that "it is clear that DWR's request for a contract extension is rooted in its desire to bond the cost of WaterFix," recently warned that making "such a significant and costly decision" would be premature and risky prior to determination of the validation action (Exhibit 1). Moreover, proceeding to final approval

would piecemeal consideration of the extension amendments from a second set of "water supply" contract amendments facilitating WaterFix, for which Draft EIR comments are not due until January 9, 2019.

When DWR certified its Contract Extension Final EIR on November 13, 2018, it did not make a final project decision, and instead indicated that the State Water Project Analysis Office and Office of Chief Counsel would first issue a "follow-on" memorandum and recommendation. Metropolitan Water District of Southern California (MWD) and Santa Clara Valley Water District (SCVWD) appear to have improperly calendared the contract extension for consideration as responsible agencies without even waiting for the lead agency's evaluation and project decision, much less any opportunity for public review and discussion. To avoid a high potential for confusion, uncertainty, and prejudice, decisions must clearly inform the public of the timing of any Notices of Determination under CEQA, and any final authorizations subject to the requirements of the validation statute (Code Civ. Proc., §§ 860, et seq.).

As detailed below, it is both premature and risky for DWR as lead agency, or any responsible agencies, to finally authorize DWR's proposed contract extension amendments at this time. First, deficiencies in the record preclude final determination by both lead and responsible agencies under CEQA. Absent from the documents referenced in DWR's November 13, 2018 certification memorandum and the responsible agency agenda items are the complete hearings, oral and written testimony (including testimony from one of the undersigned counsel attached in written form as Exhibit 2), and correspondence from closely related legislative hearings on DWR's proposed contract extension. Hearings before the Senate Natural Resources and Water Committee (SNRWC) on July 3, 2018 and the Joint Legislative and Budget Committee (JLBC) on September 11, 2018, bear directly on the environmental review for the contract extension. [1] This includes the foundational issue of the extension project's relationship to the Delta Tunnels and the separately reviewed Water Supply Contract Amendments—yet this critically important relationship is not analyzed in DWR's Final EIR and certification.[2]

[1] See, e.g., DWR's Water Supply Contract Extension web page, including all linked documents (https://water.ca.gov/Programs/State-Water-Project/Management/Water-Supply-Contract-Extension); SNRWC's web page, including all linked documents for July 3, 2018 hearing and web link to video recording of hearing (https://sntr.senate.ca.gov/content/2018-informationaloversight-hearings); JLBC's web page, including all linked documents for September 11, 2018 hearing and cancelled August 30, 2018 hearing (https://www.senate.ca.gov/legislativebudget); video link to September 11, 2018 JLBC hearing on proposed SWP contract extension (http://calchannel.granicus.com/MediaPlayer.php?view_id=2&clip_id=5820).

[2] See, e.g., SNRWC Background Brief to July 3, 2018 hearing, p. 17 (referencing the recognition of SWP contractors and DWR that the proposed contract extension amendments are "a necessary, but not sufficient condition to incorporate WaterFix into

Second, 2018 comments, mainly referenced to legislative hearings, underscore the prematurity of final approval. Public agency critics throughout California, from Plumas County and the Delta Counties Coalition to San Diego County, criticized DWR's efforts to finalize the contract extension without integrated review of all DWR's proposed amendments related to the Delta Tunnels, including the Water Supply Contract Amendments still awaiting public comment and completion of review. (Exhibit 3.) The Legislative Delta Caucus observed that these "poorly defined" amendments would have "potential adverse impacts far beyond their apparent scope. There is much that remains unknown regarding the extensive changes to the SWP contracts that are being proposed and how the changes will impact property taxes, water rates, the fiscal integrity of the SWP and General Fund." (Exhibit 4.) Following the 2018 legislative hearings, more than a dozen organizations identified numerous changed circumstances requiring additional environmental review since public comment closed in October 2016, only to have DWR, in its November 13, 2018 certification memo, respond with the *non-sequitur* that the general issue areas were discussed in 2016 (Exhibit 5). Commentary in major newspapers criticized the defective process and lack of transparency surrounding the contract extension, as well as DWR's attempts to leverage WaterFix indebtedness without adequate review and debate (Exhibit 6).

Third, testimony at the September 11, 2018 JLBC hearing undermines the premise of independence from WaterFix upon which DWR's separate Contract Extension Final EIR is founded. That includes your own testimony on DWR's behalf, following questioning from Senator Richard Pan, that DWR plans to "use these amendments to finance WaterFix," and the testimony of Rachel Ehlers of the Legislative Accounting Office that the contract extension amendments would "affect and facilitate" WaterFix.[3] Facilitation of WaterFix through the contract extension amendments is also addressed in the testimony of Congressman McNerney and of Roger Moore at the same hearing.

Fourth, DWR sidesteps meaningful analysis of a major project element. (See, e.g., *Planning and Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 904-920 (requiring CEQA analysis prior to amending contract provision).) As addressed in the legislative testimony of Roger Moore, echoing commenters on the Draft EIR (Exhibit 2), DWR's extension amendments would eliminate limitations on covered "facilities" under article 1(hh)(8) of current SWP contracts that would otherwise render WaterFix ineligible for revenue bond financing. The Final EIR fails to address public comments on impacts that would reasonably result from such a change in language. (See, e.g., PCL, et al.'s October 16, 2016 EIR Comments, p. 6, and Ex. A, p. 4.) By contrast, DWR's assurance that projects facilitated by the contract

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the SWP," and the contention of many organizations that contract amendments remain premature while WaterFix issues are unresolved).

[3] Video link to September 11, 2018 JLBC hearing, *op cit.*; see also Exhibit 5, pp. 2, 5, fn. 2, 16-17 (quoting DWR Director's testimony) and p. 13, fn. 46 (referencing testimony of Roger Moore).

extension will be covered by separate CEQA review (e.g., FEIR 2-10, 134) ring hollow. DWR's Delta Tunnels EIR and project approval neither admitted nor analyzed dependence on a subsequent SWP contract amendment. Critically, CEQA review of later-approved projects would come too late to address the consequences of redefining covered "facilities," because the current contract language would already be eliminated.

Fifth, the FEIR undermines its premise that the contract extension amendments proposed by DWR have independent utility as a "separate, independent project" addressing debt compression problems. (FEIR, 2-9.) Debt compression is based on the comparatively short maturity dates of existing SWP contracts. (*id.*) And the FEIR recognizes that the Evergreen Clause in Article 4 of the SWP contracts already provides a way to extend these dates. (E.g., FEIR, 2-3 to 2-5, 2-33.) DWR has not shown its version of the amendments, including the proposed facilities redefinition, to be necessary to ensure continued water deliveries or responsibly address operation and maintenance needs. By facilitating the issuance of potentially billions of dollars to construct the Delta Tunnels project, and perhaps other projects not currently eligible, DWR may under the guise of risk reduction force a risky escalation of indebtedness.

Sixth, as addressed in the written testimony of Roger Moore and the comments of the Delta Counties Coalition (Exhibits 2, 3), Water Code prerequisites for proceeding to finality on the extension amendments (Wat. Code, §§ 147, 147.5) still have not been met.

Lastly, to avoid the piecemealing problem discussed in Plumas County's letter (Exhibit 3), all DWR's proposed amendments must be reviewed and considered together prior to finality, including the proposed extension amendments and Water Supply Contract Amendments.

Respectfully,

Roger B. Moore
Law Office of Roger B. Moore

Thomas H. Keeling
Freeman Firm, a PLC

Attorneys for Public Agencies County of San Joaquin, Central Delta Water Agency, County of Contra Costa, Contra Costa County Water Agency, County of Solano,

County of Yolo, County of Butte, County of Plumas, and Plumas County Flood Control and Water Conservation District

Osha Meserve
Soluri Meserve, a Law Corporation

Attorney for Local Agencies of the North Delta

cc: Metropolitan Water District of Southern California
Santa Clara Valley Water District
State Water Contractors, Inc.

PLUMAS COUNTY FLOOD CONTROL & CONSERVATION DISTRICT
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Jeff Engel, Chair, Governing Board
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December 18, 2018

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RE: **State Water Project**
Water Supply Contract Amendments for Water Management and California WaterFix

Dear Mr. Ted Alvarez and Ms. Cassandra Enos-Nobriga:

Introduction and Background:

Plumas County Flood Control and Water Conservation District (Plumas) is one of 29 State Water Project Contractors, now called Public Water Agencies (PWAs).

Plumas has participated actively in the development of CEQA and the public negotiations among SWP PWAs leading to the Notice of Preparation (NOP) for both the Contract Extension Project (CEP) and the California Water Fix (CWF). Plumas has provided comments on the Draft Environmental Impact Reports (DEIRs) and also the Agreements In Principle (AIPs) for both the DEIR for the CEP and for the NOP for the CWF.

Plumas intends to sign the AIP for the CWF. Plumas supports the AIP for the CWF because it specifically exempts the North of Delta Public Water Agencies (PWAs), including Plumas, from all CWF costs (with the possible exception of blended power rates.) The AIP for the CWF also includes new water management tools to enable SWP PWAs downstream of DWR's Oroville Reservoir that sign both the SWP CEP AIP and the CWF AIP to better cope with the real potential for more unreliable water exports from the Delta despite the additional exports enabled by the CWF.

Plumas continues to oppose the DWR's sequencing and piecemealing of the three CEQA documents relating the California WaterFix (CWF) and the Contract Extension Project (CEP). These partial CEQA analyses are the Final EIR/EIS for the BCDP now the CWF, the Final Impact Report for the Contract Extension Project (CEP FEIR) and the Draft Environmental Report for the California WaterFix, the CWF DEIR .

Plumas incorporates DWR's CEP FEIR "Responses to Comments" and the economic analysis used by DWR to determine positive economic benefits of the CWF into our comments for the CWF DEIR. Plumas brings old and new information together to reiterate past concerns raised by Plumas that are now heightened by new information that has become available after the CWF Notice of Preparation (NOP) and that are not yet incorporated into the FEIR for the CWF. The Plumas Comments on the NOP for the CWF DEIR are incorporated herein for reference.

As we describe in our comments below, DWR's failure to incorporate new information into the DEIR for the CWF undermines DWR's obligation as the Lead Agency for the CEP and CWF CEQA processes to uphold *"the statutory requirement and the significance of this obligation to the financial integrity of the State Water Project... (CEP FEIR, p. 2-25*) Plumas provides new information and links this new information to the financial integrity of the SWP and the equitable cost allocation for the CWF. Plumas requests that DWR acknowledge that in the face of these uncertainties DWR must look at the whole project. because portioning and sequencing the DEIR for the CWF creates real risks for the financial stability of the SWP and long-term affordability inequities among SWP PWAs, which are DWR's Project Objectives for the CWF DEIR.

Plumas appreciates that DWR notes in the "Response to Comments" in the CEP FEIR that DWR relies on, *"the statutory requirement and the significance of this obligation to the financial integrity of the State Water Project... (CEP FEIR, p. 2-25)* as DWR exercises its agency discretion on the scope and timing of CEQA analyses and certifications.

"DWR and the PWAs have a common interest to ensure the efficient delivery of SWP water supplies and to ensure the SWP's financial integrity. In order to address water management flexibility and to allocate costs for California WaterFix, DWR and the PWAs agreed to the following objectives:

(1) Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area.

(2) *Provide a fair and equitable approach for cost allocation of California WaterFix*

Plumas recommends that the CWF FEIR describe the whole project as presented by DWR Director Karla Nemeth in testimony to the Joint Legislative Committee on the September 11, 2018, *"Karla Nemeth starting 1:10:27 to 1:13:43: Senator Pan: "I do not hear an answer to my question.â Director Nemeth, "Yes, we will use these amendments to finance WaterFix...We have a category in our existing contracts that describes the ability of the Department to fund projects in the Delta including delta facilities and that would include WaterFix.*

https://www.senate.ca.gov/mediarchive/default?title=&startdate=09%2F11%2F2018&enddate=&=Searc

Although CEQA does not require economic analysis, the positive economic benefits described in the EIR/EIS for the CWF are nonetheless important findings for securing bond financing for the CWF. Therefore the whole project properly includes new information about the increasingly uncertain economic benefits of the CWF that are now available by incorporating predicted environmental changes, changing water management priorities by federal water contractors and purveyors, and pending actions by State and Federal Agencies into the FEIR for the CWF. In summary these new uncertainties include:

(1) Predicted significant decreases in inflows to the Central Valley Project's Shasta Reservoir and the SWP Oroville Reservoir in the **4th Climate Assessment** published in late October 2018,

(2) New federal priorities for increased exports from the Delta to the San Luis Reservoir for the benefit of CVP Contractors becomes available from the **US Bureau of Reclamation COA letter** in August and further federal policy directives released in November 2018,

(3) The inability of the CWF in November of 2018 to obtain commitments by the federal government for this funding year for **WWFIA loans** of up to 49% of the latest 19.9-billion-dollar debt estimate for the CWF.

(4) Uncertainty about the future carry over storage and operations at the SWP Oroville Reservoir in the face of an **insuffiency determination made public by the Federal Energy Regulatory Commission (FERC)** regarding DWR's dam safety repairs at Oroville in FERC's October 2018 letter to DWR.

(5) Uncertainties about the regulatory responses to the uncertainties listed above by the State and Federal agencies that in the past have responded to unavailable water supplies to the SWP by reducing export flows from the Delta to the to the San Luis Reservoir for both CVP and SWP Contractors. Although the **State Water Resources Control Board's July 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan** is delayed pending further negotiations, it has not been withdrawn.

In summary, these five issues, are new information released during the period between the close of the CWF NOP comment period and the close of the comment period for this CWF DEIR.

For Plumas these five issues present new and potentially cumulatively significant financial and environmental risks heretofore unanalyzed in past environmental documents for both the CWF and the CEP, and that are currently proposed to remain undisclosed, unanalyzed and unaddressed in the CWF DEIR. *.....CEQA does not require DWR to analyze the proposed project* {CEP} *in combination with California WaterFix as part of a single project in a single EIR because: (1) the proposed project{CEP} and California WaterFix are not a reasonably foreseeable consequence of one another; and (2) the proposed project* {CEP} *has significant independent utility, including independent benefits and independent purposes and objectives."(CEP FEIR, p. 2-7).*

According to DWR Director Nemeth's September 11th testimony this premise is no longer accurate. The insistence by DWR in the CWF DEIR that it has the discretion under CEQA to continue piecemealing and sequencing CEQA in the face of this new information, in effect, allows DWR to continue ignore inconsistencies in its approach to analyzing economic and environmental costs and benefits of the CWF, which in turn, undermines the fundamental basis for achieving the CWF DEIR Project Objectives for maintaining the financial integrity of the SWP and equitably apportioning costs for the CWF (and now including unnamed future SWP projects) after the certification of the CEP FEIR.

Therefore, Plumas recommends the CWF FEIR reconsider the whole project as the CWF and CEP Projects. *"CEQA Guideline § 15378(b) sets forth a list of what the term "project" does not include. Guideline § 15378(b)(4) in the list exempts from being a "project," The creation of government funding mechanisms or other government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment. The government's fiscal activities involved here do involve commitment to a specific project, in fact a number of projects. It is clear under the CEQA Guidelines including § 15378(b)(4) that "the creation of government funding mechanisms or other government fiscal activities" which involve commitment to a specific project or projects which may result in a potentially significant physical impact on the environment, is an activity, a "project," which must be preceded by preparation of a legally sufficient EIR. CEQA must "be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.""*

Specific Comments on the five new issues:

(1) Significant decreases in inflows to the Central Valley Project (CVP) Shasta and the Stage Water Project (SWP) Oroville reservoirs are predicted in the 4th Climate Assessment:
The 4th Climate Assessment warns that the historic patterns of inflow into the SWP's Oroville Reservoir are predicted to decline over the life of the CWF.

From the 4th Climate Assessment:
3.2.2.1 Surface-Water Supplies
The seasonal availability of surface-water supplies will change, with potentially large impacts on local to state-scale water management systems.

The impacts of a changed climate on surface water amounts and timing in the Sierra Nevada have important implications for water supplies. Observed trends towards earlier peak stream flow will likely continue through the 21st century, with peak stream flows arriving 20-40 days earlier than the mid-20th century in many rivers (Stewart et al. 2004, Fritze et al. 2011). Eventually, warming will drive snowmelt into the earliest spring and latest winter months, when the sun is not high in the sky, so that ultimately snowmelt is likely to slow (Musselman et al. 2017). Nonetheless, earlier peak stream flow will result in greater winter flows with attendant enhancements of flood risks, and less stream flow in the longer, drier summers. Declines in summertime stream flow are particularly important because California's Mediterranean precipitation regimes is such that it routinely experiences a "seasonal drought" in summer, a highly predictable dearth of precipitation during the warm seasons. is summertime drought coincides with when both natural and human communities rely on water reserves stored in snowpack or reservoirs to survive until the next wet season is when the fuels that support wild fires cure to their driest points. Thus reductions in summertime surface-water availability place the water supplies for natural and human communities at great risk, as well as elevating wild re risks.

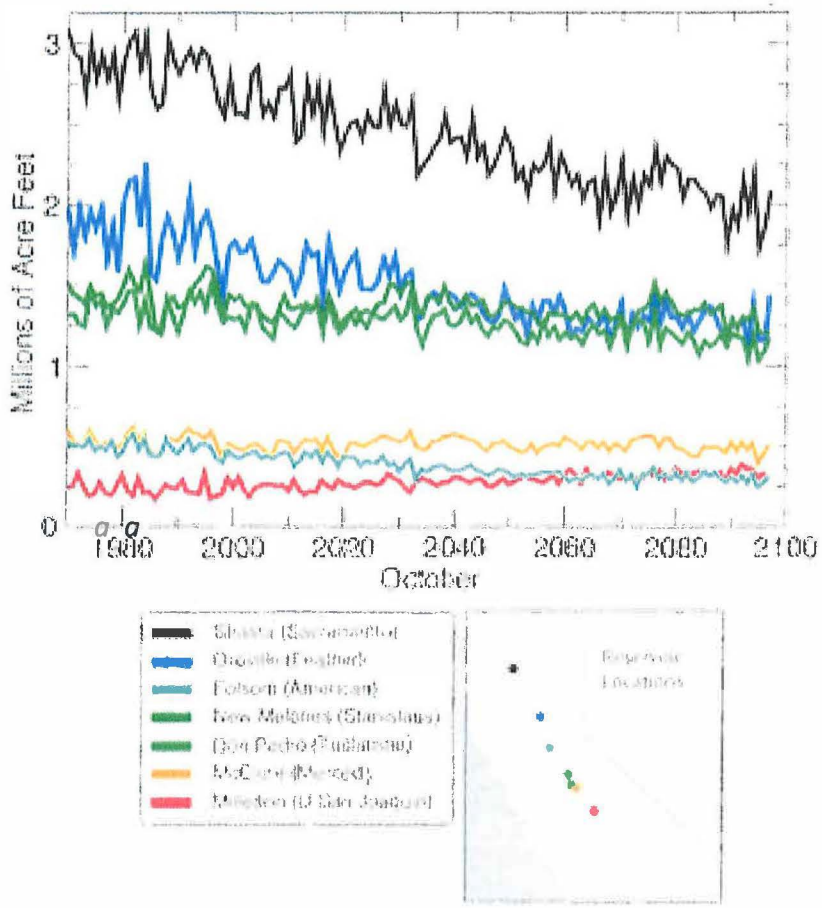
As the source of so much of California's water, management of the Sierra Nevada region's water resources is key to managing water supplies throughout the region and throughout the State. With projected changes in snowpack, snowmelt and stream flow timing (Fig. 2.8), flood risk, evaporation rates, groundwater, and upstream water uses, even the state's largest scale water-storage and conveyance systems may be challenged. Knowles et al. (in review) simulated the effects of the same 10-model ensemble of climate projections presented in Section 2 on water conditions in a modified version of the U.S. Bureau of Reclamation (USBR) and California Department of Water Resources's CALSIM II model of water- management operations by the State Water Project (SWP), USBR's Central Valley Project (CVP), and other less extensive water supplies and conveyances in the Central Valley. e amount of water stored in the major reservoirs of the western Sierra Nevada by the end of the water year (the "carryover storage") gives a useful indication of the resilience of the large- scale systems to manage long-term drought shortages.

Fig. 3.2.2 shows that, on average over projections from ten climate models responding to RCP4.5 and RCP8.5 greenhouse-gas forcings, carryover storage in the largest reservoirs (i.e., Shasta at the head of the CVP and Oroville at the head of the SWP) decline markedly, by roughly one-third over the course of this century. is decline in carryover storage will severely impact reservoir operations, limiting their capacity to ensure adequate water supply for dry years. Declines are smaller farther south, becoming almost nonexistent south of the American River basin (Folsom). Presumably, large declines in the northern Sierra Nevada reflect the dramatic reduction of seasonal storage in the snowpacks of that lower, warmer part of the range (Figs. 2.5 and 2.6). Farther south, snowpacks survive somewhat better, and constraints on reservoir releases to the San Joaquin River and water users in the San Joaquin Valley are such that reservoirs continue to serve at least this most basic of reservoir functions (carryover storage) throughout the century.

(Source: Fourth Climate Change Assessment ***Sierra Nevada Region*** *| 47)*

[Figure 3.2.2 follows on the next page.]

FIGURE 3.2.2



Projected end-of-water-year storages in seven major reservoirs along the western ramparts of the Sierra Nevada (see inset map), from combination of 10-model climate-change ensemble, the Variable Infiltration Capacity hydrologic model, and a modified version of the USBR/DWR Calsim II water-management model (based on data from Knowles et al., in review).

This new information becomes important for this DEIR CEQA analysis because DWR utilizes the "climate change" rationale provided by the Brattle Group in the Sunding Economic Study for five billion dollars in benefits from implementations the CWF in mitigating sea level rise in the Delta predicted for the project life of the CWF.

"DWR modeling indicates that Delta exports are highly sensitive with respect to sea level rise. A rise in sea level means more salinity intrusion from the ocean via the San Francisco Bay,

affecting the water quality of exports and requiring more fresh water to be released from upstream reservoirs to meet salinity standards. By 2100, a 2-foot sea level rise becomes a more important contributor to reduced annual south-of-Delta export than does annual inflow change, a result also shown by Fleenor et al. (2008). The DWR study published by Wang et al. (2011) concludes that sea level rise can be expected to reduce Delta exports by over 119,000 acre-feet annually by mid-century, and by over 520,000 acre- feet annually by 2100. Construction of the WaterFix would prevent these losses by giving water managers the capability to divert water directly from the Sacramento River upstream of the Delta."

It is important to note that the inclusion of the climate mitigation benefits in the Delta creates a positive cost-benefit ratio for the CWF and without the sea level rise protection benefits, the CWF is not a cost-effective investment according to the Sunding-Battle Group's economic analysis. It is also important to note that DWR's only possible rationale for not including and analyzing the predicted effects of climate change on inflows to the CVP's Shasta facility and the SWP's Oroville facility is that this information became available after the July 2017 Certification for the California Water Fix EIR/EIS and DWR's finding that the Sunding-Battle Group's economic analysis s consistent with the DWR's economic analysis guidelines.

DWR argues in the responses to comments for the Contract Extension Project (CEP) FEIR, *"DWR is not avoiding the demands facing the State and the Delta with regard to these issues. As recognized in the DEIR, there are administrative and legislative efforts that address these concerns as part of other comprehensive statewide processes. This EIR does not need to address all issues facing the SWP or the Delta. DWR leaves resolution of these broader issues to other established planning, legislative and regulatory processes. CEQA Guidelines Section 15165 provides that "[w]here one project is one of several similar projects of a public agency but is not deemed a part of a larger undertaking or larger project, the agency may prepare one EIR for all projects, or one for each project, but shall in either case comment upon the cumulative effect. The California Supreme Court held that "an EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects. Absent these two circumstances, the future expansion need not be considered in the EIR for the proposed project." Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal. 3d 376, 396*

Although climate change is not a consequence of the Proposed Project, it does affect the economic benefits analyzed for the Proposed Project that in turn affect the financial affordability of the Proposed Project and the financial integrity of the SWP that it becomes part of with adequate financing. Plumas asks the DWR to use the newly available available science provided in the 4th Climate Assessment in the CWF FEIR to disclose and evaluate new information about a broader range of climate factors affecting SWP operations in the Delta than sea-level rise. The CWF FEIR should discuss the cumulative effect of the full range of

climate change factors on the economic benefits of the CWF as declining inflows and sea level rise affect the physical operations of the SWP over the next 85 years. For reference, economic benefits are based on the following water yields in the Sunding-Brattle Group report which may not be accurate for climate change and other factors as we discuss in further detail below.

Table 2:
Average Annual Yields (Acre-Feet) for
State Water Project and CVP South of Delta Water Service Contractors
in the 9,000-cfs SWP/CVP Scenario

	SWP Agencies		CVP Agencies
	Urban	Agricultural	
Proposed Project	1,992,232	719,733	950,923
No Tunnels	1,547,885	479,000	634,822
Incremental Yield	444,348	240,733	316,101

Source: California Department of Water Resources.

Table 3:
Average Annual Yields (Acre-Feet) for
State Water Project Contractors in the 9,000-cfs SWP Only Scenario

	SWP Agencies	
	Urban	Agricultural
Proposed Project	2,091,829	771,619
No Tunnels	1,547,885	479,000
Incremental Yield	543,945	292,618

Source: California Department of Water Resources.

(2) Federal priorities for increased exports from the Delta to San Luis Reservoir (SLR) for the benefit of CVP Contractors, and

(3) The inability of the CWF to obtain commitments by the Federal Government in this funding cycle for loans of up to 49% of the now 19.9 billion dollar debt estimate for the CWF.

In light of recent actions by the Bureau of Reclamation (BOR) and the Department of Interior (DOI) regarding the supremacy of federal water exports from the Delta it becomes difficult to argue that the CEP and CWF DEIRs are not about management and operations of the SWP and only about financing the management and operations of the SWP **because** both of the CEP and the CWF AIPs concern themselves with allocating SWP storage and deliveries from San Luis Reservoir, and especially concern themselves with carry over storage and banking provisions

and priorities in the San Luis Reservoir times of water surplus and shortage. Below San Luis Reservoir, the CEP and the CWF are interlinked by the shared SWP and CVP storage and conveyance in the South of Delta service areas and they both depend on the "common pool" of the Delta.

Specifically, Plumas argues that given new federal priorities for operations of the CVP, DWR can no longer assert that *"The lead agency has the authority and responsibility to initially frame the scope of its proposed purpose and objectives. As discussed in Response to Comment 5-11, the lead agency is free to limit its proposed objectives to the issues it wants to address and is not obligated to look at broader issues or concerns." (CEP FEIR, p.2-10)*

In the Master Responses to the CEP FEIR, DWR states that *"CEQA does not require an agency to examine a project and objectives that are completely different from the one it has chosen to pursue. This {CEP DEIR} is not an EIR on the operation and maintenance of the SWP...The DEIR does not evaluate issues such as impacts attributed to the operation of the SWP, all of the problems facing the Delta, or activities relating to water conservation and water supply. These would continue to exist even if there were no proposed project. As a result, under CEQA, they are considered part of the baseline conditions and are not environmental impacts of the proposed project. Therefore, in the DEIR DWR is not required to mitigate or consider alternatives for impacts attributed to the on- going operation and maintenance of the SWP. (CEP FEIR, p. 2-7)*

However, Plumas asserts that that legal premise changed on August 17, 2018, when the US Bureau of Reclamation (BOR) sent a letter to DWR opening renegotiations on the Coordinated Operating Agreement (COA). The COA governs the SWP and CVP operations in the Delta and in the San Luis Reservoir. As the BOR letter states,

"There have been numerous meetings over the past two years, which have included Central Valley Project (CYP) and State Water Project (SWP) contractors. This has included considerable productive discussion and sharing of information and data through which we have learned a great deal about our respective operations as they have evolved over the years. At this point, we have concluded the Article 14(a) review process. Unfortunately, we have been unable to mutually agree on revisions to COA for maintaining conformity with the objectives and principles embodied in the 1986 COA and underlying technical studies. Absent mutual agreement on revisions needed to COA, Reclamation respectfully makes this Notice of Negotiations in accordance with Article 14(b)(2). I am designating Mr. Federico Barajas as the Lead Negotiator for Reclamation and request DWR identify their Lead Negotiator. It is suggested the respective leads immediately form their negotiating teams and proceed with negotiations within the next 30 calendar days in order to allow for satisfactory conclusion of an agreement within twelve months of the date of this letter, per COA. "

In a November 19, 2018 letter to the Delta Stewardship Council (DSC), a coalition of environmental groups support the concerns raised by five Counties within the legal Delta by commenting that, *"The WaterFix project is a partnership between DWR and the U.S. Bureau of Reclamation. New, repeated declarations of federal policy to maximize exports, regardless of the consequences for the Delta, have undermined the credibility of any evidence that the Bureau of Reclamation will adhere to the Delta Plan policies, mitigation measures, and "adaptive management" for the project...Water Code § 85320(b)(2)(A) contains specific requirements for incorporation of the project into the Delta Plan including "operational requirements and flows necessary for recovering the Delta ecosystem and restoring fisheries under a reasonable range of hydrologic conditions, which will identify the remaining water available for export and other beneficial uses." Section 85320(b)(2)(B) requires comprehensive review of "A reasonable range of Delta conveyance alternatives, including through-Delta, dual conveyance, and isolated conveyance alternatives . . ." The Delta Reform Act cannot be reasonably construed to make everything in it meaningless if the federal partner in the project should wish to maximize exports...The Presidential Memorandum, along with such other recent federal actions as the August 17, 2018, Secretary of the Interior Memorandum, show that it would require ignoring "practical reality" and defy common sense were the DSC to make a finding that the WaterFix Tunnels project is consistent with the policies of the Delta Plan. The project is a joint one of California's DWR, and the U.S. Bureau of Reclamation. The federal policy is now to maximize exports regardless of the consequences for Delta water flows and Delta water quality. These critical federal documents will have to be officially noticed before any decision could be considered, let alone reached, finding consistency of the Covered Action with the Delta Plan."*

Therefore the CWF FEIR must now address the possibility that changed CVP operations will affect SWP operations in ways that could affect the ability of the SWP to store and deliver SWP water from the Delta to the San Luis Reservoir that is needed to achieve the physical benefits described for the CEP and the CWF and the economic benefits presented in the Sunding-Brattle Group economic analysis for the CWF. Delaying the release and certification of the CWF FEIR until the COA negotiations are concluded and until after the DSC issues its "Findings of Consistency" is one reasonable approach in the face of this new information.

In addition, the Delta Conveyance Finance Authority (DCFA)'s LOI seeking an initial $1.6 billion in funding for the project's design and construction and discussions of securing up to 49 percent of the CWF's total eligible costs through WIFIA loans was denied for 2018. Plumas requests that the DWR delay the CWF FEIR until after DWR Capital Improvements Plan becomes available so that the public can understand the magnitude of debt associated with financing the whole project including the CWF and unanalyzed future SWP projects that the DWR is intending to finance through bonds, loans and user charges using the AIP provisions for the CER FEIR and the CWF DEIR .

(4) **Uncertainty about the future carry over storage and operations at the SWP Oroville Reservoir in the face of insufficiency determinations by FERC regarding DWR's dam safety repairs,**

In October 2018 the Federal Energy Regulatory Commission (FERC) questioned the durability of the repairs to Oroville Dam and Spillway in mega-flood events which are predicted to occur more frequently in the future in the 4th Climate Change Assessment. Although it remains unclear what FERC will require to ensure dam safety under these future circumstances, the presumption of historic carry-over storage in the SWP's largest facility is questionable given the Army Corps' existing requirement for lower carry-over storage at Oroville until safety concerns are addressed by DWR to the satisfaction of the ACOE and the FERC.

(5) Uncertainties about the regulatory responses to the uncertainties listed above by the State and Federal agencies that in the past have responded by reducing export flows

Plumas commented about the proposed revised Delta flows in the State Water Resources Control Boards' Although the **State Water Resources Control Board's July 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan** is delayed pending further negotiations, it has not been withdrawn. As DWR comments in the CEP FEIR, *"When exporting water from the Delta, DWR must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, and regulations relating to reservoir releases and Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other users. The needs of other users include in-Delta users and the water rights of the areas of origin of Delta inflow. These requirements include applicable State Water Resources Control Board (State Water Board) orders, United States Army Corps of Engineers (USACE) permits, Biological Opinions (BiOps) and other regulatory constraints including any relevant judicial orders in effect at the time of the operation. They have established water quality and flow requirements and limits on the rate of export of water that can be pumped by the state and federal pumping plants. Therefore, compliance is included in the proposed project and all of the alternatives analyzed in the DEIR. Approval of the proposed project would not alter the SWP obligation and commitment to comply with all current and future applicable regulatory requirements, including biological opinions and water rights decisions." (CEP FEIR, p. 2-11)* Plumas Commented extensively on the NOP for the CWF DEIR that proposed changes to the Delta inflows and exports could significantly change the water timing and availability of exports from the Delta to San Luis Reservoir and that therefore extending new contracts and financing new projects under the CEQA presumptions of unchanged SWP operations is premature. Since these actions are proposed and pending, the CWF FEIR should be delayed until new regulatory effects on the financial integrity of the SWP are available for analysis. Otherwise the perception and concern by Plumas and others that premature Contract Extensions do preempt agency and legislative authorities over SWP operations in the Delta and the SLR remains unclarified by DWR in the FEIR for the CWF.

(6) Affordability and equity cost-allocation issues: Provide a fair and equitable approach for cost allocation of California WaterFix (and other new SWP Projects.

Now that the CEP and the CWF are one project according to Director Nemeth, there are now

two inconsistent approaches for allocating new project debt identified in the CEP FEIR and in the CWF DEIR that need to be reconciled in the final CWF FEIR. The CWF DEIR AIP reaffirm the proposed PWA governance structure in the CEP FEIR whereby 80% of Contractors determine the allocation of costs for new SWP projects. The CWF AIP also specifically exempts North of Delta PWAs for CWF costs. The CEP FEIR offers no "opt out " provisions for PWAs for future SWP projects apparently authorized with the certification of the CEP FEIR that do not see benefits for their service areas that justify incurring new SWP debt for financing new SWP projects. Plumas has commented on the inequity of this approach for PWAs without "blank check taxing authority in the CEP CEQA process and the EWF CEQA process. Plumas appreciates that DWR notes in the "Response to Comments" in the CEP FEIR, the following statement: *"Given the statutory requirement and the significance of this obligation to the financial integrity of the State Water Project, DWR does not intend to make changes to this provision and expects that the Proposition 13 exemption for prior voter approved indebtedness will continue to apply during the extended term of the Contracts." (CEP FEIR, p. 2-25).* Herein DWR acknowledges that Contractors with "blank check" taxing authority, generally the largest state and federal water purveyors in the SWP and CVP water supply and delivery systems, are also the PWAs that now decide under the CEP FEIR AIP, who benefits and pays for new SWP projects. This creates a foreseeable "worst case" scenario as described for the five issues discussed above, where PWAs that are subject to Proposition 13 and Section 218 voting requirements may not be able to afford their full Table A deliveries if SWP operations and SWP capital improvements costs rise even as their SWP water supplies become less reliable. Over time, the PWAs with blank check taxing authority, under this worst case scenario are positioned to obtain majority shares the State Water Project because of their blank check taxing advantage. Since there is no DWR Capital Improvements Plan available, the SWP PWAs that must justify the financial benefits of additional new debt for new SWP projects on top of existing debt face very difficult circumstances given their Proposition 13 and Section 218 voting obligations. Therefore equity and AIP uniformity reasons and the need to reconcile inconsistencies for the "whole project", now the CEP FEIR and the CWF DEIR; Plumas again requests that "opt out" provisions like those afforded in the CWF AIP be made available for financing future SWP projects that are contemplated in the Contract Extension Project AIP. Consistency is achieved for all SWP PWAs with the highest level of equitable cost allocation among PWAs for new projects through the "opt out" or exemption provisions that the CWF DEIR AIP currently affords.

Plumas-Specific Comments:

Plumas appreciates that DWR's "Responses to Comments" for in the CEP FEIR do address some of the Plumas concerns about being forced to finance new SWP debt without an "opt out" provision in the new CEP contracts. The CEP FEIR states for that DWR will extend the current SWP Contract between the Plumas County Flood Control and Water Conservation District (Plumas) and the Department of Water Resources for another 50 years to 2085, upon receipt on an Article 4 letter from Plumas. *"The current SWP Contracts are not uniform as both Plumas*

County FC&WCD and the Empire West Side ID did not sign the Monterey Amendments and DWR honored the original contracts that they signed without a problem." (CEP FEIR Letter 7-11, p. 160)

"Under the No Project Alternative, DWR takes no action, and DWR and the Contractors would continue to operate and finance the SWP under the Contracts to December 31, 2035. Upon receipt of Article 4 letters from the Contractors (at least 6 months prior to the existing expiration date for each Contract) the term of the Contracts would be extended beyond their current expiration dates. Under this alternative, the Contracts would not expire beginning in 2035. Water service would continue beyond 2035 to all Contractors, consistent with the Contracts including the existing financial provisions. Annual revenue and water supply cost recovery would continue consistent with the current Contracts." Until the Contractors submit their Article 4 letters to extend their Contract expiration dates and the extended Contract expiration date is determined, DWR would not sell bonds with maturity dates past 2035 to finance SWP capital expenditures and therefore the current compression in the recovery of capital costs and the bond financing costs would be exacerbated." (CEP FEIR, p. 2-2)...."Article 4 states that, by written notice to DWR at least 6 months prior to the expiration date of a Contract, the Contractor can elect to receive continued service after the expiration of the term under the following conditions unless otherwise agreed to: (1) service of water in annual amounts up to and including the Contractor's maximum annual Table A amount; (2) service of water at no greater cost to the Contractor than would have been the case had the Contract continued in effect; (3) service of water under the same physical conditions of service, including time, place, amount, and rate of delivery; (4) retention of the same chemical quality objective provision; and 5) retention of the same options to use the SWP transportation facilities as provided for in Articles 18(c) and 55, as applicable. " (CEP DEIR, p. ES-3).

In the CEP FEIR, DWR also clarifies the anticipated benefits of mingling existing debt with new SWP debt for as yet unidentified SWP Projects by identifying near term new SWP Projects: *"These benefits* {of combining current debt with new debt} *include the ability to continue to finance projects such as repairs to the California Aqueduct, replacement of aging pumps, generators, and other equipment and implementing low greenhouse gas (GHG) emission energy projects. Capital project that could be financed in whole or in part by the sale of longer term bonds (if available as the result of Contract extension) include: (1) reinforcing Perris Dam at Lake Perris against seismic failure and maintaining other SWP facilities to current seismic safety standards; (2) reconstructing the Ronald B Robie Thermalito pump-generating plant in the aftermath of a damaging fire to the facility; (3) implementing the Oroville hydroelectric license project; and (4) obtaining a renewed Federal Energy Regulatory Commission (FERC) license for the SWP's southern hydroelectric plants." (CEP FEIR, p. 2-10).*

For reference, the following these Projects are not included in the "1hh" Provisions of the Existing SWP Contracts: *"Article 1 (Existing SWP Water Supply contract) (hh) "Water System Facilities" shall mean the following facilities to the extent that they are financed with water*

system revenue bonds or to the extent that other financing of such facilities is reimbursed with proceeds from water system revenue bonds: (1) The North Bay Aqueduct, (2) The Coastal Branch Aqueduct, (3) Delta Facilities, including Suisun Marsh facilities, to serve the purposes of water conservation in the Delta, water supply in the Delta, transfer of water across the Delta, and mitigation of the environmental effects of project facilities, and to the extent presently authorized as project purposes, recreation and fish and wildlife enhancement, (4) Local projects as defined in Article 1(h)(2) designed to develop no more than 25,000 acre-feet of project yield from each project, (5) Land acquisition prior to December 31, 1995, for the Kern Fan Element of the Kern Water Bank, (6) Additional pumps at the Banks Delta Pumping Plant,(7) The transmission line from Midway to Wheeler Ridge Pumping Plant,(8) Repairs, additions, and betterments to conservation or transportation facilities existing as of January 1, 1987, and to all other facilities described in this subarticle (hh) except for item (5), <Attachment L> (9) A project facilities corporation yard, and(10) A project facilities operation center."

Plumas thanks DWR for offering Plumas the "opt out" provision for debt from new SWP projects that is afforded by extending the existing contract with DWR and including the Plumas Amendment and the final payment to the Monterey Plaintiffs that was stipulated in the Monterey Settlement Agreement.

Thank you for the opportunity to comment.

Submitted by,

Jeff Engle, Chair
engel.dist.5@gmail.com
Governing Board
Plumas County Flood Control and Water Conservation District
and
Plumas County Board of Supervisors

cc. Board of Supervisors, County of Plumas – pcbs@countyofplumas.com
cc. Governing Board, Plumas County Flood Control and Water Conservation District – pcbs@countyofplumas.com
cc. Bob Perreault, Manager, Plumas County Flood Control and Water Conservation District – bobperreault@countyofplumas.com
cc. Randy Wilson, Director, Plumas County Planning Department – randywilson@countyofplumas.com
cc. Craig Settlemire, County Counsel, County of Plumas – csettlemire@countyofplumas.com
cc. Honorable Ted Gaines, Senate District 1
cc. Honorable Brian Dahle, Assembly District 1
cc. Bruce Alpert, County Counsel, County of Butte
cc. Paul Gosselin, Director, Department of Water and Resource Conservation, County of Butte

Letter 4

NDWA
NORTH DELTA WATER AGENCY

January 9, 2019

VIA U.S. AND ELECTRONIC MAIL (CONTRACTAMENDMENT_COMMENTS@WATER.CA.GOV)

Cassandra Enos-Nobriga
Executive Advisor, State Water Project
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Re: Comments on October 2018 State Water Project Water Supply Contract Amendments for Water Management and California WaterFix Draft Environmental Impact Report

Dear Ms. Enos-Nobriga:

To secure the current contractual and individual water rights of Agency landowners to adequate water supply and quality, the North Delta Water Agency (NDWA or Agency) submits these comments on the *State Water Project Water Supply Contract Amendments for Water Management and California WaterFix Draft Environmental Impact Report* (Draft EIR). The Agency appreciates this opportunity to provide feedback on the proposed changes to the State Water Project (SWP) water supply contracts.

In 1973, the Agency was formed by a special act of the Legislature to represent northern Delta interests in negotiating a contract with both the United States Bureau of Reclamation and California Department of Water Resources in order to mitigate the water rights impacts of the Central Valley Project and the SWP.[1] In 1981, NDWA and the Department of Water Resources (DWR) executed the Contract for the Assurance of a Dependable Water Supply of Suitable Quality (1981 Contract). The crux of the 1981 Contract, which remains in full force and effect, is a guarantee by the State of California that, on an ongoing basis, DWR will ensure through the operation of the SWP that suitable water will be available to satisfy all agricultural and other reasonable and beneficial uses in all channels within NDWA's boundaries. Specifically, the State is obligated to furnish "such water as may be required within the Agency to the extent not otherwise available under the water rights of water users."

In addition to enforcement of the 1981 Contract, the Agency has a clear statutory mandate under its Agency Act to assure that the lands within the North Delta have a dependable supply of water of suitable quality sufficient to meet present and future needs. It is with this background that the Agency submits these comments on the Draft EIR.

1

[1] North Delta Water Agency Act (Agency Act), Chapter 283, Special Statutes of 1973.

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1. The Draft EIR is Not Appropriate for Project-Level Approvals of Transfers or Exchanges and Does Not Adequately Analyze the Program Level Impacts to Water Supplies and Quality in NDWA.

The California Environmental Quality Act (CEQA) draws a distinction between a programmatic EIR and a "project EIR," which is "prepared for a specific project and must examine in detail site-specific considerations."[2] Here, the Draft EIR refers consistently to the proposed changes to SWP Contracts as a "project,"[3] but provides only general information about potential transfers and exchanges under the proposed contract amendments. Elsewhere, the analysis performed in the Draft EIR is referred to as "programmatic"[4] because the specific timing and amount of transfers and exchanges that would result from the amendments are not known. For example, the Draft EIR explains that the changes "could result in an increase in transfers from existing conditions," [5] but does not explain how the additional transfers and exchanges would impact water supplies or water quality within the North Delta.

The Agency appreciates that the Draft EIR calls for the appropriate project-level CEQA review for specific transfers and exchanges. Indeed, without details as to the timing, location, and quantity of any given transfer or exchange, the present Draft EIR is insufficient to support project-level decision making on those potentially environmentally significant transfers and exchanges and their attendant impacts. However, the Draft EIR also fails to provide sufficient analysis of the *program*-level impacts to water supplies within NDWA, and in particular the affect that these changes may have on compliance with the 1981 Contract. D-1641 does not have water quality standards in autumn and winter months, but the water quality requirements of the 1981 Contract are in place year-round, and any seasonal fluctuations in water transfers and exchanges through the Delta must be able to assure compliance with the specific salinity criertia under that agreement. NDWA therefore requests that DWR acknowledge its obligations under the 1981 Contract and include the appropriate modeling and effects analysis in the final EIR.

2

2. The Amendments' Relationship to WaterFix Operations Must Be Clarified and Water Supply and Quality Impacts and Compliance with the 1981 Contract Must Be Analyzed.

The description of the proposed project is confusing and at times inconsistent. For example, the Draft EIR explains that because the volume of water delivered pursuant to the SWP contracts is not expected to change, the proposed amendments "would not change SWP operations."[6] But, the amendments are specifically *intended* to change SWP operations by providing greater flexibility in transfers and exchanges within the SWP system, including under WaterFix operations.[7] Elsewhere, the EIR presents these amendments as "a separate and independent project from California WaterFix," with water management actions that "would need to occur

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[2] *Ctr. for Sierra Nevada Conservation v. County of El Dorado*, 202 Cal. App. 4th 1156, 1184 (2012), see also CEQA Guidelines § 15160 (explaining how the content of an EIR may be "tailored to different situations and intended uses"); § 15168 ("[a] program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible.").
[3] See e.g., Draft EIR, at 4-1 to 4-2.
[4] Draft EIR, at 5.1-5.
[5] Draft EIR, at 5.1-6; see also Draft EIR, at 5.1-7 ("[E]xchanges may be used more frequently to respond to variations in hydrology, such as dry-year conditions when less SWP water might be available.").
[6] Draft EIR, at 1-2.
[7] Draft EIR, at ES-3.

regardless of the outcome of California WaterFix.[8] However, the Draft EIR acknowledges that when and if the California WaterFix project is operational, "water transfers would occur using the California WaterFix facilities," and that the impacts of those facilities' operations have already undergone CEQA review.[9] DEIR 5.2-5. The Draft EIR fails to explain how that prior review disclosed the impacts of the SWP operational changes now proposed by the contract amendments.

3 (cont.)

The increased operational flexibility offered by the proposed contract amendments must be considered within the context of the additional operational flexibility that is proposed by the WaterFix project. The Agency requests that DWR clarify the project description to explain how the timing and volume of during all months and water year types of future transfers or exchanges carried out pursuant to the proposed contract amendments would affect the coordinated operation of the SWP and the Central Valley Project with or without the WaterFix project. In addition, DWR must analyze and disclose how those changes in operation might affect the contractual and individual water rights of Agency landowners, including DWR's compliance with the 1981 Contract.

Thank you for your consideration of these comments.

Sincerely,

Melinda Terry,
Manager

[8] Draft EIR, at 1-2.
[9] Draft EIR, at 5.2-5.

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January 9, 2019

SENT VIA EMAIL (ContractAmendment_comments@water.ca.gov)

Cassandra Enos-Nobriga
Executive Advisor, State Water Project
Department of Water Resources
P.O. Box 942836
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RE: Comments to Draft Environmental Impact Report for the State Water Project Water Supply Contract Amendments for Water Management and California WaterFix

Dear Ms. Enos-Nobriga:

These comments on the State Water Project ("SWP") Contract Extension Amendments ("Project") Draft Environmental Impact Report ("DEIR") prepared by the Department of Water Resources ("DWR") pursuant to the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq. ["CEQA"]) are submitted on behalf of Local Agencies of the North Delta, San Joaquin County, and Butte County.

The DEIR's description of the Project does not describe the entire Project and therefore is legally inadequate under CEQA. DWR has improperly limited the scope of the Project description, concealing the underlying impetus for the Project and piecemealing review of the contract amendment process. This Project's true purpose is to facilitate the construction of the Delta Tunnels (a.k.a. the "California WaterFix"), and the EIR must disclose and analyze the associated impacts.

1

Under CEQA, an agency must evaluate the "whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment[.]" (Cal. Code Regs., tit 14, § 15378, subd. (a) ["CEQA Guidelines"]; see also Pub. Resources Code, § 21065.) The entirety of a project must be described, and not some smaller portion of it. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 654.) Moreover, reasonably foreseeable future developments or activities must be included in the project description. (*Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 396 (*Laurel Heights*).)

Here, DWR is engaging in a multifaceted scheme to piecemeal environmental review of the financing, construction and operation of the Delta Tunnels. Along with this Project, DWR also made further amendments to the contracts through the extension process. The Delta Tunnels project is also currently undergoing its own environmental review process. The DEIR here explicitly discloses its relationship to the Delta Tunnels, including in its project description that the Project would establish allocation factors for Tunnels facilities, and identify methods of calculating costs and repayment costs for the Tunnels. (DEIR, p. 4-8.) The contract extensions share similar purposes, including securing financing for ongoing SWP operations and maintenance, along with allowing construction and operation of new facilities. (See Water Supply Contract Extension Draft Environmental Impact Report, pp. 1-2, 4-1, 4-5, 5-4.) Without this Project, and the contract extension amendments, the Delta Tunnels could not legally be built and operated.

1 (cont.)

The DEIR impermissibly treats the contract extensions and amendments as separate actions for purposes of CEQA. "[C]hopping a large project into many little ones" does not minimize their collective impacts. (*Laurel Heights*, *supra*, 47 Cal.3d at 396.) The piecemealing of environmental review of the contract extensions and this Project alone violate CEQA. Even more troubling is DWR's separate treatment of the Delta Tunnels themselves. The Delta Tunnels cannot be divorced from this Project and the extension. Such improper piecemealing of environmental review for the contract amendments, extension, and Delta Tunnels deprives the public of the ability to fully evaluate the impacts of this entire action.

Very truly yours,

SOLURI MESERVE
A LAW CORPORATION

By: Osha R. Meserve
Attorney for Local Agencies of the North Delta and San Joaquin County

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Letter 6

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January 9, 2019

Via Electronic Mail
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Re: County of Sacramento Comments on Draft Environmental Impact Report (EIR) for the State Water Project (SWP) Water Supply Contract Amendments for Water Management and California WaterFix

Dear Ms. Enos-Nobriga:

These comments on the Draft EIR for the SWP Water Supply Contract Amendments for Water Management and California WaterFix ("Amendments" or "Project") are submitted on behalf of the County of Sacramento and Sacramento County Water Agency (collectively, "County"). The County has a compelling interest in the Amendments and the adequacy of the Department of Water Resources' (DWR) environmental review under the California Environmental Quality Act (CEQA) due to the significant impacts to the environment, County residents, and County public facilities that will result from California WaterFix project (WaterFix), which the Amendments are intended to implement. As explained in these comments, the Draft EIR is inadequate because it fails to describe or disclose impacts that will occur with and without the WaterFix, due to changes in the circumstances under which WaterFix and the Amendments will be implemented, from those assumed in the EIR/EIS that the Department of Water Resources (DWR) certified for WaterFix. Those changes include changes to the WaterFix project and its financing, and the circumstances surrounding the WaterFix, including changes to SWP operations from the recently adopted addendum to the Coordinated Operations Agreement (COA) for the SWP and Central Valley Project (CVP) (COA Addendum). 1

I. DWR Has Unlawfully Segmented Its Analysis of SWP Operations With and Without the WaterFix

As noted in several places in the Draft EIR, the purpose of the Amendments is to plan, analyze, design, fund, and construct the WaterFix project. (See, e.g., Draft EIR, pp. 4-8., ES-3, ES-4, citing Project objectives to provide "a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity" (p. ES-3) and establish "California WaterFix facilities allocation factors based on [Public Water Agencies] participation percentages to be used for repayment of planning, construction, operation and maintenance costs associated with California WaterFix" and identify "the methods of calculating costs and repayment of costs for California WaterFix" (p. ES-4). Along with the proposed Amendments, DWR separately made additional amendments to the SWP contracts through the extension process, which is the subject of yet another DWR EIR.[1] It is clear that the Amendments, along with DWR's separate extension of the SWP contracts, are a necessary component of the WaterFix, and WaterFix construction and operation impacts thus are a reasonably foreseeable result of the Amendments. 2

The Draft EIR explains that because the volume of water delivered pursuant to the SWP contracts is not expected to change, the proposed amendments "would not change SWP operations."[2] But the amendments are specifically *intended* to change SWP operations by providing greater flexibility in transfers and exchanges within the SWP system, including under WaterFix operations.[3] Elsewhere, the Draft EIR presents the Amendments as "a separate and independent project from California WaterFix," with water management actions that "would need to occur regardless of the outcome of California WaterFix."[4] However, the Draft EIR acknowledges that when and if the WaterFix is operational, "water transfers would occur using the California WaterFix facilities." (Draft EIR, p. 5.2-5.) And despite the Draft EIR's statement that the Amendments would not change SWP deliveries, a purpose of the WaterFix as stated in the WaterFix certified EIR and Findings of Fact is "to restore full SWP contract deliveries." The Amendments' approval thus enables a fundamental change (expansion of) SWP operations from the existing condition by increasing SWP deliveries to levels not achieved for over a decade and rarely before that. The Draft EIR fails to explain or evaluate the relationship between increased

[1] The contract extensions share similar purposes to the Amendments, including securing financing for ongoing SWP operations and maintenance, along with allowing construction and operation of new facilities. (See Water Supply Contract Extension Draft Environmental Impact Report, pp. 1-2, 4-1, 4-5, 5-4.)
[2] Draft EIR, at p. 1-2.
[3] Draft EIR, at p. ES-3.
[4] Draft EIR, at p. 1-2.

deliveries due to WaterFix and the transfers and exchanges that will be enabled due to the Amendments.

WaterFix impacts, including the impacts of increased SWP deliveries, have not been adequately evaluated or disclosed by DWR, and DWR may not rely on its 2017 certified EIR for the WaterFix, due to significant new information, including changes in the WaterFix facilities themselves and circumstances affecting SWP and CVP operations, that have the potential to result in new or substantially more severe significant impacts than those described in any CEQA document prepared for the WaterFix. Substantial evidence of these impacts has been presented to DWR by the County and numerous other parties to the water rights change petition proceeding for the WaterFix currently pending before the State Water Resources Control Board and in comments on the Draft Supplemental EIR/EIS (DSEIR/EIS) for the WaterFix, and in numerous other proceedings, including the recent Delta Plan Consistency Appeal hearing before the Delta Stewardship Council.

2 (cont.)

II. Changed Circumstances Since Certification of the WaterFix EIR/EIS Render the Draft EIR and WaterFix CEQA Review Inadequate

On December 13, 2018, DWR approved the COA Addendum governing the SWP and CVP operations that dictates substantial changes in SWP operations. Separately, DWR has acknowledged, but not disclosed, changes in WaterFix modeling assumptions. Changes in WaterFix financing affecting water use were adopted by the Metropolitan Water District of Southern California (MWD) in 2018. Also, the U.S. Bureau of Reclamation (Reclamation), the lead agency for the WaterFix under the National Environmental Policy Act (NEPA) and co-petitioner with DWR for the water rights necessary to implement the WaterFix, and almost all CVP contractors have indicated they will not participate in the WaterFix. Each of these are significant changes to the WaterFix and the circumstances under which the WaterFix and SWP will operate from those considered in the Draft EIR/EIS.

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A. Changes Resulting from COA Addendum

Through the COA Addendum, DWR agreed to change four elements of the 1986 COA,[5] including assigning greater responsibility to the SWP to meet in-basin demands in dry and

[5] The 1986 COA is Exhibit GCID-1, available at: https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/petitioners_exhibit/glenn/gcid_1.pdf.

critical years.[6] It also shifts the allocation of export capacity, shifting the balance from 55/45 SWP/CVP to 65/35 CVP/SWP under balanced conditions, and 60/40 CVP/SWP under excess water conditions, along with other changes. In addition, the SWP may reassign 100,000-200,000 acre feet of water per year to the CVP. Despite these changes, DWR approved the COA Addendum with no CEQA review whatsoever, even though the COA itself was the subject of an EIR/EIS (in 1986).[7] These changes in SWP and CVP operations invalidate the modeling assumptions in the approved WaterFix project (CWF H3+), which were based on 1986 COA sharing principles and percentages, with approximately 60% of SWP water and 40% of CVP water being moved through WaterFix facilities, on average.[8] They also invalidate other scenarios for reservoir storage, critical year operations, water temperatures, and water quality and the associated impact analyses in the WaterFix Final EIR/EIS. For example, DWR has not evaluated or disclosed whether, and to what extent the SWP's vastly more limited access to stored water above the Delta in dry and critically dry years would lead to different (likely more severe) water storage, water quality, flow, and temperature effects than presented in the public review Final EIR/EIS for WaterFix.

3 (cont.)

Modeling changes from the public review Final EIR/EIS to the certified EIR/EIS, in particular the change to CWF H3+, resulted in substantially more severe significant impacts to Delta water quality and water supplies, including those of the City of Stockton and North Delta Water Agency, as demonstrated to DWR in the WaterFix water rights change petition hearing. Changes due to the COA Addendum are likely to result in different, and potentially more significant, impacts, depending on how they affect flows into, through and out of the Delta, including the timing and location of diversions from the Delta. New modeling of WaterFix effects in light of these significantly changed circumstances presented by the COA Addendum, and disclosure oif this modeling for public review and comment under CEQA, is required for the public and decisionmakers to understand what impact these changes will have on their water supplies and Delta water quality, and for DWR and SWP contractors to make an informed decision on the Amendments.

[6] Available at: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-Project/Files/Addendum-to-Coordinated-Agreement.pdf.
[7] The environmental review for the COA is Exhibit FOTR-103, available at: https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_103.pdf.
[8] See testimony of Richard Denton, p. 6:26-7:1 (accessible at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/ccc_cccwa/part2_rebuttal/ccc-sc_51.pdf).

B. Changes to WaterFix Operations from MWD Financing and CVP Non-Participation

MWD voted on July 10, 2018 to provide primary financing for the WaterFix. With the MWD Board vote, the SWP share of the Project is 67%, and MWD alone, through a "Master Agreement" with DWR, will finance and control the 33% "unsubscribed capacity."[9] While MWD hopes to lease the "unsubscribed capacity" to CVP contractors, such an assumption is highly speculative given that, to date, the CVP contractors have declined to directly invest in the Project, except for Santa Clara Valley Water District (SCVWD), which has merely expressed an interest in securing 200 cubic feet per second (cfs) of the "unsubscribed capacity," but has not committed to participation. (SCVWD Resolution 18-__, Authorizing Support of, and Participation In, California WaterFix (Adopted May 8, 2018); Agreement Between MWD and SCVWD for an Option to Purchase a Capacity Interest in the California WaterFix (Adopted May 8, 2018).) This evidence regarding current financial arrangements supports an assumption that SWP contractors, including MWD's SWP contractor share and its share of the "unsubscribed capacity," will control 97.8% of the WaterFix capacity, while CVP contractors, through the SCVWD, may control only 2.2% (200 cfs/9,000 cfs) (if SCVWD exercises its option, a purely speculative action that would require compliance with CEQA, including supplemental environmental analysis to correct the deficiencies in the WaterFix Final EIR/EIS and Draft SEIR/EIS). These changes, along with changes in federal participation, described below, are substantial evidence that the likely use of WaterFix capacity will be significantly different than that represented in the Final EIR/EIS. These changes have not been subject to CEQA review by DWR.

4

C. Changes to WaterFix Modeling Assumptions

In addition to changes in SWP operations wrought by the COA Addendum, and WaterFix facility use resulting from Reclamation and MWD decisions, DWR apparently has changed the modeling assumptions relating to WaterFix from those in the certified Final EIR/EIS. The changes were cryptically referenced in an appendix to the July 2018 DSEIR/EIS for the WaterFix, which states at page 3A-6:10-23:

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[9] Staff Report for July 10, 2018 MWD Board Meeting (accessible at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/CDWA%20et%20al/part2rebuttal/sdwa_320.pdf).

> Any clarifications related to modeling assumptions regarding SWP and CVP water delivered through California WaterFix that have occurred after certification of the Final EIR … does not warrant any additional analysis in this Supplemental EIR/EIS. In addition, it should be noted Metropolitan Water District's decision to financially support the unfunded capacity of the project, associated with the potential CVP public water agencies, does not change the model assumptions for California WaterFix. Current information on the record, including Reclamation's continued participation in the [State Water Board] change petition process, the Santa Clara Valley Water District board vote to participate as both a SWP and CVP contractor, and the Metropolitan Water District board's authorization on July 10, 2018, indicates that the most likely scenario for use of this capacity would be consistent with current modeling assumptions.

As the County noted in comments on the DSEIR/EIS, the evidence cited in the DSEIR/EIS does not support the assertion that "the most likely scenario for use of this capacity would be consistent with current modeling assumptions," which the DSEIR/EIS characterizes as anything from a 55/45 split between the SWP/CVP to a 67/33 split. (See DSEIR/EIS, App. 3A, p. 3A-6, fn. 1.) The statements in the DSEIR/EIS ignore Reclamation's own statements from September of 2017, when it notified CVP contractors that it "lacks the legal authority" to fund Project construction: "Accordingly, at this time, Reclamation will not be participating in the construction of [the Project], will not own any of the [Project] facilities, and the [Project] will not be a CVP facility."[10] In response, the overwhelming majority of proposed CVP participants in the Project voted not to participate, citing concerns that the "participation approach" promoted by Reclamation, in which 45% of the Project facilities would be available to participating CVP contractors, was not financially viable. The DSEIR/EIS's statements about Project distribution of water also ignore that "current modeling assumptions" for CWF H3+ model operations are governed by the 1986 COA Addendum sharing principles and percentages, with approximately 60% of SWP water and 40% of CVP water being moved through WaterFix facilities, on average.[11] As noted above, the COA Addendum sharing principles and percentages have changed substantially as a result of the COA Addendum, in conflict with the WaterFix EIR/EIS assumptions and DSEIR/EIS representations. Due to the conflicting information in these various documents, it is impossible to know what the current modeling assumptions are, whether they are consistent with the certified EIR/EIS or reflect reasonably foreseeable SWP/CVP operations

5 (cont.)

[10] See e.g., September 15, 2017 Letter to Norma Camacho (SCVWD) from David Murillo (Reclamation), p. 1.
[11] See testimony of Richard Denton, p. 6:26-7:1 (accessible at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/ccc_cccwa/part2_rebuttal/ccc-sc_51.pdf).

going forward, and thus impossible to know how WaterFix capacity will be used or what the actual WaterFix impacts will be.

As noted in the County's comments on the DSEIR/EIS, the MWD vote neither supports an assertion that WaterFix use would be consistent with a 60% SWP/40% CVP split, nor does it support a 67% SWP/33% CVP split, which the DSEIR/EIS refers to as a "float" approach in the modeling. (DSEIR/EIS, p. 3A-6:11, fn. 1.) And Reclamation's participation in the WaterFix water rights change petition process is not evidence that use of WaterFix capacity would be consistent with WaterFix modeling because (1) Reclamation's involvement is simply an effort to obtain additional points of diversion for its water rights, (2) as noted above, notwithstanding the potential approval of an additional point of diversion for its water rights, Reclamation has determined it lacks legal authority to participate in the Project; (3) no CVP contractor has committed to fund construction or take water from the Project, and (4) neither DWR nor Reclamation have submitted an operations plan in the water rights change petition proceeding indicating the Project will be operated for the benefit of Reclamation. DWR and Reclamation's own modeling shows CVP south of the Delta contractors stand to receive less water on average with the Project in place compared to the No Action Alternative.[12] A December 2018 agreement between the former (Brown) administration and Reclamation promising that CVP customers will not lose any water if the WaterFix is built, but rather be compensated in cash or some other water supply, also has not been evaluated under CEQA, including the amount and source of the unidentified other water supply, nor has the effect of DWR and Reclamation's agreement regarding implementation of the SWP/CVP 2018 Biological Opinions.

The new financial arrangement that results in MWD's control of the WaterFix and redirection of CVP water for SWP uses will drive use of WaterFix capacity in a way that may result in water supply and environmental impacts that were not analyzed in the Final EIR/EIS, and have not been analyzed in the DSEIR/EIS, or the Draft EIR. Changes in the amount of water delivered to a location constitute physical changes to the environment, and those physical changes have not been analyzed to date.[13] A reduction in CVP south of Delta deliveries, by

5 (cont.)

[12] Developments After Publication of the Proposed Final Environmental Impact Report, July 2017, p. 141, Fig. 14 (accessible at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/swrcb_staff/feir_developmentsJuly2017.pdf).

[13] See also Pub. Resources Code section 21060.5 (" 'Environment' means the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water ....").

DWR's own acknowledgment, will cause environmental impacts that have not been evaluated.[14] A DWR/SWP-only (or significantly reduced CVP) project also has potential operational limitations that DWR has not analyzed, including potential impacts to upstream storage as a result of federal and state delivery allocations. For example, because the modeling for the approved Project (CWF H3+) assumed a 40% dedication of capacity for CVP flows, on average, and a maximum dedication of 51%, that modeling fails to adequately simulate either the relative releases from the CVP upstream reservoirs and the SWP's Oroville Reservoir, or the flows in the rivers downstream of those reservoirs and into the Delta that will occur if the CVP dedication is zero (as suggested by the September 2017 Murillo letter) or otherwise significantly lower than 51% (as suggested by the MWD financing arrangements).[15] Changes in upstream reservoir levels have the potential to result in significant municipal and agricultural water supply impacts in upstream communities, as well as groundwater impacts, as reduced surface water supplies are likely to increase reliance on groundwater resources. Likewise, the WaterFix's mitigation measures and impacts analysis are premised on commitments from Reclamation and DWR as joint operators. If Reclamation does not participate in WaterFix, those mitigation measures will need to be reformulated and reconsidered to ensure that water supplies are not impacted.

5 (cont.)

III. Conclusion

The processes that DWR has treated as separate for purposes of CEQA (Amendments, SWP contract extension, WaterFix, COA Addendum) are integrally related and will lead to changes in SWP operations that will have significant, or potentially significant environmental impacts. Yet there has been no cohesive or coherent analysis or disclosure under CEQA of SWP or WaterFix operations as they will occur going forward under the Amendments, including with the transfers and exchanges that are mentioned but not analyzed in the DEIR, and the changed SWP operating conditions dictated by the COA Addendum. DWR has thus failed to evaluate the "whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment[.]" (Cal. Code Regs.,

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[14] See Final EIR/EIS, p. 30-58 (No Action Alternative would cause greater differences between regional water demands and the available water supplies, and would "likely cause greater indirect environmental effects associated with replacement water supplies for the reduced CVP and SWP in the six hydrologic regions").

[15] Exhibit CCC-SC-51 from the water rights change petition proceeding, at p. 7:22-24 (accessible at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/ccc_cccwa/part2_rebuttal/ccc-sc_51.pdf) (observing that "if the CVP use of the twin tunnels is limited, releases of stored water from Shasta and Folsom Reservoirs are likely to be less than in CWF H3+ modeling, and the drawdown of Oroville Reservoir by the SWP is likely to be greater."); see also CCC-SC-52, Figure 2 (accessible at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/ccc_cccwa/part2_rebuttal/ccc-sc_52.pdf)

tit. 14, § 15378, subd. (a) ["CEQA Guidelines"]; see also Pub. Resources Code, § 21065.) The entirety of a project must be described, and not some smaller portion of it. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 654.) Moreover, reasonably foreseeable future developments or activities must be included in the project description. (*Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 396 (*Laurel Heights*).) As a result of DWR's multipronged approach to environmental review of the financing, construction and operation of the WaterFix, DWR has deprived the public and decisionmakers of relevant information about the potential impacts of the Amendments, including impacts to Delta and upstream water supplies and Delta water quality, and it is not possible for the County to understand the effects of the Amendments on County resources and the environment.

A complete, coherent and accurate description of SWP operations as they will occur with and without the Amendments (including an accurate description of the No Project Alternative and its effects), including with the WaterFix as currently proposed to be financed and operated (controlled by MWD), and a clear and accurate discussion of impacts to water supplies and water quality above, in and south of the Delta, is required before DWR can approve the Amendments or move forward with the WaterFix. A new draft EIR that clearly describes, in a single document, the reasonably foreseeable SWP operations under the proposed contract Amendments, including the separately approved extensions, with and without WaterFix, and that clearly discloses the full extent of impacts of the WaterFix project, must be prepared to analyze, disclose, and fully mitigate all significant environmental impacts. The new EIR must incorporate the significant new information about the changes in WaterFix financing and associated changes in south of Delta water deliveries, and changed SWP and CVP operations resulting from the COA Addendum and other Reclamation and CVP contractor decisions regarding WaterFix participation, into the project description, baseline, impact analyses, and alternatives, as appropriate.

6 (cont.)

Where limits to the analysis exist (such as the ability to provide detailed analysis of the transfers and exchanges that will occur as a result of the Amendments), DWR must commit to requiring full project-level CEQA review prior to any SWP water transfers and exchanges can take place. 7

Sincerely,

Kelley M. Taber

KMT:mb

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January 9, 2019

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Re: Comments on the Draft Environmental Impact Report for the State Water Project Water Supply Contract Amendments for Water Management and California WaterFix

Dear Ms. Enos-Nobriga:

These comments are submitted on behalf of the South Delta Water Agency ("SDWA") and the Central Delta Water Agency ("CDWA") with regard to the State Water Project ("SWP") Contract Extension Amendments, the ("Project") Draft Environmental Impact Report ("DEIR") prepared by the Department of Water Resources ("DWR") pursuant to the California Environmental Quality Act (Public Resources Code §21000 et. seq. {"CEQA."} SDWA and CDWA previously submitted comments on Draft Environmental Impact Report for the Water Supply Extension Project.

The DEIR contains an incomplete and therefore inadequate project description. The true and obvious purpose of the Project is to facilitate the implementation of the California WaterFix. Therefore, the DEIR should disclose and evaluate the impacts associated with same. Moreover, the DEIR impermissibly attempts to mask the impacts of the Project by treating the underlying SWP Contract Extension, and the Amendment, as separate projects for the purposes of CEQA review. In fact, the differences between the Contract Extensions and the Amendments are minimal and they should be analyzed as part of a single project. DWR has impermissibly engaged in piecemealing the environmental review of the Contract Extensions and the Amendment. Chopping a large project in many little ones does not minimize their collective impacts. *(Laurel Heights, 47 Cal.3d 3rd at 396.)* Impermissible piecemealing is exacerbated by the fact that DWR is also analyzing the California WaterFix as a separate project.

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The DEIR, by failing to describe the Contract Extension, and the Amendments together, has failed to provide an adequate project description. As such, DWR has improperly limited the scope of the project description in an attempt to shield the Project's impacts from a complete analysis. CEQA requires that an agency must evaluate the whole of any action which has a potential from resulting in either direct physical change in the environment or a reasonably foreseeable and indirect change in the environment. (See CEQA guidelines section 15378 (a). 1 (cont.)

Water transfers, and particularly long-term water transfers, are often inconsistent with water right priorities. Junior water rights holders are often able to purchase large amounts of water from senior water rights holders particularly during times of shortage. As such, said transfers may have direct and indirect impacts on senior water right holders and on the watershed as a whole. The DEIR fails to recognize and therefore analyze such impacts. As such, the DEIR is legally insufficient. 2

Comments specific portions of the DEIR and the Agreement In Principal, (Appendix A), are set forth below:

Appendix A – Draft Agreement In Principle

The Proposed Project and Water Supply Contract WaterFix Amendment are Missing "Definitions of Terms" which violates State Contracting Manual policy that Require Sound Business Practices and Results in an Incomplete Analysis and Disclosure of Impacts. There are no "Definitions of Terms" in the Water Supply Contract WaterFix Amendment. All terms and definitions within the Contract must be defined as is standard and sound business practice that the California Contract Manual Requires, see section 4.02(a). The definition of terms in the contract can alter the impacts of the project. As an example, "Need" within the Basic Criteria for a proposed water transfer or exchange should define a boundary condition on the quantity of water that can be transferred. Proposed Project Objective #1 (Appendix A, page 1) states that the objective of the project is to "clarify terms". In order to meet the project objective to clarify terms, the terms must be supplied with agreed upon definitions. 3

All critical, subjective or interpretable terms utilized in the AIP must be defined. Critical and interpretable terms utilized in the AIP that sound business practices dictate must be defined include, but are not limited to:

- "PWA" (1.1) although undefined, it appears to include only SWP Water Contractors. In order to be consistent with DWR's Public Trust Doctrine obligations for all Californian's, the definition of PWA must include all Water Agencies, regardless of SWP Water Contractor membership.
- "Temporary" (1.1) means "lasting, existing, serving, or effective for a time only; not permanent" (dictionary.com)
- "Transfer package" (1.2) must be defined
- "Transfer agreement" (1.2) must be defined
- "consideration of hydrology" (2.1) must be defined to be meaningful, clear or enforceable

- "Table A water" (3) must be defined
- "Carryover water" (3) must be defined
- "Transparent" (3.2.1), must be defined as "Open to public scrutiny; not hidden or proprietary" This means all Water Agencies that are potentially affected by water transfers or exchanges must be provided equal access as PWAs, regardless of SWP membership.
- "Harm" (3.2.2) must be defined as "not adversely affect" and to specifically include financial, water agency operations and maintenance, water right and water quality impacts. This protection must apply to all Water Agencies, regardless of SWP Water Contractor membership as per DWR's Public Trust Doctrine obligations to all Californian's.
- "Non-participating PWA" (3.2.2) must be defined to be inclusive of non-SWP Water Agencies.
- "PWA service area" (3.2.3) must be defined to be inclusive of non-SWP Water Agencies.
- "Normal" (3.2.5) must be defined
- "Impact" (3.2.5) must be defined
- "Need" (3.2.7, 3.8.2, 5.2, 5.2.5, 5.2.7,) Mirriam-Webster Dictionary defines "Need" as "1) necessary duty: obligation, 2) a lack of something requisite, 3) a physiological or psychological requirement for the well-being of an organism, 4) a condition requiring supply or relief". Webster offers additional definitions of "need", "a state of extreme poverty or destitution, a condition requiring relief". These definitions reasonably fit the purpose of the qualification of the purpose of a transfer or exchange, but the term must still be defined in the contract in order to meet California Contracting Manual requirements (section 4.02(a)). Fortunately, there is a definition of "need" relevant to California water supply that is also consistent with the above definitions – see WATER CODE - DIVISION 1. GENERAL STATE POWERS OVER WATER, CHAPTER 1. General State Policy 106.3-related comments. The source of the definition of Need within the context of water supply is the "amount of water required for basic human health and safety". The definition of "need" is in contrast to the definition of "want" which includes 1) to feel a need or a desire for; wish for, 2) to fail to possess especially in customary amount. The definition of terms must be clear on "need" vs. "want" for determining if a water transfer or exchange meets the Basic Criteria for a water transfer or exchange. "Need" in AIP section 5.2 must be defined as "the quantity and duration of water transfer or exchange, sufficient in combination with all other feasible sources of water supply, conservation and reductions in demand; to meet Basic Human Health and Safety".
- "Certain standard provisions" (3.5) must be defined or the statement is meaningless in the Agreement which is not a sound business practice as required by State Contracting Manual section 4.02(a).
- " believes" (4.3, 4.4) is a subjective term that should not be utilized in a contract as a sound business practice
- "informed" (4.3, 4.4) is a subjective term that should not be utilized in a contract as a sound business practice

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Section 1.1 - PWA's must Not Be Allowed to Determine Duration of Water Transfers or Exchanges. "The Delta Protection Act, enacted in 1959 (not to be confused with the Delta Protection Act of 1992), declares that the maintenance of an adequate water supply in the Delta to maintain and expand agriculture, industry, urban, and recreational development in the Delta area and provide a common source of fresh water for export to areas of water deficiency is necessary for the peace, health, safety, and welfare of the people of the State..." (DWR California Water Plan Update 2013, Volume 4, page 6, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Volume4/background/07Water_Allocation.pdf) (Emphasis added) Water Code Section 1810(c), "Any person or public agency that has a water service contract with or the right to receive water from the owner of the conveyance facility who has an emergency need may utilize the unused capacity that was made available pursuant to this section for the duration of the emergency." The Delta Protection Act defines that water transfers and exchanges are for the duration of an emergency. DWR with its Public Trust Doctrine obligations must determine the duration of a water supply emergency, not the PWA's as the PWA's do not have Public Trust Doctrine authorities over water resources in California. 4

Section 1.1 - Repeated "One Year Transfers or Exchanges" Must Not Be Allowed in the Terms and Conditions of the WaterFix Amendment. Water transfer requirements allow "temporary transfers" of one year of duration or less to be exempt from CEQA. (Bulletin 160-93, The California Water Plan Update, October 1994) The SWP water supply contract amendments must address the repeated use of one-year transfers to side-step the CEQA requirements which circumvent the environmental review of impacts that occur from these repeated water transfers. To prevent abuses of repeated one-year transfers designed to avoid environmental review requirements, the terms of the AIP and Proposed Project must explicitly prohibit back-to-back repeated one-year transfers. Even skipping a year or two between repeated transfers would still facilitate and encourage "gaming" of transfers to avoid environmental compliance so a prohibition of at least three years between repeat transfer transactions must be implemented in the Amendment. Additionally, reciprocal transfers or exchanges where two or more exporters alternate one-year water transfers or exchanges between multiple recipients must also be prohibited from gaming to avoid environmental compliance review. As an example, Water Contractor exporters "A" and "B" cannot be allowed to alternately do one-year water transfers or exchanges to Water Contractor recipients "C" and "D" in alternate years (i.e., Year 1 - A transfers to C and B to D and in year 2 A transfers to D and B to C). The current language of the AIP leaves this CEQA compliance avoidance gaming loophole wide open and it must be prohibited in a revised AIP and DEIR. All water transfers and exchanges, regardless of duration, should be subjected to full environmental compliance review. 5

Section 1.1 - Multiyear Transfers or Exchanges and Transfer Packages Must be Analyzed at a Project Level of Detail Prior to Any Potential Approvals. Water Transfer Packages must be defined at a project-level of detail so that the impacts of both the initial transfer and the subsequent transfers or any return transfers in the future are all fully analyzed in the CEQA process for their quantitative environmental impacts. In order for a water transfer or exchange to be analyzed at a project level of detail to support a non-programmatic EIR, all the water transfer or exchange project 6

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descriptions must include at least, but not limited to: location of source water, quantity of water to be transferred or exchanged, destination of water, date of water transfer, water operations for the transfer, hydrologic conditions during the transfer, carriage water required for the operations based on conditions at the time of transfer, evaporation losses incurred (especially with respect to storage duration and time of year of the transfer) and calculated (not estimated) conveyance losses. It is inappropriate for DWR to approve an initial transfer that has specific project details and at the same time approve a subsequent transfer that lacks sufficient specificity such that it cannot be fully analyzed for its potential environmental impacts. If DWR does approve future transfers with lack of project-level project description and analysis, then the approval of the later part of the "transfer package" would be predecisional and violate CEQA. Analyzing the return transfer at a later date is piece-mealing of environmental impacts which is also a violation of CEQA.

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Section 1.1 - PWA's Should Not Be Allowed Long-Term Water Transfers or Exchanges. Long-term water transfers is in conflict with DWR Policy on Water Transfer Duration. "DWR encourages and facilitates temporary transfers of water using SWP conveyance facilities for long-term SWP water contractors and other agencies to help meet local, State, and environmental water supply needs." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-project/Management/Bulletin-132/Bulletin-132/Files/Bulletin-132-2011.pdf, page 116, last paragraph) The proposed multi-year, long-term or for the term of the Water Supply Contract water transfers or exchanges is in conflict with DWR's published policy of facilitating temporary water transfers. DWR must revise the AIP and Proposed Project to be consistent with the policy of allowing only temporary water transfers or exchanges. "Temporary" is defined as "lasting, existing, serving, or effective for a time only; not permanent" (dictionary.com) so only single year transfers meet this current DWR published water transfer duration-related policy. Transfers for the duration of the Water Supply Contract are incompatible and inconsistent with DWR policy. This contract Amendment must be revised to be consistent with this long-standing DWR policy on temporary water transfers and exchanges.

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Section 1.1 - Long Term and Permanent Transfer of Water Terms in the AIP and Proposed Project Violate Area of Origin Protections. "During the years when California's two largest water projects, the CVP and SWP, were being planned and developed, area of origin provisions were added to the water code to protect local Northern California supplies from being depleted by the projects." "Watershed protection statutes are provisions that require that the CVP and the SWP not deprive those in a watershed from the future beneficial water needs." (DWR California Water Plan Update 2013, Volume 4, page 6, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Volume4/background/07Water_Allocation.pdf) These Area of Origin statutes make it clear that water transfers must not impair current or future beneficial uses of water in the areas of origin . Since future demands for beneficial uses of water in the area of origin are uncertain, the assumptions of future needs must necessarily be conservative and error on the side of being overly protective. Only short-term transfers should be allowed to ensure area of origin priorities are protected.

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Climate change increases the likelihood that any long-term or permanent transfers (Appendix A Section 11) of water rights would impair the future water supply needs in the area of origin and result in a violation of these Area of Origin Protection statutes. DWR's Climate Change Safeguarding Plan provides an established agency policy basis which must be utilized in evaluating climate change for protecting area of origin rights from long-term or permanent water transfers and exchanges. "Climate change adds new vulnerabilities and exacerbates historical challenges to California water management." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Volume4/climate-change/17Safeguarding_CA_Plan.pdf, page 231, paragraph 1) (Emphasis added) "The major impacts of climate change on California's water sector may be changes in the timing, form, and amount of precipitation, changed runoff patterns, increases in the frequency and severity of extreme precipitation events (floods and droughts), and sea level rise. These impacts can negatively affect both water supplies and water quality. Climate changes may also change water demand..." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Volume4/climate-change/17Safeguarding_CA_Plan.pdf, page 232, paragraph 5) (Emphasis added) "The data are irrefutable: California's hydrology is already changing due to global climate shifts. The vulnerability of the water sector to climate change stems from a modified hydrology that affects the frequency, magnitude, and duration of extreme events, which, in turn, affect water quantity, quality, and infrastructure." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Climate-Change-Program/Files/safeguarding-california-plan-2018-update.pdf, page 188, paragraph 1) "Higher temperatures will mean that more precipitation falls as rain instead of snow, and the remaining snowpack melts and runs off earlier in the year. Delays in snow accumulation and earlier snowmelt will have many related impacts including impacts on water supplies, natural ecosystems, and winter recreation. While flows may be higher in winter, water levels in waterways and reservoirs may be lower in spring and summer; water supply for a variety of uses including hydropower and energy generation, agriculture, recreation, and environmental uses will likely be reduced during the times of year when it is most needed." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Volume4/climate-change/17Safeguarding_CA_Plan.pdf, page 232, paragraph 3) (Emphasis added) "Droughts are also expected to increase in frequency, duration, and intensity; and drought affects all sectors - impacting public health, biodiversity, agriculture, and the economy." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Volume4/climate-change/17Safeguarding_CA_Plan.pdf, page 234, paragraph 1) (Emphasis added) Since DWR's Climate Change Safeguarding Plan predicts reductions in water supply from changes in precipitation patterns, increased frequency and severity of droughts, and increased water demands; more conservative and protective assumptions must be made regarding the amounts of water supplies that are required in reserve for future need to protect area of origin priorities. Climate change impact analysis contains large degrees of uncertainties as well as larger ranges of temperature and precipitation conditions than have been historically observed. Impact analysis models are developed utilizing observed climate and hydrologic conditions. Models are useful tools for analysis of conditions that occur within the range of data that were used to develop them as they are calibrated and tested against real data to validate them. Models become extremely unreliable when assumptions of conditions that drive the model analysis

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are outside of the range of conditions that were used to develop them as there is no way to calibrate, test and evaluate the accuracy of model predictions that occur outside of the observed data tested model parameters. Given that the best available science and models to predict and evaluate climate change impacts are unreliable and unverifiable, long-term or permanent water transfers cannot be reliably evaluated for climate change impacts in compliance with these Area of Origin Protection legal requirements. The AIP and Proposed Project must be revised to prohibit long-term and permanent water transfers as they cannot demonstrate that they will not violate area of origin priorities. Prohibiting long-terms or permanent transfers and exchanges docs not diminish the ability of the project to meet project objective #1 (Appendix A, page 1). DWR must adhere to its own published policy for addressing climate change with regard to water transfers and exchanges, "Temporary shortages during drought may also be addressed by firming up existing water transfer agreements and entering into spot transfer or short-term water transfer agreements." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Volume4/climate-change/17Safeguarding_CA_Plan.pdf, page 235, paragraph 3) (Emphasis added)

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Section 1.1 - Long-Term Water Transfers are Growth Inducing and Must Not Be Allowed in the WaterFix Amendment. Long term water transfers up to the duration of the new Water Supply Contract are Growth Inducing and the implications same are not addressed in the AIP. California law requires housing developments provide a guaranteed 20-year water supply. The long-term water transfers proposed by the AIP extend well beyond 20 years resulting in growth inducement that would otherwise not occur. Section 15126.2(d) of the CEQA Guidelines provides that a growth-inducing impact could occur if: ...the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects that would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in the service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects."

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The California WaterFix EIR/S asserts the CWF would be not be growth inducing because the project would not deliver new water. However, he proposed long term water transfers proposed by the Amendment creates additional water supply. With the DEIR fails to recognize, and thus, mitigate such impacts.

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An additional implication of the long-term transfer is that once houses are built and occupied based on the initial 20-year water transfer, when the contract expires, the development becomes part of the base requirement to satisfy water supply for human health and safety. It it inconceivable to assume the State would leave a community without water supply for basic human health and safety, so any long-term water transfer that results in growth inducement for all intents and purposes becomes a permanent water transfer and a hardened water supply demand. Such impacts are not analyzed in the DEIR.

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Long term water transfer or exchange agreements incentivize south of delta PWAs to buy land or even whole water districts north of delta to semi- or effectively permanently transfer water from the north to the south. If long term water transfers are allowed, the south of delta Water Agencies would be economically incentivized to purchase properties for their water rights to transfer the water than to buy water on the open market on an annual or shorter-term basis. In a previous version of the AIP, there was a proposed provision to exempt transfers from within the same ownership. It is obvious from this previously proposed provision that the PWAs were already contemplating these water property acquisitions and looking to exempt those from the water transfer process and requirements. Long term water transfers encourage south of delta water interests to purchase north of delta water properties, so those properties can be idled, taken out of agricultural production, and those water supplies transferred south. The DEIR fails analyze, disclose or mitigate the impacts of long-term water transfers and the resulting property purchases and changes in land use that will result therefrom. Prohibiting long-term water transfers or exchanges (section 1.1) and permanent transfers (section 11) will contribute to minimizing this significant project impact. Avoidance and minimization of significant impacts is a CEQA requirement. Prohibiting long term and permanent water transfers still allows the reasonable accomplishment of Project Objective #1 (Appendix A, page 1).

The DEIR is required to evaluate, disclose and mitigate the indirect impacts (i.e. land use conversion, growth inducement, etc.) of the project from facilitating long-term water transfers. "A project may have some characteristic that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. For example, the construction of a new sewage treatment plant may facilitate population growth in the service area due to the increase in sewage treatment capacity, which may lead to an increase in air pollution from man-made mobile and stationary sources. Section 15126.2(d) of the Guidelines concludes by cautioning the planner that "It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."" (http://www.dot.ca.gov/ser/cumulative_guidance/ceqa_guidelines.htm) Growth in an area may result from the removal of physical impediments or restrictions to growth. In this context, physical growth impediments may include nonexistent or inadequate access to an area or the lack of essential public services such as water or sewer service. https://loomis.ca.gov/wp-content/uploads/2018/06/Loomis_Costco-DEIR-5.0-Other-CEQA.pdf The long-term transfers contemplated by the Project remove barriers to growth, facilitate growth, harden demand, and result in large scale land use changes which have not been adequately analyzed in the DEIR.

Excess capacity facilitated water transfers are growth inducing if for more than 1-year duration. The current water supply contract allows use of excess capacity for water transfers and exchanges. The use of excess capacity is growth inducing and encourages water transfers/sales from northern to southern California. Excess capacity usage is growth inducing and this option must be dropped in the water supply contract amendments or the environmental impacts of this growth inducement and other environmental and beneficial use-related impacts must be evaluated, disclosed, and mitigated.

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Section 1.1 - Long –Term Water Transfers Reduce Water Supply Reliability. The time for the overstated Table A contract amounts, the supply of unclaimed water and vague Article 21 "interruptible water" should be ended instead of continuing to manipulate supplies in a manner conducive to creating hardening of demands for unavailable water, see "State Water Project Final Delivery Capability Report 2015" (DWR July 2015). Intermittent and unreliable supplies from water transfers from the project encourage and soon develop into hardened demands to induce urban growth and increased plantings of permanent crops. Long term water transfers actually reduce water supply reliability by allowing a "want" for more water to harden into a long-term "need" for more water. Short term one-year duration water transfers facilitate meeting actual real and current water supply needs that provide for the health and safety of Californian's as PTD obligates DWR to protect. Long-term water transfers reduce the amount of water potentially available for short term transfers that meet real need. Since long-term water transfers "wants" harden into future water supply demand and these long-term water transfers are at the expense of the ability to meet short term real water supply needs, long-term water supply transfers must not be allowed as they are in direct conflict with DWR's PTD obligations to protect water supplies for public health, safety and welfare. Moreover, long term water transfers are typically inconsistent with established water rights priorities. 12

Section 1.1 - The DEIR's Analysis of Climate Change Impacts to Long-Term Water Transfers is Deficient. Since water transfers are proposed to be as long as the duration of the contract (section 1.1) or permanent (section 11), the EIR impact analysis must employ a rigorous and defensible inclusion of climate change assumptions in the impact modeling and analysis. DWR failed to complete a legally compliant climate change analysis for the WaterFix EIR and thus it is improper for the DEIR to rely upon that document for these purposes. 13

Section 1.2 - DWR Must Not be Prohibited From Reclassifying a Proposed Water Transfer or Package as an Exchange. DWR must not abrogate its review and approval authority, including correctly classifying Water Transfers and Exchanges. "A duty is imposed on government to account for its actions or approvals of a diversion or use by making duly recorded findings based on adequate information concerning the effects of a proposed use to assure that there is no unlawful alienation or transfer for private purpose and no material impairment of public trust waters or uses." (http://flowforwater.org/public-trust-solutions/public-trust-principles/, #3)

DWR has an obligation under its Public Trust Doctrine (PTD) responsibilities to protect water resources and beneficial uses of water for all Californian's. DWR is violating its PTD obligations by abrogating its authority under the current Water Supply Contract to determine the water transfer or exchange classification. In the AIP and the Proposed Project, the Water Contractor submitting the transfer or exchange is given exclusive authority to self-designate the water transfer or exchange type with no provision for DWR to override self-serving decisions of the Water Contractor to characterize all water transactions as "transfers" instead of "exchanges". From the perspective of the Water Contractors, exchanges have undesirable costs and constraints for return ratios (section 2.1) so they are materially motivated to classifying any and all water transactions as transfers. DWR's abrogation of its PTD obligations by allowing the Water Contractors to 14

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unilaterally classify water transfers or exchanges does not accomplish anything with regards to the stated project objectives. 14 (cont.)

Section 1.2 - DWR violates California Contracting Manual policy requirements in its abrogation of its current from the existing Water Supply Contract terms. DWR has received no compensation or concessions in return for seeding its current authority and discretion as the State water resources management Lead Agency to the Water Contractors. Giving a concession in a contract with no compensation or offsetting concession, is not valid under Contract Law and is definitely not a sound business practice.
DWR should not abrogate its authority to reclassify a Transfer Package or a Water Transfer as a Water Exchange. Allowing the PWA to unilaterally decide if a set of transfers qualify as a package or that an exchange is actually a transfer without the ability of DWR to correctly reclassify them per the definitions of a transfer package, transfer and exchange, provides the opportunity for abuse and sidestepping the process and requirements (i.e. return ratio requirements for water exchanges) that are specific to each of these categories. There is significant profit motivation for PWAs to submit water exchanges to be classified instead as water transfers. In a water exchange, the PWA is paid back in future water supply based on the current year water supply. In a water transfer, the PWA is paid in cash. If it is not the intent of the PWAs to sidestep the process requirements of an exchange or to aggregate transfers into a package when they should otherwise be treated as separate transfers, they would not have requested this language that precludes DWRs from its otherwise rightful authority to evaluate the proposed water transfer or exchange and correctly classify it. The purpose of differentiating a transfer from an exchange is to have as many water transactions as possible be classified as an exchange as an exchange reduces the risks to the public from future water supply shortages. If a PWA transfers/sells too much water because it was greedy and then later comes up short in its water supply, it will be DWR and the other PWAs, including those that benefit form area of origin priorities, that will bear the burden and impacts of their mistake. 15

Water exchanges, as opposed to transfers, encourage resource sharing and load leveling of scarce water resources which is in the public trust interest. Water transfers are driven by economic might which is often the opposite of the public trust interest. DWR, as the water resource public trust agency, must protect the limited water resource in California so that water exchanges are utilized for the public good rather than being eroded by private water transfer profit.

M&I water users can always afford higher water costs than agricultural water users. To allow profit driven water transfers, especially ones which should correctly be classified as exchanges, inevitably leads to M&I consistently buying water supply from Agriculture or consistently outbidding agricultural in the water transfer market. This misclassification of water transfers over exchanges would allow water to flow to money instead of proven need which results in wholesale land use, changes reduction of the tax base, and disproportionate minority populations to be significantly adversely affected. DWR is a public trust resource agency with a responsibility to protect the water supply for the greater good of California which is why exchanges exist. DWR must not allow its mission statement "To manage the water resources of California ... to benefit the State's people..." be violated by the terms of this contract amendment just to maximize PWA

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profitability by allowing water exchanges to be classified as water transfers and by allowing transfers to be driven by profit. 15 (cont.)

Section 3. Transfers and Exchanges, including Transfers and Exchanges using Carryover Water in San Luis Reservoir (SLR). This section alludes to San Luis Reservoir (SLR) carryover water but fails to provide any definitions or differentiation from other locations for transfers or carryover storage. As an example, there is no explanation, definitions, of how operations and fees differ for SLR carryover storage from Oroville carryover storage and how those operations and fees differ due to their locations. Operations, logistics, costs, water supply losses, carriage water requirements and environmental effects of transfers or exchanges from these two locations are very different. These differences must be defined and differentiated in the Water Supply Contract and the implications thereof addressed in the DEIR. Additionally, this section and the rest of the AIP lumps carryover water with Table A water transfers or exchanges without distinguishing the inherent implications of the differences between them. These omitted definitions must be addressed, and the implications dealt with in the Water Supply Contract as well as fully analyzed in a DEIR.

The DEIR fails to discuss the importance of the location of the transfer water. The SWP is a leaky system and where the water transfer is accounted from makes a big difference in the actual quantity of water transferred or exchanged. If water is transferred from Oroville there would be a significant fraction of the volume of water that would be lost to evaporation, leakage and carriage water prior to reaching the point of delivery, i.e. MWD service area. The current and proposed (because it is not addressed in the Amendment) water transfer accounting is at the point of receipt, i.e. at MWD, as dictated by Appendix C Example Water Supply Contract, section 11. Measurement of Water Delivered. Due to water transfer accounting occurring at the point of delivery there are losses incurred that are at the cost of other water contractors or would result in additional water diverted (and additional environmental impacts) to make up for the amount of water lost in storage and conveyance. Put another way, an acre foot of water in a north of delta district transferred to a far south of delta water contractor must acknowledge and compensate for system losses to carriage water, leakage and evaporation. The current water accounting in Water Supply Contract Section 11 is 1 AF out for each 1 AF put in, no matter the disparity of delivery location, so it will take far more water diverted out to the river into the SWP to deliver 1AF of water in the far south districts as the result of a transfer. None of these implications associated with location of transfer or carryover water origin accounting are addressed in the current AIP or DEIR analysis, disclosures or mitigations. 16

The Method of Accounting for Water Transfers and Exchanges Delivery Volumes and Storage and Conveyance Losses are Omitted from the AIP and Project Description. The accounting of where water is transferred from and losses from storage and transport are not defined in the AIP or the Proposed Project. The AIP, Proposed Project, and alternatives must define how losses in water transfers and exchanges are accounted for in order to meet sound business practice requirements (California Contracting Manual 4.02(a)) and not result in water transfer operations exceeding water quantity volumes proposed and permitted (CEQA and permitting violations). The only current water accounting term included in the Water Supply Contract is "11. Measurement of 17

Water Delivered. (a) The State shall measure all project water delivered to the District and shall keep and maintain accurate and complete records thereof. For this purpose, the State shall install, operate, and maintain at all delivery structures for delivery of project water to the District..." (Appendix C: Example Water Supply Contract, page 39) This water volume accounting method fails to account for the amount of water lost in storage and conveyance and greater quantities of water having to be diverted and conveyed from the initial point of a water transfer or exchange to make up for storage and conveyance losses. The DEIR is deficient for not analyzing, disclosing and mitigating for such impacts.

17 (cont.)

The Current Assumption for Water Transfer and Exchange and Water Loss from Conveyance are Arbitrary. Instead of analyzing water transfers and exchanges on a case-by-case basis, based on their location, timing, volumes and operations, DWR has in the past utilized a standardized, unsupported and unjustified 20% loss for carriage water and 3% loss for conveyance (which includes both evaporation and canal leakage). As an example, "Metropolitan purchased 88,158 acre-feet, approximately 90 percent of the total sellers' supplies, at $244 per acre-foot, for a total cost of $21.48 million. These supplies incurred 20 percent Delta carriage losses and 3 percent California Aqueduct conveyance losses." (http://www.mwdh2o.com/PDFWWA2016Postings/2008_2010%20Water%20Transfer%20and%20Exchange%20Transactions.pdf) Page 5, paragraph 2. (Emphasis added) Metropolitan Water District (MWD) is acknowledging losses in the transfers, but the SWP Water Supply Contracts and the WaterFix Amendment do not include any such accounting for losses in water transfers or exchanges. Nowhere in the existing Water Supply Contract or AIP is it stated that the losses in conveyance and carriage will be subtracted from the initial transfer or exchange quantity of water. The way the contract reads currently for measuring water deliveries at the district turnout would result in the losses incurred in conveyance volumes to be made up from other sources which would result in either shortages of deliveries to other Contractors or larger than permitted diversions to make up for such losses. In either case environmental impacts would occur that would not be evaluated, disclosed or mitigated in the water transfer or exchange EIR. All permits issued based on the incorrect EIR analysis would be invalid for the increment of water delivered that makes up for the conveyance losses. The Proposed Project and Alternatives must be revised to include real and defensibly accurate conveyance and carriage losses in the transfer or exchange water delivery accounting.

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In the referenced transfer document above, each and every transaction, regardless of timing, duration of storage, hydrologic conditions or source location, the conveyance and carriage water volumes losses accounted were the same, 20% for carriage and 3% for conveyance. Depending on the timing of water transfers or exchanges that traverse the delta, water carriage to maintain delta water quality and minimum outflow requirements may be significantly greater than 20%. As an example, if there were water quality violations at the time of the transfer, as much as 100% of the water volume must be allocated to carriage to meet SWP operating legal obligations per their permit requirements.

3% conveyance losses might or might not realistically cover evaporative losses of a water transfer or exchange if there was no storage duration in the implementation operation. The WaterFix

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Amendment allows transfers to be carried over in storage from one year to the next (section 3) so some transfers will have substantially higher evaporative losses. Transfer and exchange storage in San Luis Reservoir is referenced numerous times in the AIP (e.g. section 3). San Luis Reservoir is wide and shallow so the surface area to storage volume is very high so relative evaporative losses to water volume are high for this facility. Further increasing evaporative losses at this facility are the typically high winds (as evidenced by the windmills and world-famous windsurfing on O'Neil Forebay). Tools for calculating reservoir water evaporation are readily available. (https://www.dpi.nsw.gov.au/content/archive/agriculture-today-stories/ag-today-archives/october-2011/calculate-losses-to-evaporation) This tool is from New South Whales Australia which has a very similar climate to Central California, so this tool is readily applicable without modification. The Proposed Project must incorporate use of best available science and sound business practices to calculate the evaporative losses that would occur under the proposed operations (source and destination as well as timing and storage duration) of each proposed water transfer or exchange.

3% conveyance loss that includes canal leakage is patently indefensible and defies any logic, common sense or knowledge of the SWP system. The California Aqueduct is constructed along the slopes of the east side of the coast range. Alternately, the canal cuts through hillsides and crosses ravines between them. In each ravine, the canal is constructed on fill. The fill has settled and causes many cracks in the canal lining which leak. This setting process is ongoing so although DWR eventually repairs leaks if they are discovered and are large enough, new ones are continuously occurring. These leaks range from relatively small to very large and there are thousands of them. Some leaks are so large that they have formed permanent wetlands adjacent to the canal. These artificial wetlands formed from SWP leaks range from a few square meters to tens of acres. In the 1980s, DWR hired AG-RECON, a multispectral aerial survey company, to do an aerial survey of a 10-mile section of the California Aqueduct near Tracy. The survey correctly identified 3 large leaks that DWR was aware of in this reach. The largest leak formed a permanent wetland of several acres. In addition to the 3 large leaks, hundreds of additional leaks were also identified. (pers. comm. David Olson, AG-RECON) California Department of Fish and Wildlife has fined DWR ($1 million in one case) for fixing leaks that have dried up wetlands and sued DWR to prevent them from fixing others.

Conveyance loss from leaks in the California Aqueduct for delivery to the farthest end of the SWP system for Metropolitan WD is much, much higher than 3%. The California Aqueduct is famously leaky. "a sinkhole caused by a leak in the California Aqueduct was brought up. It was between check gates 28 and 29 west of the HECA site. An aqueduct supervisor said that he was not satisfied with the repairs that were done but as far as he knows no other work was done on it." (https://efiling.energy.ca.gov/GetDocument.aspx?tn=201832&DocumentContentId=3335 "water had begun leaking at a rate of up to 3 cubic feet per second" (https://www.breitbart.com/local/2016/01/14/leak-shuts-down-california-aqueduct/) "It's unclear what caused the break in the canal's lining, but Thomas said old age is a likely factor." (https://abc30.com/news/water-leak-forces-shutdown-of-california-aqueduct/1158077/)

18 (cont.)

The California Aqueduct is 444 miles long from the Delta to the end of the West Branch (https://www.britannica.com/topic/California-Aqueduct#ref66587). The 3% conveyance loss allocated in the Metropolitan WD transfers through the California Aqueduct, which is leaky as proven above, could lose only 0.0067% of water per mile (including both leaks and evaporation). For an Acre Foot of water (325,851 gallons), this claimed loss rate for leakage and evaporation equates to only 22 gallons per mile of conveyance assuming there were no leaks or evaporation in the rest of the water transfer. This amount of 22 gallons per mile per Acre Foot might or might not be enough to account for evaporation but can be nowhere near what the actual leakage conveyance losses in this aging and damaged California Aqueduct infrastructure.

Most transfers and exchanges also utilize natural tributaries as a portion of the conveyance. Water transfers or exchanges that occur starting in Oroville Reservoir or from water districts north of the delta, utilize the Feather River, Sacramento River and Delta as conveyance prior to diversion at the Tracy pumps plus the losses that occur in SWP aqueduct discussed above. The tributary and delta portions of the water transfers or exchanges also have their own evaporative and leakage-related conveyance losses. The same evaporative loss calculations discussed above can be applied to upstream storage duration and tributary evaporative losses based on time of year and weather conditions. The tributary conveyance also incurs its own type of leakage in the form of groundwater recharge. There are groundwater/surface water hydrology models available for the Feather River, Sacramento River and Delta basins to calculate tributary losses to groundwater recharge. Groundwater accrual and depletion from the tributaries is seasonal, so the timing of transfers or exchanges must each calculate the loses based on the date of the operation. The water transfer may not take credit for groundwater accretions to the river, but it must account for groundwater recharge losses. Transfers and exchanges tend to be late in the season when tributary flow losses to groundwater recharge are the highest, so this is an essential environmental and water supply impact that the DEIR must analyze, disclose and mitigate.

18 (cont.)

Now that we have framed the question, given that transfers to Metropolitan WD likely required greater than 20% carriage water and definitely incurred more than 3% conveyance loss, where did the extra water that was delivered come from (supported by what water right) and what permits covered this amount of water above and beyond the approved transfer amount? In the examples from the 2010 Metropolitan WD water transfers (http://www.mwdh2o.com/PDFWWA2016Postings/2008_2010%20Water%20Transfer%20and%20Exchange%20Transactions.pdf) DWR delivered to MWD 228,977 AF of water at the MWD turnouts. Given that carriage water and conveyance losses were likely at least 10-20% higher than the 23% loss allocated, where did the extra 22,897 – 45,794 AF come from and what permit and water right covered that quantity of water? Given the arbitrary and unsupported loss estimates for the carriage water and conveyances losses, DWR and MWD cannot credibly defend that more water was delivered than was contracted or that they had a right to. The Water Supply Contract WaterFix Amendment must incorporate the sound business practice of using best available science to calculating losses and employ defensibly accurately accounting of the actual the water supply diverted and delivered.

DWR must incorporate in the Water Supply Contract WaterFix Amendment real-time calculation of the California Aqueduct conveyance losses. All of the information to conduct the conveyance loss audit is readily available. The flows from the SWP pumps at Clifton Court Forebay into the

canal are known. The volumes of diversions at each turnout are known. The volumes of flows through each lift station are known. The losses from evaporation are easily calculable (see above). The difference between flow going in the canal from Clifton Court Forebay minus the diversion flows measured and the evaporation calculated is the amount lost to leakage for each reach of the California Aqueduct. Each reach and point of diversion must have its own cumulative conveyance loss calculated for each set of conditions of proposed water transfers or exchanges.

DWR, as a water purveyor, generates revenue through the quantity of water it delivers. DWR should incorporate in its Water Supply Contracts and related water transfer amendments, the sound business practice (as required by California Contracting Manual section 4.02(a)) of monitoring, using best available science and calculating conveyance water losses rather than relying upon obviously indefensible, inaccurate and extremely under-estimated 3% conveyance water loss as exemplified in the MWD water transfers documented above. The requirement for measuring and addressing SWP conveyance leakage is also dictated by Article X, Section 2 of the California Constitution which prohibits the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water. Section 2 also declares that the conservation and use of water "shall be exercised with a view to the reasonable and beneficial use thereof in the public interest and for the public welfare." The requirement to minimize water system conveyance loss is also an established State and DWR policy, "W-3.2. DWR and the Water Board will continue to develop and implement actions to minimize water system leaks and set performance standards for water loss." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Climate-Change-Program/Files/safeguarding-california-plan-2018-update.pdf, page 195, paragraph 3) Conveyance leakage is not a designated beneficial use of water and therefore the WaterFix Amendment must include a minimum performance standard of conveyance water loss to potentially qualify for a water exchange or transfer. Reduction of conveyance leakage, above the current levels of repairs and maintenance must be included in the range of potential project mitigations for impacts of water transfers and exchanges such that the quantities of water needed for transfer to satisfy basic human health and safety are minimized. To comply with State and DWR stated policy on standards for water system leaks and water loss as well as the State Constitution prohibiting waste and unreasonable use, the WaterFix Amendment must include a minimum qualifying standard for system and water loss performance as part of the Basic Qualifying Criteria for water transfers and exchanges. DWR has set an established precedent of a 3% water conveyance loss for water transfers and exchanges at the farthest delivery points in the SWP system. In order to not be in conflict with DWR's policy W-3.2 above, DWR must set a minimum standard for conveyance loss for all water transfers and exchanges. Due to the precedent of the MWD transfers referenced above, the minimum qualifying standard for transfers and exchanges in the WaterFix Amendment must be 3% conveyance loss (including evaporative losses) or less for transfers and exchanges at the far end of the SWP system and proportionately less for transfers and exchanges at lesser distance delivery destinations in the system. The 3% conveyance loss qualifying criteria must be the real monitored value, not the unsupported and unrealistic 3% conveyance loss used in the past.

18 (cont.)

DWR must also determine the actual carriage water required to support each water transfer or exchange to subtract those amounts from the water delivery and not rely upon the previously

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utilized, unsupported, inaccurate, arbitrary and capricious 20% previously universally used. The WaterFix Amendment must utilize the best available science and sound business practice to ensure that the amount of water delivered at the receiving Water Contractor turnout is not over the amount evaluated under CEQA, permitted by Responsible Agencies, and supported by the applicable water rights for each water transfer or exchange.

18 (cont.)

Only by incorporating this prudent and sound business practice of accurately calculating carriage and conveyance loss for each proposed water transfer or exchange can DWR determine and defend that the amount of water being delivered is accurate, appropriate and is covered by the appropriate CEQA analysis, permits and water rights.

Section 3.1 - The Amendment Must not Allow PWAs to be Buyers and Sellers in Same Year. Section 3.1, "PWAs may be both buyers and sellers in the same year and enter into multiple transfers and/or exchanges in the same year." Allowing a Water Agency to be both a buyer and seller in the same year would result in piece-mealing environmental impact, i.e. less than significant impacts from original seller to intermediary buyer/seller and from intermediary buyer/seller to final buyer. If the impacts of the whole water transfer from the first seller to the last buyer were evaluated in their totality, the impacts could be significant. In order to avoid piece-mealing impact analysis, the buy and sell operations must be evaluated in the same EIR as a whole. As an example of the problem with the proposed Water Agency as both a buyer and seller in a single year, theoretically, this term could be gamed in buying from the adjacent upstream agency and selling to the adjacent downstream agency, so each transfer seemed small in geographic scope. This step-wise water transfer could be daisy-chained across the entire SWP to minimize and mask the identification and quantity of significant larger scale regional impacts. Even if the whole water transfer scope were revealed in the EIR it would be under the Cumulative Impacts section which does not require significant impacts to be mitigated, effectively allowing the PWAs to sidestep the costs of mitigating the impacts of their water transfer. The Contract must require either that PWAs are only buyers or sellers in a single year or that all of their purchases and sales for a year or given transaction are evaluated in CEQA as a single project.

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Section 3.1 – Allowing a PWA to be Both a Buyer and a Seller in the Same Year May Result in a Violation of DWR's Public Trust Doctrine Obligations. Allowing both buying and selling in the same year takes up water supplies that could otherwise be available for PWAs that actually need water supply. If you can sell water supply, there is no justifiable need to buy water supply. Creating a market where PWAs can both buy and sell water in the same year just invites speculation and will drive up the cost of water to those populations that actually need it. These populations that actually need the water supply will have less water available and it will be more expensive as a result of PWAs both buying and selling water in the same year. This makes their water supplies less reliable and less affordable which is in direct violation of DWR's PTD obligations. PWAs should not be allowed to be both buyers and sellers in the same year.

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Section 3.2 - Basic Criteria Required for Proposed Transfers and Exchanges Must include Quantification of Water Required to Meet Basic Human Health and Safety. The AIP must be revised to include a definition of the water supply requirement to meet "Basic Human Health

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and Safety" in the contract amendment. With this definition, there will be no need for any exceptions to the required qualifying Basic Criteria. Any increment of water supply above this defined basic human health and safety level are "wants", not "needs". "Wants" are optional and growth inducing. "

21 (cont.)

California Law Defines the Basic Criteria for the Quantity and Duration of Water Transfers and Exchanges. The Basic Criteria in the AIP and Proposed Project to qualify potential water transfers and exchanges must integrate these long-standing legal requirements and principles. First, the delta water users must have adequate water supply. In this context, "adequate" means not only water supply quantity, but also water quality suitability for these designated beneficial uses. SWP operations routinely violate delta water quality standards. Water transfers and exchanges can only occur during periods that the SWP has excess capacity after meeting its operating obligations. SWP operating obligations include meeting all water quality compliance. If there is a water quality violation during a water transfer or exchange that means that there was no excess capacity available. Any water transfer or exchange related operations that occur during a water quality violation will expose all participating parties (DWR, water seller, water buyer) to legal liability from damages that occur. Second, the quantity of water exported from the delta for water transfers and exchanges is to meet water supply deficiencies necessary to provide for peace, health, safety and welfare. If water transfers or exchanges are in excess of this minimum requirement to meet human health and safety, then the transfer is in violation of this law.

22

Section 3.2.1 – "Transfers and exchanges must be transparent". We agree that transparency is an essential requirement for water transfers and exchanges. As such, the term "transparency" must be defined in the AIP and Proposed Project such that it is enforceable. We request the definition most applicable from TheFreeDictionary.com as "Open to public scrutiny; not hidden or proprietary" be added as the definition of this term in the AIP and Proposed Project. This definition of the AIP term, "transparent" is consistent with our request for non-SWP Water Districts to be provided equal access and notifications to proposed water transfers and exchanges as are afforded the SWP Water Contractor non-participants under AIP sections 3.2, 3.3, and 4.2. Non-SWP Water Agencies such as CDWA and SDWA must be included in the early disclosure process for a proposed water transfer or exchange.

Proposed exceptions to the Basic Criteria (see 00113_SWCCWF-0078_PWAs Edits_Principle Sec I-3.2.7_6.27.2018 vl .pdf) must also be transparent. The explanatory information provided by the PWA to the Director to make an exception that breaks the otherwise accepted Basic Criteria for a water transfer or exchange to be accepted, must be disclosed for public review and comment. Withholding the rationale provided to support a decision by the Director would be in violation of CEQA as the rationale must also be part of the Overriding Considerations that must be disclosed in the EIR. Any rationale accepted as an overriding consideration by the Director must also hold up to public scrutiny in the EIR disclosure and participation process. The rationale for the exception would support the decision for DWR to certify the EIR, so that also requires public disclosure.

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The proposed "Transparent Process" in which potential transfers or exchanges are discussed with local area PWA agencies prior to transfer approvals is not currently inclusive of non-SWP Water Agencies, e.g. CDWA and SDWA, and therefore fails to be transparent. Since many of the proposed transfers or exchanges potentially affect CDWA and SDWA, they and other potentially affected non-SWP Water Agencies must be included in the early disclosure and transparency process. As a Public Trust Resource Agency, DWR has a responsibility to protect from harm non-SWP Water Agencies as well as the SWP PWAs.

The current AIP language (Section 4.1.1) allows the proposing PWA to determine which PWAs might be affected by a proposed transfer and that should be contacted for early disclosure to meet the criteria for transparency. The proposing PWA must not be allowed this discretion and all proposed water transfers and exchanges must be disclosed to all Water Agencies for them to determine for themselves if they are potentially affected and wish to participate in the early feedback on a proposed water transfer or exchange. Under the current definition, the proposing PWA could chose to not disclose potential impacts to an agency which effectively makes the process opaque rather than transparent for those un-notified agencies. The potential for non-notification of potentially affected water agencies means they would involuntarily forego the opportunity for that water agency to participate in the required transparent process.

In order to meet the commitment of transparency, non-SWP Water Agencies such as CDWA and SDWA must be included in the early disclosure process for a proposed water transfer or exchange. DWR, not the PWAs as proposed in the AIP, must determine who the potential affected parties are of a proposed water transfer or exchange for disclosure and transparency.

23 (cont.)

3.2.2 Transfers and exchanges must not harm non-participating PWAs. "Harm" must be defined as "not adversely affect" and to specifically include financial, water agency operations and maintenance, water right and water quality impacts. Anticipating that these definitions must be consistent with the Water Transfer EIR and supporting permit requirements. the SWRCB 401 permit for the water transfer will require that the impacts not adversely affect designated beneficial uses of water. "Harm" is inconsistent with and the requirements of the Regional Water Quality Control Board Central Valley Basin Plan. A more consistent wording with the 401 requirements would be "not adversely affect" as no degradation of beneficial uses of water is allowed under the Basin Plan.

"Non-participating PWAs" is not currently inclusive of non-SWP Water Agencies, e.g. CDWA and SDWA. Since many of the proposed transfers or exchanges potentially affect CDWA and SDWA, they and other potentially affected non-SWP Water Agencies must be included in the definition of non-participating PWAs and protected from harm as a result of water transfers or exchanges. As a Public Trust Resource Agency, DWR has a responsibility to protect from harm non-SWP Water Agencies as well as the SWP PWAs.

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There Must be no Exceptions to Compliance with the Basic Criteria for a Water Transfer or Exchange, see Appendix A 3.2.1, 3.3.3, 3.3.4, 3.4, and 4.7. Exceptions are readily foreseeable and therefore must be addressed fully and explicitly in the Amendment as is required by sound

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business practices. These exceptions must also be evaluated, disclosed and mitigated in the currently deficient DEIR which does not address these "exception" caused impacts. 25 (cont.)

Section 3.2.2 - "Transfers and exchanges must not harm non-participating PWAs." This provision wrongfully omits an equal protection from harm for non-participating non-SWP Water Agencies. The AIP and Proposed Project must be revised to include equal protection for non-SWP Water Agencies from harm from water transfers or exchanges. Equal protection must be applied for non-SWP Water Agencies because DWR's Public Trust Doctrine obligations are to protect water supply reliability, quality and availability for ALL CALIFORNIAN'S, not just SWP Water Contractors – see related Public Trust Doctrine comments. Equal protection must be applied for non-SWP Water Agencies because although State law requires DWR to make unused SWP capacity available for transfers, CA Water Code § 1810 requires "(d) This use of a water conveyance facility is to be made without injuring any legal user of water and without unreasonably affecting fish, wildlife, or other instream beneficial uses and without unreasonably affecting the overall economy or the environment of the county from which the water is being transferred." The choice of wording is clear, that no injury can occur to any water user as a result of water transfers or exchanges. This degree of legal protection and requirement for water transfers and exchanges is regardless of SWP Water Agency membership. Note that injury is any degradation of the benefits of legal use and is a much lesser degree of harm than a "less than significant" CEQA impact. The AIP and Proposed Project must be revised to use the exact same wording as the current legal requirement under CA Water Code § 1810 (d) which must replace the current wording of section 3.2.2. 26

Section 3.2.2 and 3.2.3 - The Proposed Project excludes notification of potentially affected Water Districts from the evaluation and negotiation process for proposed Water Transfers and Exchanges if the Affected Water District is not a State Water Project Contractor. The Proposed Project definition of "Non-participating PWAs" is not currently inclusive of non-SWP Water Agencies, e.g. Central Delta Water Agency and South Delta Water Agency. DWR as the Public Trust Resource Agency has responsibility and obligation to protect all California water resources and users regardless of their status as a SWP Water Contractor or not. DWR's clear bias toward protecting and serving the SWP Water Contractors to the exclusion of other California Water Agencies is a betrayal of their Public Trust Resource Agency duties and obligations and must not be allowed. ALL potentially affected water agencies, which have their own fiduciary responsibilities to protect and serve their members, must be included in the disclosure of the planning and negotiation process for proposed water transfers or exchanges. The purpose of notifying non-participating agencies is to inform those Water Agencies early on in the process that may be affected by the proposed water transfer operations. The early notification of potentially affected Water Agencies by the proposed water transfer operations must not be arbitrarily and capriciously limited to only SWP Water Contractors as it is currently defined in the AIP and Proposed Project. The Proposed Project and all Alternatives must include all California Water Agencies in the notification of potentially affected parties and no distinction or privilege in participation or access to the process given to SWP Water Contractors over other potentially affected California Water Agencies. DWR as the Public Trust Resource Agency must ensure and protect the Water Agencies and water resources of California regardless of Water Agency SWP 27

affiliation, with equal protection to their water rights, water quality and beneficial uses as an SWP Contractor. – See Appendix A 3.2.2, 3.2.3, 3.2.5, 3.2.6, 3.3, and 3.3.2. 27 (cont.)

Section 3.2.3 - Transfers and Exchanges Must Not Create Significant Adverse Impacts in a PWA Service Area. This protection from adverse impacts must be revised to be inclusive of non-SWP Water Agencies because as a Public Trust Resource Agency, DWR has a responsibility to protect from harm non-SWP Water Agencies as well as the SWP PWAs. The term "significant adverse impacts" is CEQA terminology. The water transfers and exchanges also require 401 permitting under the Clean Water Act. The Basin Plan used in the 401-evaluation process requires that there is no degradation or impairment of the defined beneficial uses of water. In order to be compliant with the Basic Criteria in section 3.2.4 and be consistent with the Basin Plan requirements, the language must by changed from "not create significant adverse impacts" to "not degrade or impair designated beneficial uses of water". 28

The language in section 3.2.2 and 3.2.3 is not well enough defined to explain the difference between a "non-participating PWA" and a "PWA service area". Presumably non-participating PWAs also have service areas so it is unclear as to what is being differentiated other than the level of protection from harm from a water transfer or exchange. In the first case, no harm is permitted and in the second it is permissible to harm them, but not significantly. What is clear is that DWR is allowing a different level of protection for different status entities relative to a transfer or exchange and/or membership in the SWP. This disparity and unequal protection is in conflict with DWRs responsibilities as a Public Trust Doctrine obligations. DWR must provide the same level of protections for all PWAs and Water Agencies, regardless of transfer or exchange participation or membership as an SWP Water Contractor.

Section 3.2.4 - Transfers and exchanges shall comply with all applicable laws and regulations. The Agreement as a sound business practice must list the applicable laws and regulations just as an EIR is required to disclose. The inclusion of this list in the AIP will improve communications and expectations regarding the process and requirements of water transfers and exchanges. As is, the AIP barely acknowledges the CEQA process and requirements and does not at all address any of the permits required such as the 401 Clean Water Act Certification. The roles and responsibilities of the respective agencies in addressing each of the requirements should be defined in the AIP. As an example, it should be clear in the AIP that DWR as the State Lead Agency is the principle agency in charge of completing the Water Transfer EIR will utilize its current Water Transfer Office which manages the water transfer and exchange process and produces the required EIR compliance documents. DWR must be the Lead Agency preparing the EIR as it will not only be responsible for certifying the EIR, it is the Public Trust Agency for water resources related to water supply for the State and it will be responsible for operationally executing the water transfer. DWR as operator of the SWP has unique knowledge of the operations of the SWP and resources to evaluate impacts that the PWAs do not possess. It is for these reasons that DWR must be the EIR preparer and not the PWAs. DWR's role as Lead Agency and EIR must be addressed and defined in the AIP. 29

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Any increase in the frequency, magnitude or geographic extent of water quality criteria exceedance identified in the evaluation of a water transfer or exchange would represent a violation of current regulations and therefore must not be approved. 29 cont.

Section 3.2.5 - Transfers and Exchanges Shall Be Scheduled Only if They Do Not Impact Normal SWP Operations. The AIP proposes to "not impact normal SWP operations" from water transfers. "Normal" and "impact" are not defined and therefore can be subjectively interpreted by each party leading to conflict. These terms must be functionally defined in the Agreement and how they are defined can materially alter water transfer or exchange impacts. The Agreement must also be revised to include operational protections for other PWAs and non-SWP Water Agencies. An example operational impact to non-SWP Water Agencies from water transfers, delta water intakes could have a lower water level to draw from thus increasing their power costs to lift water in diversion operations. In more extreme cases, intakes could be dewatered, and diversion operations disrupted. This impact would have financial, operational, and water rights implications that must be addressed in the AIP and the current DEIR is deficient for the omission of the evaluation, disclosure and mitigation of these impacts. 30

Section 3.2.6 - Transfers and Exchanges Shall Not Impact the Financial Integrity of the SWP. The Agreement must be revised to include financial impact protections for other PWAs and non-SWP Water Agencies. DWR has specified that it be protected from financial harm from water transfers, but with the current AIP, PWAs or Water Agencies are not afforded the same protections. CEQA provides a process where water rights, water quality impacts are identified, avoided, minimize and mitigated (if they are significant), but CEQA does not address financial impacts. DWR recognizes the need to protect itself from financial harm from the water transfers and as a Public Trust resource agency it must also extend that same protection from financial harm to all Water Agencies. 31

Section 3.3.1 - Any Claim to a Significant Adverse Impact May Only Be Made After the Submittal of a Term Sheet to DWR. It is unclear how this section relates to the process flow diagram, "SWCCWF-0065_PWAs Wtr Transfer Process-Transparency_5.30.2018_00085.pdf" as the terminology is inconsistent and the language in 3.3.1 and conflicts with the CEQA timeline and requirements. As an example, is the "SWPAO Agreement" in the process diagram the same as the "DWR approves transfer agreement" in 3.3.1? The Process-Transparency Diagram must be added to the Agreement and clarified for consistency and frankly, transparency. The inconsistencies in the terminology must be reconciled and the apparent conflicts with the process proposed in 3.3.1 with CEQA requirements resolved so the Agreement and the water transfer process is not in violation of the Basic Criteria in section 3.2.4 to comply with all applicable laws and regulations. 32

The process diagram must add each of the required CEQA processes and other legal requirements such as permitting so it is clear where they fall in relationship to the rest of the process. CEQA process requirements must include: Notice of Project publication, Public Project Scoping Meetings, definition of the Environmental Baseline and reasonably foresceable projects to include in the future No Project assumptions, project alternatives development, mandatory draft review

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periods for the fisheries and other responsible agencies, public draft EIR review and comment, EIR revision, final EIR publication, EIR Certification by DWR as the State Lead Agency and Notice of Decision. The process diagram should also include State Water Board public hearings for the required 401 Clean Water Act as well as all other required permitting processes.

It must be clear in the AIP language and the process diagram that DWR is not approving any proposed water transfer or exchange prior to the certification of the EIR and NOD or it would be predecisional and therefore in violation of CEQA and section 3.2.4 Basic Criteria.

32 (cont.)

Section 3.3.3 - "If this group can't resolve the dispute, the issue will be taken to the Director of DWR".

Section 3.5 - DWR is a Party to the Water Transfer and Exchange Agreements. DWR is incorrectly attempting to characterize its role as arm's length and not as a party in the Water Transfer and Exchange Agreements. DWR is the agency approving the agreements and settling proposed water transfer and exchange disputes. DWR is planning and implementing the agreement by scheduling the transfers and conducting the water operations for the transfers. DWR is getting paid to implement the transfer, plus potentially paid a share of the transfer fees between the parties. Compensation, planning and execution of the contract and active participation in the benefits from the contracts meet the legal test of being a party in the Water Transfer and Exchange Agreements. The DEIR should be amended to correct this incorrect and misleading assertion.

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Section 3.6 – DWR Must Omit the Provision for Timely Processing. "DWR will process timely requests to be incorporated into the schedule to deliver water that given year." The current language presupposes a positive outcome for the proposed water transfer and exchange and therefore embeds a pre-decisional approval to the processing of an application. This section is another example of the need for the Process Diagram to include the CEQA compliance process and mandatory minimum timelines to fulfill CEQA legal requirements. If an application is submitted too late in the year to complete CEQA compliance, then it would not be possible for DWR to schedule water deliveries for that year. "Year" also needs to be defined as it is undetcrminable if the reference is to a water year or calendar year. Once the CEQA mandatory compliance timeline is defined as well as "year" then a deadline date for latest submittal for consideration for inclusion in the delivery schedule can be established and included in this Agreement to define "timely". Water operations year definition and the cutoff date for when proposed water transfers or exchanges must be submitted are material sets of information that have not been disclosed. Once these critical terms have been defined and the processing timeline set, the DEIR must be revised and recirculated for public comment.

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Section 4.1 - The AIP and Proposed Project violate DWR's Public Trust Doctrine Obligations for Ensuring the Safety and Reliability of Water Supplies by Allowing Water Contractors to Self-Certify Compliance. The self-certification described in the AIP does not even include the requirement that the amount of water they propose to exchange, or transfer will not risk the future water supply adequacy in their districts in the event of water shortages (i.e. drought or catastrophic event such as earthquake failure of water distribution infrastructure). "The primary purpose of planning, and the source of government authority to engage in planning, is to protect the public health, safety, and welfare." (California Water Plan Update 2013, page 14) Under the terms of the AIP and Proposed Project, DWR is abrogating its PTD obligations by allowing the Water Contractors to determine if a transfer or exchange potentially risks public health, safety and welfare. The Proposed Project must be revised to restore DWR's current contract authority and obligation to ensure water and public risks from water transfers and exchanges by not allowing Water Contractors to self-certify if water transfers potentially jeopardize water supply reliability.
"4.1.1. That the PWA has complied with all applicable laws for this transfer/exchange and shall specify the notices that were provided to the public agencies and the public regarding the proposed transfer or exchange." DWR, as State Lead Agency on CEQA compliance and with PTD obligations is legally responsible for ensuring that the proposed water transfer or exchange have provided all notices to the public and to potentially affected parties.

"4.1.2. That the relevant terms of the transfer/exchange have been provided to all State Water Project PWAs and the SWC Water Transfer Committee;" This is a DWR procedural compliance checklist item, not a PWA assurance. If the PWA has not provided all of the relevant terms, the water transfer or exchange has violated to Basic Criteria requiring transparency (section 3.2.1).

"4.1.3. That the PWA is informed and believes that this transfer/exchange will not harm other SWP PWAs, or impact SWP operations." DWR, as State Lead Agency on CEQA compliance and with PTD obligations is legally obligated to ensure that the proposed water transfer or exchange will not harm other SWP PWAs, or impact SWP operations. The PWAs cannot, without current knowledge of day to day SWP operation which they do not have access to, determine if a proposed water transfer or exchange may or may not impact SWP operations. Section 4.3 is inappropriately worded as "Belief" is sufficient for compliance to the agreement. "Belief" is subjective and can be in contradiction to facts and findings. The Agreement must be changed so the terms "factual findings that support the determination" instead of "believes".

"4.1.4. That the PWA is informed and believes that the transfer/exchange will not affect its ability to make all payments, including payments for its share of the financing costs of DWR's Central Valley Project Revenue Bonds, when due, under its water supply contract." What these PWA assurances has omitted is the requirement for the PWA to assure that any water transfer or exchange does not risk future water supply reliability. There must be quantitative analysis of the transferring or exchanging PWAs water supplies and demands and a minimum surplus contingency water supply maintained in order for DWR not to violate its PTD obligations to protect water supply reliability. Section 4.4 is inappropriately worded as "Belief" is sufficient for compliance to the agreement. "Belief" is subjective and can be in contradiction to facts and

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findings. The Agreement must be changed so the terms "factual findings that support the determination" instead of "believes".

"4.1.5. That the PWA has considered the potential impacts of the transfer/exchange within the PWA's service area." Section 4.5 inappropriately requires that PWAs have "considered" impacts. The Agreement must be corrected to CEQA legally compliant language that "project impacts have been avoided, minimized and mitigated to the fullest extent practicable and compatible with the Project Objectives". Again, the definition of PWA must be expanded in the Agreement to include non-SWP Water Agencies as to avoid treating them as second-class entities arbitrarily and capriciously not afforded the same protections as SWP Water Agencies. Area of Origin protections provide that "no injury" can occur from a water transfer. The language in all sections of the Agreement relating to harm or impact, must be revised to be consistent with and not in violation of this "no injury" legal requirement.

35 (cont.)

Section 4.3 – PWAs Must In All Cases Provide DWR with Information to Support Compliance with Basic Criteria. Without supporting documentation DWR has no basis to approve the transfers and would be deficient in its PTD legal responsibilities. It is a sound business practice to collect, verify and store for later potential audits or legal actions all information supporting agency decision making. PWA's providing detailed information to defensibly support their assertion of Basic Criteria compliance must be required standard operating procedure for a water transfer or exchange application. This supporting information must be included with every transfer application for several reasons. If DWR does not acquire and evaluate the supporting information, it is abrogating its duties as a Public Trust Resource Agency. Without the supporting information, DWR will be certifying and approving a water transfer or exchange it has not confirmed is compliant with this Water Contract Agreement. If DWR agrees to and certifies a water transfer or exchange without the evaluating the supporting information, then DWR has opened itself to legal liability for any and all impacts from the transfer or exchange. The supporting information is required for disclosure in the CEQA compliance process and must be included in the public record. The form and level of detail of the supporting information required to satisfy the Basic Criteria must be defined in this Agreement so there is a specific definition set for DWRs evaluation of supporting information completeness, suitability and sufficiency.

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Section 5.1 - PWAs Must Not Be Allowed to Store and Transfer SWP Water in the Same Year. *"Modify Article 56(c)(4) and any other applicable sections to allow PWAs to store and transfer Table A water in the same year and modify Article 56(c) and any other applicable sections to allow a PWA to transfer Table A water to another PWA's service area."*

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Allowing a PWA to store and transfer water in the same year lets them turn what would in reality be a transfer or exchange of Carryover water into Table A transfer or exchange. This false transformation of carryover water transfer or exchange into Table A water transfer or exchange would allow a PWA to sidestep the constraints on transfers and exchanges of carryover water in section 5.2 and push water delivery priority from the 5th to the 2nd priority according to the Water Delivery Priority Diagram and definitions.

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Here is an explanation of the gaming scenario the current Agreement language permits. A PWA has carryover water. It sells carryover water in a "transfer". It then replaces the transferred carryover water with Table A water it is allowed to store in the same year for carryover to repeat the same process the following year. Allowing PWAs to redefine the water type (carryover vs. Table A water) in the transfer or exchange would result in a significant reduction in the number of transactions that were classified as carryover water, which certainly cannot be what DWR intended with this section as the requirements and constraints in section 5.2 make it clear that DWR has significant concerns over the implications of carryover water transfers or exchanges. This section must be revised to close off the opportunity of a PWA to game the definition of a carryover water transfer transaction into being treated as a Table A water transfer. This loophole that encourages and facilitates gaming of the water transfer and exchange rules can be addressed by the AIP being revised to prohibit a PWA from water exchanges or transfers in the same year that it carries over water.

37 (cont.)

"5.2 Carryover Water Program: Carryover Water Program shall require transfers and/or exchanges of carryover water in years of need, as confirmed by the receiving PWA, to meet the following criteria:"

"need" in 5.2 must be defined and a criteria for qualification established as the minimum quantity and duration of water supply to meet basic human health and safety.

Section 5.2.5 – Proof of Sufficiency and Contingency Water Supply to Protect Water Supply Reliability Must be Determined Before Any Type of Water Transfer or Exchange Should Be Approved. DWR is proposing to require a PWA to provide evidence that a water transfer of over 50% of its Carryover Water will not cause in the transferring PWA to run short of critical water supply in the next year. It is good for DWR to finally acknowledge its affirmative core responsibility to its public trust doctrine obligations in that water transfers or exchanges must NEVER be allowed to jeopardize water supply reliability. "The State has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible." (https://water.ca.gov/LegacyFiles/waterplan/docs/cwpu2009/0310final/v4c01a06_cwp2009.pdf) (Emphasis added) It is feasible for DWR to protect water supply reliability from water shortages that could occur resulting from water transfers or exchanges, and it is compelled to do so. "In the state Supreme Court held that the public trust doctrine requires water users to protect public trust uses to the extent *feasible*. This requires an assessment of the feasibility of restoring and protecting the surface resource, as well as consideration of the water users' alternative sources of supply, demand reduction capabilities, efficiency improvements, and cost considerations." (https://californiawaterblog.com/2018/10/07/the-public-trust-and-sgma/) (Emphasis added) This case precedent is clear that DWR, in all of its evaluations of potential water transfers and exchanges, in its Public Trust Doctrine obligations is required to include evaluation of the feasibility of all alternative water supplies, potential for demand reduction and conservation actions as well as their associated costs, prior to approving any water transfer or exchange. The current 5.2.5 language falls far short of DWR fulfilling its obligations to protect water supply reliability or in evaluating the alternative water supplies and conservations available as alternatives

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to water supply need. The burden to show proof of water supply sufficiency must be applied to all proposed water transfers and exchanges. The level of water supply sufficiency proof must be rigorous, quantitative and always error on the side of overprotective under the most extreme combination of conditions and events. Five-year droughts are common in California so obviously the currently proposed 1-year proof of water supply sufficiency is woefully inadequate. The requisite level of proof of sufficiency is to demonstrate that the water supplies of a PWA would be sufficient to protect basic human health and safety under critical dry water year type conditions for a period of five years. Only water supply above those in surplus of the amounts required to ensure adequate reliable water supply may qualify for potential water transfer or exchange. 38 (cont.)

"5.2.7 The PWA receiving the water must confirm that the PWA has a need for that water for use within its service area during the current year unless an exception is granted under 5.2.8."

"need" in 5.2.7 must be defined and a criteria for qualification established as the minimum quantity and duration of water supply to meet basic human health and safety.

Section 5.2.8 – No Exceptions Must be Allowed. All potential scenarios or justifications for consideration of a potential exception to Section 5.2 are readily foreseeable so sound business practices (required by California Contracting Manual section 4.02(a)) dictate that they must be explicitly defined in the Agreement. No subjectively allowed exceptions should be permitted as they would be, by practice, in direct contradiction to the principles of the Basic Qualifying criteria and prudent rules established in section 5.2 and elsewhere in the Agreement. If exceptions are made, they must be disclosed fully in a Statement of Overriding Considerations in the CEQA EIR for the water transfer or exchange. 39

"5.2.8.3 Using San Luis Reservoir as the transfer/exchange point."

The way 5.2.8.3 currently reads is that SLR location is the only transfer/exchange point that meets the Carryover Water Program requirements. What about carryover water in Oroville or other SWP storage facilities? The DEIR is deficient as it does not evaluate, disclose or mitigate the implied different impacts from carryovers or exchange from various locations in the SWP system. What exception does using SLR as the transfer point gain the transferring PWA and what are the implications? The DEIR is deficient as it does not evaluate, disclose or mitigate for those differences. The difference of using SLR vs another transfer point must be defined, evaluated, disclosed and mitigated. This language should be inclusive for all current and potential future facilities, i.e in the event of the construction of Sites Reservoir during the current SWP Water Supply Contract period. 40

Cost Section

"2. CWF Facilities Definition:"
The facilities definition for cost sharing purposes must also include the costs of implementing and maintaining CWF mitigations. 41

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"3. CWF Facilities Charge Components: The purpose of the CWF Facilities is water conservation and/or transportation."
This statement of the purpose of the CWF is inconsistent and is in fundamental conflict with the CWF EIR/S Project Purpose and Objectives which defines the CWF CEQA project objective as water supply reliability and habitat conservation as co-equal goals. The misrepresentation of the purpose of the CWF in the Water Supply Contract WaterFix Amendment is further evidence that the project that was evaluated in the CWF EIR/S is not the same project that DWR intends to build and is being referred to in this AIP. As the current CWF is not the same project as analyzed in the CWF EIR/S, the WaterFix EIR/S cannot be utilized as a basis to support agency decisions or permitting applications, including DWR entering into this agreement to a water supply contract amendment which is utilizes the CWF. 42

"11. Permanent Transfer of Contract Rights – Any permanent transfer of Table A contract rights of a Participating PWA shall be accompanied by a pro-rata transfer of that PWAs rights and responsibilities with respect to CWF."

For the reasons stated in comments on section 1.1 and 1.2, transfer durations must be limited to a period that is reliably analyzable for operational and environmental impacts including Climate Change and that are not Growth Inducing. Transfers of the duration of the Water Supply Contract are not analyzable for climate change impacts for previously stated reasons so long-term or permanent transfers must not be allowed under this contract. Under no circumstances should any permanent transfers be approved under this contract. A clause must be added to the Agreement that there is no transferability of this Water Supply Contract or Contract Amendment. Standard terms of contracts in Contract Law always and prudently include a clause that the rights of a contract holder are not transferable to a third party. This common sense and generally accepted sound business practice in Contract Law is to protect the other principal party in a contract from being forced into fulfilling the contract to a third party that has not been vetted or that may have substantially different circumstances which could fundamentally alter the burdens and risks to DWR's execution of their obligations under the Water Supply Contract and amendments. The omission of the standard clauses prohibiting transfer of the contract to third parties is clearly in breach of the California Contracting Manual section 4.02(a) requirement for use of "sound business practices". The Water Supply Contract WaterFix Amendment must add the common sense and sound standard business practice clause to prohibit transfers of Water Supply Contracts or portions of Contract rights to third parties and delete Cost Section 11. 43

"13. Water Delivery Principles – Participating PWAs moving water in excess of their CWF Facilities Allocation Factor shall schedule deliveries in a manner that does not harm other participating PWAs and shall be subject to the delivery priorities set forth in Article 12(f) of the Contract."

This section is in conflict with the Basic Criteria. This section also indicates the PWA is scheduling the deliveries which is in direct conflict with all of the other parts of this Agreement that are clear that it is DWR that is responsible for the water delivery schedule and operations. 44

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"III. ENVIRONMENTAL REVIEW PROCESS"
The CEQA process and document described in subsections 1 and 2 address the impacts of the contract amendment, but not the environmental impacts of the actual water transfers. We have some comments regarding the requirements and exceptions to the CEQA review of the water transfers.
The EIR analysis of water transfer impacts is based on an assumed water year type and its associated water operations rules. If the water year type changes (is reclassified by the State Water Board) in the year of the water transfer that was not included in the EIR analysis assumptions, the EIR must be revised and recirculated prior to the water transfer. If water transfers are in-progress at the time of the water year type reclassification (and associated changes in water operations rules) not covered in the EIR assumptions, the transfer operations must cease until a revised EIR is recirculated and certified. The revisions required for the EIR are driven by changed assumptions that affect the water transfer impacts that would not be covered by the original EIR and the permits issued based on the original EIR analysis that would no longer be valid. 45

In subsection 2, the project alternatives included in the EIR must include at least one that the CWF is not implemented. On-going impacts of continuing water deliveries must be analyzed in the EIR. The water transfers and exchanges incrementally contribute to these on-going impacts. CDWA and SDWA have previously submitted comments to the Water Supply Contract EIR on these on-going impact types which are equally applicable to water transfers and exchanges. We hereby incorporate by reference the comments we have previously submitted to DWR on on-going and incremental impacts of continuing water deliveries from the Water Supply Contract Extension Amendment to these comments on the incremental impacts of water supply transfers and exchanges under this proposed WaterFix Amendment project. 46

***Other AIP Comments*:**

- During the Contract Amendment negations process there were some technical meetings held which modeling results were discussed between DWR and the PWAs. The public was not allowed access to these technical meetings nor were the results of those technical meetings shared with the public. Request is hereby made that the modeling, technical analysis, and any conclusions or decisions supported by information developed by or for these meetings is publicly disclosed for public review and comment. The Draft EIR must be recirculated for public comment with the disclosure of this material new information. 47
- All articles referenced in the AIP should be included directly by text in the Agreement, not by reference as public access to the source of the articles is limited and unreliable.

SWP Water Supply Contract WaterFix Amendment DEIR Comments from Central Delta Water Agency and South Delta Water Agency 48

The Terms and Conditions of the SWP Water Supply WaterFix Amendment AIP, Proposed Project and Alternatives Violate State Laws, Regulations and Policies

DWR's Public Trust Doctrine Obligations

DWR is a Public Trust Resource Agency with explicit obligations to all of the citizens of California, regardless of whether they are serviced directly by the State Water Project or not. "Under California law, water resources and some associated ecological resources are held in trust for the public by the State." "The State has the obligation to protect these resources where feasible for all citizens of California. Thus, the basic principle of the public trust doctrine, that water resources are held in trust for all citizens, supports the main tenant of environmental justice, that no persons or communities should be disproportionately affected by the use or protection of those resources." (DWR California Water Plan Update 2013, page 64 paragraph 3, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Volume4/environmental-justice/02Environmental_Justice_CA_Govt.pdf) The AIP and Proposed Project violate DWR's Public Trust Doctrine (PTD) obligations in almost every facet of these responsibilities.

The Public Trust Doctrine in California.

"By the law of nature these things are common to mankind -- the air, running water, the sea and consequently the shores of the sea." (Institutes of Justinian [33 Cal.3d 434] 2.1.1.) From this origin in Roman law, the English common law evolved the concept of the public trust, under which the sovereign owns "all of its navigable waterways and the lands lying beneath them 'as trustee of a public trust for the benefit of the people.'" (Colberg, Inc. v. State of California ex rel. Dept. Pub. Wks. (1967) 67 Cal.2d 408, 416 [62 Cal.Rptr. 401, 432 P.2d 3].) fn. 15 The State of California acquired title as trustee to such lands and waterways upon its admission to the union (City of Berkeley v. Superior Court (1980) 26 Cal.3d 515, 521 [162 Cal.Rptr. 327, 606 P.2d 362] and cases there cited); from the earliest days (see Eldridge v. Cowell (1854) 4 Cal. 80, 87) its judicial decisions have recognized and enforced the trust obligation. fn. 16" (https://scocal.stanford.edu/opinion/national-audubon-society-v-superior-court-30644)

"Public Trust Doctrine Values and Trustees

Rights to use water are subject to State government's obligation under the Public Trust Doctrine as trustee of certain resources for Californians. The Public Trust Doctrine is a legal doctrine that imposes responsibilities on State agencies to protect trust resources associated with California's waterways, such as navigation, fisheries, recreation, ecological preservation and related beneficial uses. In National Audubon Society v. Superior Court of Alpine County, the California Supreme Court concluded that the public trust is an affirmation of the duty of the State to protect the people's common heritage of streams, lakes, marshlands, and tidelands, surrendering such protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust. Thus, California agencies have fiduciary obligations to the public when they make decisions affecting trust assets." "The State has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible." (https://water.ca.gov/LegacyFiles/waterplan/docs/cwpu2009/0310final/v4c01a06_cwp2009.pdf) (Emphasis added)

48 (cont.)

Case Precedence Make DWR's Public Trust Doctrine Obligations Clear
"The trust imposes duties on government. In the historic Mono Lake decision, the California Supreme Court applied a rule previously suggested by a number of other courts: The trust is not merely a passive doctrine, but there is an "affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible." "Unnecessary and unjustified harm to trust interests" should be avoided. National Audubon Society v. Superior Court, 33 Cal.3d 419, 446-447 (1983), cert. denied 454 U.S. 977 (1983). See United Plainsmen v. North Dakota Water Conservation Com'n., 247 N.W.2d 457 (N.D. 1976)." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Volume4/environment/02Applying_Puclic_Trust_Doctorine.pdf - page 4 section 7) (Emphasis added)

"Directly diverting waters in material quantities from a navigable stream may be enjoined as a public nuisance. Neither may the waters of a navigable stream be diverted in substantial quantities by drawing from its tributaries..." (People v. Russ (1901) 132 Cal. 102 [64 P. 111])

In *Audubon,* the state Supreme Court held that the public trust doctrine requires water users to protect public trust uses to the extent *feasible*. This requires an assessment of the feasibility of restoring and protecting the surface resource, as well as consideration of the water users' alternative sources of supply, demand reduction capabilities, efficiency improvements, and cost considerations." (https://californiawaterblog.com/2018/10/07/the-public-trust-and-sgma/) (Emphasis added)

48 (cont.)

These Public Trust Doctrine citations and case precedents are clear that DWR in its Public Trust Doctrine obligations that it's evaluations of potential water transfers and exchanges must include evaluation of the feasibility of all alternative water supplies, potential for demand reduction and conservation actions as well as their associated costs, prior to approving any water transfer or exchange. The DEIR is deficient as it fails to fully address and evaluate the quantities of alternative water supply, reduction of water demand and conservation opportunities for each potential water transfer or exchange recipient.

These comments on DWR's Public Trust Doctrine (PTD) obligations are provided in support of related comments on Appendix A, the Water Supply Contract WaterFix Amendment Agreement in Principle which addresses DWR PTD obligation violations.

DWR's Mission Statement is, "To manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments." (Emphasis added) The mission statement is clear that DWR's responsibilities and obligations are not confined to or preferential to the State Water Project and that its responsibilities and obligations to protect water resources are to be to the benefit all of the State's people, regardless of their water delivery relationship to the SWP. The terms of the AIP violate DWR's mission statement by giving preferential protections to SWP Water Agencies superior to non-SWP Water Agencies (section 1.1 and 1.2) and several other sections – see comments on Appendix A.

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These comments on DWR's Mission Statement obligations are provided in support of related comments on Appendix A, the Water Supply Contract WaterFix Amendment Agreement in Principle which addresses DWR Mission Statement conflicts. 48 (cont.)

The Proposed Project, Alternatives and the SWP Water Supply Contract WaterFix Amendment AIP all Violate WATER CODE - DIVISION 1. GENERAL STATE POWERS OVER WATER [100 - 540] *(Division 1 enacted by Stats. 1943, Ch. 368.)* **CHAPTER 1. General State Policy [100 - 113]** *(Chapter 1 enacted by Stats. 1943, Ch. 368.)***106.3. "**

- (a) It is hereby declared to be the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.
- (b) All relevant state agencies, including the department, the state board, and the State Department of Public Health, shall consider this state policy when revising, adopting, or establishing policies, regulations, and grant criteria when those policies, regulations, and criteria are pertinent to the uses of water described in this section.
- (c) This section does not expand any obligation of the state to provide water or to require the expenditure of additional resources to develop water infrastructure beyond the obligations that may exist pursuant to subdivision (b).
- (d) This section shall not apply to water supplies for new development.
- (e) The implementation of this section shall not infringe on the rights or responsibilities of any public water system." (https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=WAT&sectionNum=106.3) (Emphasis added)

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The State very clearly defines its water supply obligation in terms of water supply quantity in (a) to be the minimum amount to be "adequate for human consumption, cooking and sanitation". Water Code 1810 also provides a definition of the quantity of water transfers and exchanges, "(c) Any person or public agency that has a water service contract with or the right to receive water from the owner of the conveyance facility who has an emergency need may utilize the unused capacity that was made available pursuant to this section for the duration of the emergency." (Emphasis added) WATER CODE - DIVISION 1. GENERAL STATE POWERS OVER WATER, CHAPTER 1. General State Policy 106.3. and Water Code 1810 (c) clearly establish the definition of the quantity of "need" as a basic qualification criterion for water transfers and exchanges. Any quantity of water of proposed transfer or exchange above this defined obligation to provide adequate water supply for human consumption, cooking and sanitation or emergency is actually a "want". A water supply "want" is a very different social priority and must never come at the expense of the need or rights of other water rights holders or users. The common need, to fulfill the obligation and requirement to provide adequate water supply for human consumption, cooking and sanitation or an emergency is why water is a public trust resource and why DWR has been granted this state-wide responsibility in trust for the public good. The provision of water supplies to meet this minimum adequate amount is a State obligation and is not discretionary. Any quantity of water above this basic

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protection of human health and safety is discretionary. Non-discretionary and discretionary defines the respective difference between "need" and "want". DWR is obligated to provide water transfers and exchanges to meet the minimum need for human health and safety under an emergency. In 106.3 (c) the State defines that DWR is not obligated to provide water supplies beyond the minimum need for human health and safety. 106.3 (b) requires that DWR address this policy when revising, adopting or establishing policies, which this proposed Water Supply Contract Amendment qualifies as. DWR has not acknowledged, addressed, integrated or provided rationale for its Proposed Project or Water Supply Contract Amendment with respect to the requirement by the State for consideration of these Water Code statutes for quantity of water transfers and exchanges or differentiated quantity of water supply "need", which DWR is required to supply, vs. the quantity of water supply "want". To address the requirement in 106.3(b), DWR must add to the AIP section 3.2 and Proposed Project Contract Terms that "proposed water transfers or exchanges must quantify and provide supporting justification of the amount and duration of water supply to meet the emergency need adequate for human consumption, cooking and sanitation." This addition to the AIP section 3.2 on Basic Criteria would address DWR's Water Code obligations and make clear that any increment of water supply quantity or duration above these required amounts is above and beyond DWR's obligations and is a discretionary action. Any increment of water transfer or exchange quantity or duration that is a discretionary action by DWR makes DWR an active party in the contract; see comment on AIP section 3.5.

DWR has not acknowledged, addressed, integrated or provided rationale for its Proposed Project or Water Supply Contract Amendment with respect to the requirement by the State for consideration of these Water Code statutes for the qualities of water supply. (a) obligates the State to provide "safe, clean, affordable, and accessible water". This obligation is to the whole of the public of California, not just SWP Water Contractors as the Amendment is currently written. The Proposed Project or Water Supply Contract Amendment does not address any of these aspects of the State's obligations for water supplies as required in this Water Code. These terms "safe", "clean", "affordable", and "accessible" must be defined in the Water Supply Contract Amendment and these obligations must be integrated into the contract terms and extend to the whole of the public trust, not just SWP Contractors. The current contract terms violate these State obligations for the qualities of water supplied in several ways that must be resolved in a revised Proposed Project and Alternatives. The current proposed contract amendment allows proposed water transfers or exchanges to "harm" water supplies of other Water Agencies as long as the agency is not a SWP Water Contractor (Appendix A 3.2.2.) The form of the harm allowed in the Water Supply Contract Amendment on these non-SWP Water Agencies will most often occur in the form of impairing water quality for designated beneficial uses including public drinking water quality and agricultural irrigation water quality. Not only is allowing harm of designated beneficial uses in violation of the State Water Board and the Regional Water Quality Control Plans, but it is also in violation of this Water Code's obligation of the State to provide "clean" water supplies. This obligation for clean water supply is a "need" of all Water Agencies, not just SWP Water Contractors. DWR must fulfill its obligation as defined in (a) to provide "clean" water to every human in California so it must revise the Contract and Alternative so that all Water Agencies, regardless of SWP membership

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be protected from adverse effects from water transfers or exchanges. The Contract Amendment must also be revised to ensure that the "need" of any human in California of in the form of these State obligations must never be allowed to be harmed or adversely affected by the discretionary "want" of another.

The Project, by allowing PWAs to be both a buyer and seller of water in the same year (Appendix A section 3.1) violates DWR's public trust doctrine responsibilities and section 106.3(a) obligations to protect affordability of water.

Area of Origin Protections:
California Water Code (CWC) §§ 11460
"In the construction and operation by the department of any project under the provisions of this part a watershed or area wherein water originates, or an area immediately adjacent thereto which can conveniently be supplied with water therefrom, shall not be deprived by the department directly or indirectly of the prior right to all of the water reasonably required to adequately supply the beneficial needs of the watershed, area, or any of the inhabitants or property owners therein." The quantity of water supply for beneficial uses for the Central and South Delta require not only the volume of water for directly for diversion and agricultural irrigation applications, but also the quantity of water indirectly required for delta through and outflows to achieve suitable water quality for agricultural irrigation beneficial uses.

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CA Water Code § 11463 (2017)
"In the construction and operation by the department of any project under the provisions of this part, no exchange of the water of any watershed or area for the water of any other watershed or area may be made by the department unless the water requirements of the watershed or area in which the exchange is made are first and at all times met and satisfied to the extent that the requirements would have been met were the exchange not made, and no right to the use of water shall be gained or lost by reason of any such exchange." (Emphasis added) The Water Code is clear that no water transfer or exchange operation may adversely affect the origin watershed at any time to any degree in comparison to the condition of not conducting the water transfer or exchange operation. This degree of protection is much more stringent than a CEQA finding of less than significant impact as the Water Code protection defines that no degree of adverse effect is allowable.

California Water Code Sec. 11128
"The limitations prescribed in Section 11460 and 11463 shall also apply to any agency of the State or Federal Government which shall undertake the construction or operation of the project, or any unit thereof, including, besides those specifically described, additional units which are consistent with and which may be constructed, maintained, and operated as a part of the project and in furtherance of the single object contemplated by this part." (Emphasis added) This Water Code Area of Origin protection means that the SWP Water Contractors,

Bureau of Reclamation and CVP Water Contractors are also prohibited from violating the area of origin protections defined in Water Code 11460 and 11463 cited above.

"E. The Watershed Protection Act creates a paramount and preferential right to the use in the future of state filing water within the watershed of origin or areas "immediately adjacent thereto which can conveniently be supplied with water therefrom." (https://www.norcalwater.org/wp-content/uploads/area_of_origin.pdf, page 2) It could be argued that the SWP original conveyance is adjacent to water supplies north of the Delta as the SWP conveyance includes north of Delta tributaries and facilities. The WaterFix project and facilities are not adjacent to north of Delta water supplies and are therefore prohibited by area of origin water resource protections from transfer or exchanging water supplies based on adjacency. Water Code § 79711 (2017) (b) "For the purposes of this division, an area that utilizes water that has been diverted and conveyed from the Sacramento River hydrologic region, for use outside the Sacramento River hydrologic region or the Delta, shall not be deemed to be immediately adjacent thereto or capable of being conveniently supplied with water there from by virtue or on account of the diversion and conveyance of that water through facilities that may be constructed for that purpose after January 1, 2014." The WaterFix facilities, if constructed, would be post-2014, so these facilities do not meet the area of origin requirements for adjacency for water transfers or exchanges.

"F. The right of the watershed of origin is unqualified; its potential maximum is the ultimate need for water which can be beneficially used up to the capability of the watershed. */d.* Procedurally, if an inhabitant of a protected area develops a need for additional water, he must still apply for and perfect the appropriative right as required under existing appropriation procedures. However, the application cannot be denied or restricted because of water usage by the state. *Id."* (https://www.norcalwater.org/wp-content/uploads/area_of_origin.pdf, page 2) Long-term or permanent transfers or exchanges outside of the area of origin basin approved by DWR under the WaterFix Amendment violate the area of origin right to develop future additional beneficial uses of water. As an example, permanent or long-term transfers or exchanges of water under the WaterFix Amendment would impair the ability to develop new industry that is water use intensive.

"Area of Origin Statutes during the years when California's two largest water projects, the Central Valley Project and State Water Project, were being developed, area of origin legislation was enacted to protect local Northern California supplies from being depleted as a result of the projects. County of origin statutes provide for the reservation of water supplies for counties in which the water originates when, in the judgment of the State Water Resources Control Board, an application for the assignment or release from priority of State water right filings will deprive the county of water necessary for its present and future development. Watershed protection statutes are provisions which require that the construction and operation of clements of the Federal Central Valley Project and the State Water Project not deprive the watershed, or area where water originates, or immediately adjacent areas which can be conveniently supplied with water, of the prior right to water reasonably required to supply the present or future beneficial needs of the watershed area or any of its inhabitants or property owners. The Delta Protection Act of 1959 declares that the maintenance of an adequate water supply in the Delta--to maintain and expand

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agriculture, industry, urban, and recreational development in the Delta area and provide a common source of fresh water for export to areas of water deficiency-is necessary for the peace, health, safety, and welfare of the people of the State, subject to the County of Origin and Watershed Protection laws. The act requires the State Water Project and the federal CVP to provide an adequate water supply for water users in the Delta through salinity control or through substitute supplies in lieu of salinity control.

In 1984, additional area of origin protections were enacted covering the Sacramento, Mokelumne, Calaveras, and San Joaquin rivers; the combined Truckee, Carson, and Walker rivers; and Mono Lake. The protections prohibit the export of ground water from the combined Sacramento River and Sacramento-San Joaquin Delta basins, unless the export is in compliance with local ground water plans. Also, Water Code Section 1245 holds municipalities liable for economic damages resulting from their diversion of water from a watershed." (http://www.waterplan.water.ca.gov/Drevious/b160-93/b160-93v1/ifrmwk.cfm) (Emphasis added)

1959 with the adoption of the Delta Protection Act. Cal. Water Code § § 12200-12227 (West 1971 & Supp. 1988). 1. This Act includes a legislative finding that: the maintenance of an adequate water supply
in the Delta sufficient to maintain and expand agriculture, industry, urban, and recreational development in the Delta area...
(https://www.norcalwater.org/wp-content/uploads/area_of_origin.pdf, page 3) The adequacy of current and future delta water supplies, including climate change and sea level rise affects must be included in the evaluation of any proposed water transfer or exchange.

Cal. Water Code § 1215.5 (West Supp. 1988) (identifying protected areas) shall not be deprived directly or indirectly of the prior right to all the water reasonably required to adequately supply the beneficial needs of the protected area . . . by a water supplier exporting or intending to export water for use outside a protected area pursuant to applications to appropriate surface water filed, or groundwater appropriations initiated, after January 1, 1985 that are not subject to [Water Code] Section 11460. *Id.* § 1216. In addition to the right to obtain a water right that would have priority over the rights of an exporter, the statute gives water users in protected areas "the right to purchase, for adequate compensation, water made available by the construction of any works by a water supplier exporting or intending to export water for use outside the protected area. *Id.* 1217(a). This provision is consistent with previous interpretations of other area of origin statutes. The statute also creates a mechanism for mediation of disputes involving the purchase of export water. *Id.* § 1219. (https://www.norcalwater.org/wp-content/uploads/area_of_origin.pdf, page 3) The AIP and Proposed Project have failed to provide for first right of refusal of within area of origin water users to purchase water prior to any water supplies being made available for sale outside of the area of origin basin. A mechanism for mediation of disputes involving disputes involving the purchase of water must also statutorily be provided for in the WaterFix Amendment. Neither of these requisites are addressed in the current Proposed Project so it is in violation of this statute.

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Area of Origin Protections Do Apply to Water Transferred or Exchanged to or from CVP Water Contractors

"C. On the issue of whether the area of origin statutes apply as against the federal government, the answer appears to be yes. Under the most recent interpretation of the preemption doctrine, as applied in the water rights context, state imposed water rights restrictions are not preempted by federal law unless inconsistent with congressional directives." (https://www.norcalwater.org/wp-content/uploads/area_of_origin.pdf, page 3) 51

These comments on Area of Origin protections are provided in support of our related comments on Appendix A, the Water Supply Contract WaterFix Amendment Agreement in Principle which addresses Area of Origin protection violations.

DWR's Core Public Trust Principles Must Protect Water Transfers and Exchanges from Any Cumulative Impact Impairment of Flows or Water Quality.

"The "nibbling effects" or cumulative effects of human actions must be considered and determined by government not to violate any of the core public trust principles or standards before any decision on approval or denial of a use may be made." "Government has a continuing duty to protect public trust waters, their flows, levels, quality, and the integrity of the ecosystem. In practice, this means that the government has a duty to consider and determine that there will be no impairment or harm to the flows, levels, quality, and integrity of public trust waters, uses, and ecosystem before it makes any decision or approves or denies any request for a permit or other governmental action. This duty includes data and information required for long-term planning and future decisions to satisfy the solemn and perpetual trust responsibility." (http://flowforwater.org/public-trust-solutions/public-trust-principles/, #2 and 3) (Emphasis added) DWR's Public Trust obligation requires that cumulative impacts be determined that there is no impairment on water flows, levels or quantity or it may not approve a water transfer or exchange. 52

DWR's California Water Bulletin 132-11 Provides Guidance on Water Transfer and Exchange Requirements.

"An important element of any water transfer is determining what quantity of water, if any, is transferable.

"The transferability of water depends on many factors including the source of the water being transferred, what is being done to make water available, when the water can be made available, and the type of water right the existing user holds." The DEIR fails to define the conditions and range of conditions on each of these required dependent components to identify if water is transferable or not. *"Several CWC provisions authorize temporary transfers of water rights issued by the State Water Resources Control Board (SWRCB) (appropriative water rights issued after 1914) and put conditions on those transfers to protect those not involved in them. Short-term transfers, of less than one year, are authorized under Sections 1725–1732. Long-term transfers, for periods greater than one year, are authorized by Sections 1735–1737. Other CWC sections specify conditions under which water can be transferred and legal protections for those transferring water."* 53

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"The CWC sections noted above contain provisions intended to protect other legal users of water and fish and wildlife from the possible adverse effects of a water transfer. These provisions reflect the concept that changes can be made to the authorized place and purpose of use or point of diversion of a water supply as long as there is no injury to others as a result of the change (the "no injury rule"). The no injury rule in State water law is intended to protect other water right holders from the potential expansion of water use beyond what would have been used by the water rights holder in the absence of the transfer. Hence, under the no injury rule, only "new water" is transferable (i.e., water added to the downstream water supply only as a result of the transfer). To protect other users, a transfer would not be authorized to the extent that it would reduce the amount or timing of water that would have been available to downstream users, regardless of the water priority of those users." The AIP and Proposed Project violate the "no injury rule" by only allowing some level of protection from harm for SWP Water Contractors (Appendix A, section 3.2.2) and provides no protection from injury provision for non-SWP Water Agencies. The "no injury rule" protection for all Water Agencies, regardless of SWP membership) must be included in a revised AIP and Proposed Project.

"CWC Section 1810(d) requires DWR to consider potential impacts of a transfer to legal users, instream uses, and to the economy of the area from which the water would be transferred. DWR must determine whether to allow use of any surplus water conveyance capacity for a transfer. DWR reviews each request to transfer water through SWP facilities to assure that only new water will be transferred." The AIP and Proposed Project violate the CWC Section 1810(d) requirements by allowing the Water Contractor proposing the water transfer or exchange to self-certify that "the water transfer or exchange does not harm non-participating PWA's" (Appendix A, section 4.1.3). Not only is the term "harm" inconsistent with (d)s protections from no injury, and the protections incorrectly only cover SWP PWA's, but DWR has the obligation to make this determination, not the proposing Water Contractor.

"Transfer water is typically developed through four methods: surplus water released from storage facilities, substitution of groundwater for transferred surface water, idling agricultural land or shifting to lower water use crops, and undertaking conservation activities that develop new water." The DEIR fails to define which of these water development methods and in what proportions and timing, the proposed water transfers and exchanges may occur from. *"Transfers may result in direct impacts and third-party impacts (impacts to parties not involved in the transfer). Certain CWC provisions were enacted to limit potential impacts. For example, additional groundwater pumping from a groundwater substitution program can potentially affect other groundwater users in the area. CWC Section 1745.10 generally requires that transfers of surface water in which groundwater will be pumped to make up for the transferred surface water: (1) be consistent with a groundwater management plan adopted pursuant to State law for the affected area, or (2) do not create or contribute to conditions of long-term overdraft in the affected groundwater basin."* The DEIR has failed to provide supporting analysis and impact conclusions on groundwater substitution and compliance with groundwater management plans.
"Injury can also occur due to stream depletion induced by increased pumping from wells for groundwater-based transfers. The amount of water depleted from the stream as a result of the increased pumping must be deducted from the amount of water transferred or the groundwater

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pumping is not truly an addition to the surface water supply, and the net surface water flows will not increase as assumed. Consequently, to evaluate possible impacts from groundwater substitution transfers, DWR requires that users proposing to transfer water through groundwater substitution provide the information required to estimate the effects on the surface water system. Each type of transfer has its own set of potential impacts that must be evaluated to protect parties not involved in the transfer." The DEIR is deficient as it has failed to provide the full range of these analyses. *"With the exception of short-term transfers done under CWC Section 1725, which provides for an expedited process for water rights issued by the SWRCB, water transfers are subject to compliance with the California Environmental Quality Act and, possibly, the National Environmental Policy Act."* (page 116-117) (Emphasis added)

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The DEIR Must Evaluate and Disclose Criteria for Potential Qualification for Water Transfer or Exchange by Water Right Type

Only some types of water rights are potentially legally transferable or exchangeable under the Water Supply Contract WaterFix Amendment. The DEIR is deficient as it does not clarify and specify which water rights potentially qualify for transfer or exchange and acknowledge the constraints upon the water transfers or exchanges from each water right type.

Groundwater and Conjunctive Use-Related Water Transfers and Exchanges are Significantly Constraint by Area of Origin Protections and Public Trust Doctrine Obligations

Groundwater and groundwater substitution-related (conjunctive use) transfers or exchanges of riparian and appropriative water rights violate Area of Origin laws. "In 1984, additional area of origin protections were enacted covering the Sacramento, Mokelumne, Calaveras, and San Joaquin Rivers; the combined Truckee, Carson, and Walker Rivers; and Mono Lake. The protections prohibit the export of groundwater from the combined Sacramento River and Delta Basins, unless the export is in compliance with local groundwater plans." (DWR California Water Plan Update 2013, Volume 4, page 7 paragraph 3, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Volume4/background/07Water_Allocation.pdf) (Emphasis added)

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The Act prohibits water exporters from depriving those areas "of the prior right to all the water reasonably required to adequately supply the beneficial needs of the protected area." Permanent or long-term water transfers allowed by the terms in the WaterFix Amendment AIP and Proposed Project deprive these areas of the quantity of water to fulfill the needs of designated beneficial uses. As an example, long term transferred water will deprive farmland of water to farm so agricultural beneficial uses in that case would no longer be fulfilled in violation of this Act. The DEIR fails to address potential transfers or exchanges of groundwater or conjunctive use and compliance with this Act.

The Water Supply Contract Extension Amendment is inconsistent With the Delta Reform Act

The DEIR fails to include the review and analysis of compliance with the Delta Plan. CEQA requires (see CEQA Guidelines Section 15125(d)) that a " ... EIR shall discuss any inconsistencies

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between the proposed Project and applicable general plans and regional plans..." WaterFix Amendment water transfers that result in water deliveries the same or above current contract water supply delivery amounts conflicts with regional and municipal general plans that include (as they are required to by law) a reduced dependence upon delta water supplies in the future.

The SWP WaterFix Amendment is inconsistent with and is in direct conflict with existing policy and water code of the state of California. Water Code § 85021: "The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency." The SWP WaterFix Amendment, by increasing water transfers and water use from the delta, is in conflict with the California Water Code. The project is in fact attempting to make the recipients of the water from the SWP even more reliant upon delta exported water by increasing the frequency of reliance upon delta water sources as well as increases the total quantity of water delivered from the delta. The WaterFix Amendment further increases dependency upon delta water supplies as it provides the water contractors with a greater certainty of water supply over a longer period of time which reduces their motivation to seek out and develop more regionally self-reliant supplies as is required by law. The project must not select an alternative which is inconsistent with this water code requirement to reduce reliance on Delta water supplies and therefore in violation of the law.

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The Delta Reform Act requires that all plans must address invasive species. "The quagga mussel, Dreissena rostriformis bugensis, and the zebra mussel, D. polymorpha, are invasive freshwater mussels that pose a significant threat to the SWP. Both species attach to hard substrates, including other mussels, with strong byssal threads, forming dense colonies and causing significant biofouling impacts to raw water infrastructure by clogging small diameter piping and filters and encrusting trash racks and fish screens." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-Project/Management/Bulletin-132/Bulletin-132/Files/Bulletin-132-2011.pdf, page 39 last paragraph) "...primary vectors of mussels are downstream transport of planktonic veligers (the free-floating larval stage) in natural and constructed waterways..." ." (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-Project/Management/Bulletin-132/Bulletin-132/Files/Bulletin-132-2011.pdf, page 40 paragraph 2) The Water Supply Contract WaterFix Amendment includes no provisions or specifications on how water transfers and exchanges will address and mitigate the water transfer and exchange incremental contribution to the establishment and transport of invasive species. This omission in required invasive species impact and mitigation action in the project results in the WaterFix Amendment not being compliant with Delta Plan consistency criteria.

When this project is evaluated for consistency with the Delta Plan, it must be determined to be non-compliant. Of the 24 or so criteria for certification of compliance with the Delta Plan, the project complies with exactly none of them. The analysis of the project's compliance with the Delta Plan is a material omission of the DEIR that must be rectified in a revised and recirculated public draft EIR. The WaterFix Amendment project must not be certified as compliant with the Delta Plan.

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The Warren Act Prohibits Fees in Excess of Costs of Transport for Wheeling Water Through Federal Facilities

The inclusion San Luis Reservoir (SLR) in conjunction with the subject long-term transfers triggers the Warren Act which prohibits charging for water transferred above the costs of the transfer The DEIR fails to address or acknowledge such limitations 56

The AIP and Proposed Project Trigger the Need for NEPA Compliance.

NEPA compliance must be completed if there is a federal nexus with a project. A federal nexus is created when the project is jointly carried out or funded by a federal agency. The San Luis Reservoir is a joint State/Federal funded and owned facility and the CVP and SWP are cooperatively operated under the Coordinated Operating Agreement. "Federal/State Coordination: Some CVP facilities (i.e., the San Luis Unit) were developed in coordination with the California State Water Project (SWP). Both the CVP and the SWP use the San Luis Reservoir, O'Neill Forebay, and more than 100 miles of the California Aqueduct and its related pumping and generating facilities. These operations are closely coordinated at a Joint Operations Center in Sacramento and join with other agencies such as the National Weather Service and the U.S. Army Corps of Engineers." "The project's size and scope forged a unique partnership between the State of California and the Federal government, as the state financed and owns 55 percent of the Unit while the remaining 45 percent belongs to the United States." (https://www.usbr.gov/projects/pdf.php?id=109, page 3, paragraph 1) (Emphasis added) Operations and maintenance of these joint facilities that would be utilized in water transfers and exchanges are also Federally funded, "(d) the United States and the State shall each pay annually an equitable share of the operation, maintenance, and replacement costs of the joint-use facilities;" (Public Law 86-488 (d)) "(f) the rights to the use of capacities of the joint-use facilities of the San Luis unit shall be allocated to the United States and the State, respectively, in such manner as may be mutually agreed upon." (Public Law 86-488 (f)) The joint funding (both construction and annual operations and maintenance), joint facility ownership, and coordinated operations of the San Luis Reservoir, O'Neil Forebay and over 100 miles of canals utilized by water transfers or exchanges; trigger a federal nexus to the AIP and Proposed Project which require NEPA compliance. The agreement of the Bureau of Reclamation under (f) is a federal agency discretionary action which also triggers a NEPA compliance requirement. 57

The CVP/SWP Coordinated Operating Agreement (COA) also creates a federal nexus NEPA compliance requirement for the for the Project. SWP water operations for water transfers and exchanges will affect CVP operations and water deliveries and CVP operations can constrain or create excess capacity opportunities for WaterFix water transfers and exchanges. Because the SWP water transfers and exchanges impacts the CVP operations and water deliveries and vice versa, Reclamation must be a lead federal agency on the EIS component of the SWP WaterFix Amendment NEPA environmental review.

If a project requires a federal permit, it triggers a federal nexus to SWP water transfers and exchanges which require NEPA compliance. Federal permits the water transfers and exchanges

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will require include Clean Water Act 401 Certification from US Army Corps of Engineers and ESA Section 10 (Biological Assessment/Biological Opinion) incidental take permits (ITPs) from U.S. Fish & Wildlife Service and NOAA Fisheries. Even if the water transfers and exchanges are covered by the 401 and ITPs from the WaterFix project, the operating criteria and impacts from the water transfers and exchanges must provide these federal agencies with information to demonstrate that they comply with the permit conditions. The federal agency discretionary action of consistency determinations with existing permits is still triggers a federal nexus and a NEPA compliance requirement for the project.

57 (cont.)

Some of the water bonds for facilities used in SWP water transfers and exchanges were issued under the CVPA. See MWD Contract Amendment 1/1/2005, Article 28e. This SWP funding through a federal project also creates a federal nexus that triggers the requirement for an EIS component to the SWP Water Supply Contract WaterFix Amendment environmental review.

Due to the federal nexus of the project from joint facilities ownership and funding, State/Federal coordinated water operations, and federal permits and approvals; the WaterFix Amendment project must complete NEPA compliance.

Water Transfer and Exchange Impacts Are Not Covered Under Current OCAP Biological Opinions.

Water Transfers incrementally add to the on-going impacts of the SWP Operations and water deliveries. SWP water delivery operations have current and on-going environmental impacts which must be identified, characterized, evaluated, quantified, mitigated and disclosed in the EIR. Current and on-going impacts of the operations of the CVP/SWP are covered by the current FWS and NMFS OCAP Biological Opinions (BO) compliance for on-going impacts of the SWP. As part of the Environmental Setting of the EIR, the document must include an accounting of the SWP and DWR compliance with the Reasonable and Prudent Actions (RPAs) that are legal requirements of the current OCAP BOs. The BO RPAs have many deadlines for submittal of letters of intent and communications, studies, reports, plans, pilot projects, facilities and operational implementations for and to FWS and NMFS. Most of these deadlines have already past and it is relevant to the WaterFix Amendment to disclose the status of OCAP BO RPA compliance as this compliance is the basis for DWR being able to continue to operate the SWP without causing jeopardy for several ESA species. DWR and the SWP are not compliant with the current OCAP BO RPAs and the incremental amounts of water proposed to be transferred and exchanged under the WaterFix Amendment are not covered either. A new BA and BO must be issued to address the incremental quantity of water transfers and exchanges the WaterFix Amendment will create in excess of those quantities currently permitted.

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The WaterFix Amendment EIR Does Not Include Any Provisions to Improve Delta Water Quality.

Part of the DWR stated objectives for the SWP project is to improve water quality in the Sacramento-San Joaquin Delta, control floodwaters, generate electricity, provide recreation, and enhance fish and wild life. The SWP WaterFix Amendment project included water supply transfers for the benefit of the water contractors but did not include any provisions for protecting

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or enhancing any of the other stated SWP project purposes. The SWP Water Supply Contract WaterFix Amendment EIR must include alternatives that not only accomplish this project's objectives, but positively and materially contribute to accomplishing the other stated SWP project objectives to protect and enhance water quality in the delta. 59 (cont.)

The DEIR Should Utilize Significance Criteria that are Consistent with Contemporary California Water Resource-Related EIRs. 60
The EIR must use a full range of significance criteria which are consistent with DWR's use in other similar environmental documents. These similar environmental documents which DWR should use the superset of significance criteria from include: South Delta Improvement Program, Monterey Accord, Oroville Relicensing, CALFED, and BDCP. To use anything less than the synthesis of the significance criteria from these recent and similar projects would be an inconsistent application of policy, procedure and science.

Document Section Comments:

ES.3 PROJECT OBJECTIVES "Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area. (is this regardless of WaterFix or not?) Provide a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity." 61

ES.4 PROPOSED PROJECT SUMMARY *"...nor change any of the PWA's Annual Table A amounts.2 The proposed project would not change the water supply delivered by the SWP as SWP water would continue to be delivered to the PWAs consistent with current Contract terms, ..."* The proposed water transfers rules do allow deliveries in excess of Table A amounts. The proposed Water Delivery Prioritization allows a PWA through a Table A transfer/exchange or an Article 56 transfer/exchange, to get a total delivery above their Permanent Table A allotment before another non-participating agency would get the chance for Article 21 water above their Permanent Table A allotment – See Appendix A, section 3.4. and related comments. Therefore, the Proposed Project is in fundamental conflict of the DEIR claim that the project water is does not result in changes to the current Contract terms. The increment of water delivered to the PWA under the proposed transfer rules is not covered under the OCAP Biological Opinions. The DEIR must be revised to correct this misleading claim, or the Proposed Project revised so that the transfer rules do not allow water deliveries above Table A amounts. 62

Impact Analysis-Related Comments: 63

- CDWA and SDWA have previously submitted to DWR comments on their CEQA document on environmental impacts of the SWP Water Supply Contract Extension Amendment. These comments and concerns are equally applicable to the environmental impacts that occur from water transfers and exchanges covered in this Water Supply Contract WaterFix Amendment. The majority of the impacts are on-going and incremental environmental effects of water deliveries, which water transfers and exchanges also incrementally precipitate. We therefore formally request that all of our previously

submitted comments on the SWP Water Supply Contract Renewal EIR be included in the scoping of the EIR for the Water Supply Contract Amendment for Water Management and California WaterFix.

- The Water Supply Contract Extension Amendment and the WaterFix Amendment must be consistent in all of their baseline assumptions, geographic and impact topic scope and rationale, analytical methods and significance criteria between each other as well as the California WaterFix EIR/S.
- The SWP Water Supply Contract WaterFix Amendment DEIR must address the entire scope of impacts from on-going the incremental quantities of water delivered in water transfers and exchanges, including, but not limited to: salt accumulation in soils delivered in SWP water, soils productivity, groundwater quality degradation, groundwater saltwater intrusion, continued over-reliance on variable SWP water supplies resulting in groundwater overdraft, subsidence and aquifer compaction; reduction in compliance with the legal requirement for water agencies to reduce dependency on the delta water supplies and become more regionally self-sufficient; conversion of prime farmland to other land uses from salt accumulation and idling from long-term and permanent water transfers, drainage disruption from subsidence and permanent or long-term water transfers; conversion of endangered species designated essential habitat from land use conversion and long-term transfer of water; disruption of Williamson Act contracts from land use change and long-term transfers or permanent water contract transfers; disruption of water, road and electric infrastructure from increased subsidence; an increase in the frequency, magnitude, duration and geographic extent of SWP water quality standard violations in the delta as well as downstream of SWP facilities; changes in water quality from altered SWP operations and flows (principally salinity and DO in the delta and defined water temperature suitability for water rights contractually serviced by Oroville diversions); alteration of quality and suitability of designated essential fish habitat for ESA listed species from changes in delta flows; dewatering of riparian intakes and impaired water rights impacts on senior water rights holders; power impacts from changes in the timing of releases that affect SWP hydro-electric operations; growth inducement from long-term water transfers; air quality impacts from increased dust from converted farmland to non-ag uses; reduced groundwater recharge and sustainability from riparian, appropriative rights water transfers, and groundwater/conjunctive use water transfers; increases in groundwater pumping costs and energy use, economic impacts, changes to the costs of water supplies, changes in direction or magnitude of groundwater hydraulic gradient, subsidence, subsidence impacts to infrastructure, discharge water quality, additional raw and discharge water treatment and economic impacts, surface and groundwater beneficial uses of water, surface water quality degradation, growth inducement from use of SWP excess capacity, terrestrial and aquatic species, creation of wetland habitat at locations of canal leaks and loss of this habitat when leaks are fixed, contribution to groundwater recharge from canal leaks, reservoir fisheries and fish populations upstream of terminal dams, reservoir drawdown impacts on warmwater fish reproductive success rates and population sustainability, impacts of carryover water storage drawdown on warmwater fisheries, and on-going degradation of fish population genetic integrity and reservoir fluctuations in all SWP reservoirs from changes in storage and operations which affect

63 (cont.)

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fisheries and recreation (boat launch access, bass nest survival, upstream tributary access by cold-water fish) as well as aesthetics and archaeological sites. The DEIR is deficient for not evaluating, disclosing and mitigating all of these impacts. 65 (cont.)

- The geographic scope of the impacts defined by the above impact topics that must be included in the WaterFix Amendment EIR analysis includes, but is not limited to: all SWP reservoir tributaries to the upstream extent of fish movement to the first impassible fish barrier, all SWP reservoirs, all SWP water transfer source water service areas, all tributaries used in SWP conveyance and affected by SWP conveyance (e.g. all delta tributaries), all SWP service areas receiving transferred or exchanged water, all tributaries downstream of these receiving service areas (from drainage of transferred or exchanged water). The previously referenced and submitted comments on the Water Supply Extension Amendment public scoping and draft EIR provide a full explanation of these impact topics, impact geographic scope and their rationale and are incorporated herein by reference. 66
- Water transfers and exchanges were not analyzed at a Project-Level of detail. The DEIR is not a project level analysis on the entire potential range and combinations of water transfers and conditions, so this programmatic level of analysis will require supplemental EIR's for each water transfer as a separate project for analysis at a project level of detail. 67
- The DEIR was unclear which version of WaterFix project engineering and operations assumed for the impact analyses. The design from the original WaterFix DEIR had a partition in Clifton Court Forebay which contributed to reduced listed species take. The Supplemental WaterFix EIR omitted the Clifton Court Forebay modifications in the WaterFix Supplemental EIR which would have a different level of take associated with water transfers and exchanges. Which one was used makes a difference in the impact assessment. The WaterFix Supplemental EIR has not been certified yet so it may not be used as the basis for assumptions related to WaterFix operations. When the Supplemental WaterFix EIR is certified, the assumptions of the operating characteristics of the SWP for water transfers and resulting rate of ESA take will be out of date and the WaterFix Amendment EIR will require a revision and draft recirculation for public comment for this material new information and analysis. 68
- The EIR impact findings are incorrect and the EIR is not suitable to support Agency decision making. There are many significant impacts that occur from water supply deliveries and the WaterFix Amendment water transfers incrementally add to those impacts. DWR's EIR/S of the California Water Fix identified many significant impacts of continued operation of the SWP in the No Action/No Project analysis. Reclamation's Remand EIS also found many significant impacts of continued operations of the CVP. The incremental impacts of the water transfer operations are the same as those for continued water deliveries documented in these other closely related EIR and EIS. The only difference in impacts is in relative magnitude of water volumes delivered. All of the impact topics in these two environmental documents must be addressed in the WaterFix Amendment DEIR. Each impact topics that had significant impacts in the WaterFix EIR/S must be justified to be at least less than significant impacts in the WaterFix Amendment DEIR or the analysis is incomplete and deficient. 69

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- CEQA requires "lead agencies" to include in their Environmental Impact Reports ("EIRs") information deemed necessary for Projects to be taken or considered by "responsible agencies." (CEQA Guidelines, § 15082, subd. (b)) Information provided in the WaterFix Amendment EIR is not sufficient to support decision making for responsible agencies issuance of permits, including, but not limited to: Central Valley Regional Water Quality Control Board certification as compliant with the Water Quality Control Plan for the Delta, State Water Board and USACE 401 Certification, Delta Stewardship Council Delta Plan Consistency, local Reclamation Districts, etc. The WaterFix Amendment EIR impact calls are in contradiction to the finding of these other contemporary documents that analyze the same impacts. As a result of these inconsistencies in impact findings, the EIR is not suitable as a decision support document for the lead and responsible agencies. 70
- If the water year type changes (i.e. reclassified by the State Water Board) in the year of the water transfer that was not included in the EIR analysis assumptions, the EIR must be revised and recirculated prior to the water transfer or exchange. If water transfers are in-progress at the time of the water year type reclassification (and associated changes in water operations rules) not covered in the EIR assumptions, the water transfer or exchange operations must cease until a revised EIR with quantitative analysis incorporating the corrected water year type assumptions and SWP operating rules is completed, recirculated for Public Comment and appropriate EIR certification is completed – See Appendix A section III Environmental Review Process. 71
- The SWP Water Supply Contract WaterFix Amendment DEIR must evaluate the water supply, water rights, water quality impairments and other water beneficial use impacts resulting from SWP water transfers and exchanges. The conditions of waters in the delta including direction of flows, water quality and impacts to agriculture, drinking water supplies and fisheries resources are a direct consequence of the SWP water transfers and exchanges. 72
- **The WaterFix EIR/EIS Modeling Assumptions are Fundamentally Flawed, and May not be Relied Upon as Supporting Analysis in the Water Supply Contract WaterFix Amendment.** WaterFix EIR/EIS Appendix 3A, page 7, footnote 1, "[1] For example, there is some confusion on the modeling assumptions used for the impact analysis for California WaterFix operations. Although the deliveries south of the Delta followed the general split of 55% SWP and 45% CVP (totals from operation of the SWP and CVP, including but not limited to California WaterFix facilities), the model always utilized a "float" approach for California WaterFix operations that resulted in approximately 67% SWP water and 33% CVP water solely moving through California WaterFix facilities." These fundamental modeling assumptions regarding the SWP vs CVP proportionate water volumes through the WaterFix facilities are unsupported by agreement from the Bureau of Reclamation or CVP Water Contractors. Further invalidating the previously utilized unsupported modeling assumption of the CVP vs SWP proportional utilization of the WaterFix facilities is that MWD has committed to funding the unfunded portions of the facility that the CVP contractors were previously assumed to support. Given that MWD is funding capacity that the previous modeling assumed would be CVP water, the previous modeling assumptions are invalidated and must therefore be rerun with assumption that are consistent with the current WaterFix funding commitments by the SWP Contractors vs CVP contractors. 73

Further invalidating the modeling assumptions utilized in the BDCP (WaterFix) EIR/S are the DWR and Bureau of Reclamation joint reviews of the Coordinated Operating Agreement (COA) Article 14(a) initiated June 1, 2016 to evaluate updates to the COA. These negotiations to revise the COA predate the NOP for the WaterFix Amendment EIR. DWR and Reclamation failed to come to a mutual agreement on COA modifications under Article 14(a) so on August 17th, 2018, David G. Murillo, Regional Director of Reclamation sent a formal letter of Notice of Negotiation to Karla Nemeth, DWR Director, initiating Article 14(b)(2) revision to the COA. When the COA was originally negotiated, the CVP contributed a disproportionate amount of their water supply compared to the SWP to satisfy minimum flow, environmental and carriage water requirements. Renegotiation of the COA will result in a net reduction of available SWP water for potential water supply transfers and exchanges. With these changes in the COA, the CALSIM modeling assumptions must be revised and CALSIM rerun to support the WaterFix Amendment EIR environmental resource impact assessments. 74

- The WaterFix EIR/S did not include modeling for late long-term operations that included all assumptions regarding climate change. The reason this modeling was not conducted was that the variations in assumptions of climate change conditions and the magnitude of uncertainty of those conditions confounded the ability to analyze the impact of WaterFix future operations. By omitting these long-term water operation analyses of impacts including climate change of the WaterFix project in the EIR/S, DWR has established that it is not able to determine the impacts of long-term water operations with climate change assumptions as are required by California law. Since DWR has established that it cannot evaluate long term water operation impacts, it is extremely inappropriate (and in conflict with section *3.2.4 Transfers and exchanges shall comply with all applicable laws and regulations*) for the Water Supply Contract Amendment to allow long term transfers and exchange agreements or permanent transfers. Long term water transfers are currently proposed to be for as long as the duration of the Water Supply Contract which would be as long or longer a period than the failed analysis conducted for the WaterFix EIR/S. Due to these analytical limitations and lack of DEIR compliance with Climate Change analysis requirements we request and recommend that the transfer or exchange duration agreements be limited to short durations (i.e. 5 years or less). 75

The DEIR Improperly Assumes Continued SWP Water Supply Deliveries Under the No Project Alternative

The CEQA No Project condition is defined by the implemented projects and the reasonably foreseeable projects at the time of the Notice of Preparation (NOP). The Notice of Preparation for the Water Supply Contract Water Fix Amendment project was July 13, 2018. The criteria for inclusion of reasonably foreseeable projects in the CEQA No Project include (among other things) that the project has to have completed all environmental compliance and supporting agreements executed (i.e. contracts signed) and permits issued (i.e. 401 Clean Water Act certification). The WaterFix Amendment No Project assumption incorrectly included continued SWP water supply deliveries after the current water supply contracts expire in 2035. DWR did not issue the Notice 76

of Determination (NOD) for the SWP Water Supply Contract Extension Amendment EIR until December 11, 2018 and there were no Contracts were signed as of that date. Consequently, the Water Supply Contract Extension Amendment project fails the CEQA criteria of being reasonably foreseeable as to be included in the No Project alternative.

To correct the fundamentally flawed No Project assumption and resulting corrupted impact analyses in the DEIR, DWR must either:

1) completely revise the DEIR analysis with the corrected No Project assumption of no water deliveries after 2035 and recirculate the revised DEIR for public comment, or,
2) publish a revised NOP for the WaterFix Amendment, hold the obligatory single Public Scoping meeting, and recirculate the DEIR for public comment.

76 (cont.)

Additionally, there are a number of flaws in the logic, reason, justifications and assumptions the DEIR utilized in assuming SWP water supply deliveries would continue under the No Project. These flaws include:

1) If the Water Supply Contracts expire without being amended or a new contract implemented, there would be no basis for issuance of bonds. Without bonds to fund water operations, water supply deliveries would cease. As a consequence of this chain of logic, it is not reasonable or feasible to assume that water supply deliveries could continue in the No Project if the Water Supply Contract is not amended or a new agreement implemented. 77
2) If the Water Supply Contracts are amended or a new contract implemented, it is an Agency discretionary CEQA project that triggers the requirement for an EIR. The DEIR inclusion of continued water supply deliveries assumes that a CEQA compliance process has been completed for continued deliveries when in fact none has occurred. 78
3) If the Contractor "elects to receive continued service after expiration", the Article 4 notification to DWR for continued service is an Agency discretionary CEQA project that triggers the requirement for CEQA compliance and approval. CEQA compliance of an Article 4 extension has not occurred, so it is not reasonable to include an Article 4 extension in the No Project. 79
4) In either # 2 or 3 above, it is a CEQA Discretionary Project would have to occur. ""Discretionary Project": A project which requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity, as distinguished from situations where the public agency or body merely has to determine whether there has been conformity with applicable statutes, ordinances, or regulations." (CEQA Guidelines Section 15357) (Emphasis added) The Water Contractors are public agencies and they would have to deliberate and decide if they were going to exercise their Article 4 option to notify DWR to extend the Water Supply Contract. This agency Discretionary Project triggers the requirement for CEQA compliance. This CEQA compliance has not occurred so it is not reasonable to assume that water supply deliveries would continue when the required compliance has not been completed. 80
5) In either No Project scenario with or without a Water Supply Contract, if water deliveries continue, a new Agency discretionary CEQA project has occurred. This new Agency discretionary project would not be part of the original Water Supply Contract which is expiring. The original Water Supply Contract was exempt from CEQA due to the pre-CEQA 81

implementation date of the original contract. This new Agency discretionary project which includes amending the contract for WaterFix would not be exempt from CEQA. 81 (cont.)

6) There are several CEQA violations exempt in DEIR assumption of continued water deliveries in the No Project.
   a) The DEIR assumes a contract extension will occur, but CEQA compliance on the Agency discretionary project to extend the contract has not been completed or approved. All Agency discretionary projects are subject to CEQA. UC CEQA Handbook, 2.1 " CEQA applies to all "discretionary projects." The term discretionary refers to situations in which a governmental agency can exercise its judgment in deciding whether and how to approve or carry out a project." The handbook makes it clear that all discretionary projects are subject to CEQA. The DEIR assumption that a contract extension could have occurred in the No Project without completing CEQA compliance is presuming a violation of CEQA has or will occur.
   b) CEQA prohibits the No Project from including the presumption of project approval. (Sunnyvale West Neighborhood Assn. v. City of Sunnyvale City Council) The DEIR has fundamentally violated this CEQA requirement by assuming the No Project includes continued water deliveries. Any continuation of water supply deliveries can only occur after the requisite CEQA discretionary project is completed CEQA compliance and been approved. No project (including the original Water Supply Contract) has completed CEQA for continued water deliveries after the current Water Supply Contract expires. The DEIR incorrectly assumes a No Project condition that includes the presumption of a CEQA approval that has not happened.
   c) CEQA section 15126.6 (e) provides that "the No Project alternative should be the project that would be reasonably expected to occur in the foreseeable future if the proposed project were not approved based on current plans." It is not reasonable to assume the continuation of water supply deliveries beyond the year 2035 even if water agencies have expressed interest, attended meetings or even notified DWR of their intent to exercise the Water Contract Article 4 because the Water Contractors have not completed CEQA compliance and certified an EIR of the effects of the CEQA discretionary project of continuing water supply deliveries after the expiration of the current water supply contract. The inclusion of the assumption of continued water supply deliveries after the current Water Supply Contract expiration also does not meet the criteria of reasonably foreseeable as the agencies have not committed any funding to continued water supply deliveries after the current contract expiration. In order for a project to qualify as reasonably foreseeable for the purposes of defining the No Project, prior to the date of the project NOP, the project has to have completed CEQA compliance, be certified by the CEQA Lead Agency, funding to implement the project committed and a schedule for project implementation committed. The extension of the contract duration meets none of these criteria to meet the test of reasonably foreseeable for inclusion in the No Project assumptions. Because the continuation of water deliveries beyond the expiration of the current water supply contract fails to meet the criteria for being reasonably foreseeable, the No Project definition must not include continued water deliveries. Since no project has completed the requisite CEQA compliance for any scenario for continued water deliveries after the current Water Supply

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Contact expiration, it is not reasonable to expect or foreseeable to include continued water deliveries in the No Project assumptions.

i) The EIR asserts that it is reasonable to assume the contract extension as part of No Project scenario because the agencies have the potential to exercise the Article 4 extension, it is reasonably foreseeable. The potential for a project to occur because an agency has the ability to implement it, or an agency expressing interest in implementing it is not sufficient to meet the test of "reasonably foreseeable" for inclusion in the No Project assumptions.

ii) Water Contractor use of SWP water deliveries as part of their water portfolios is not an adequate justification for the EIR to assume that a water contract extension is reasonably foreseeable in the No Project. "The importance of the SWP was further demonstrated during the recent droughts from 2011-2015 and from 2007-2009. Without SWP supplies, water users within some of the Contractors' service areas would have likely faced additional shortages, affecting the local economies and quality of life." The SWP had 0% allocations to some SWP contactors for some of the years cited by the EIR. The fact that there were some SWP zero delivery years is indicative of exactly the opposite of what the Water Supply Contact Extension Amendment EIR asserts in this quote. All SWP Water Contractors have a portfolio of water supplies and have developed contingencies in the event of SWP delivery failure, or in the case of the SWP in some years, zero deliveries. The Water Contractors currently can and do make do without SWP deliveries so it is not inevitable or even reasonable to assume that water supply contracts must be extended because Contractors include SWP water in their water supply portfolios.

iii) The Water Contractors are legally required to reduce their dependence upon Delta sourced water supplies, so they are all in the process of reducing their future water supply needs from the SWP. Given the mandatory reduction in reliance upon delta water supplies, it would be more reasonable to foresee the Contractors utilizing other water sources than to assume a contract extension that includes full contract deliveries as have been assumed in the EIR No Project.

iv) The DEIR assumed that the No Project included continued water supply deliveries based on the conditions that existed at the time of the Notice of Preparation (NOP). At the time of the NOP, the Water Supply Contract Extension Amendment had not completed the required CEQA compliance, so it is not reasonable to assume that water supplies continued under the No Project.

d) CEQA does not allow the comparison of the Proposed Project to a No Project assumption which includes a future plan approval that has not occurred to determine impacts. Since an extension of the duration of water deliveries is a project that has not been approved at the date of the NOP, inclusion of the assumption of continued water deliveries in the No Project is a violation of CEQA and is inconsistent with the findings of this case precedent.

e) The "purpose of the No Project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." CEQA Guideline Section 15126 (1)(3) The EIR, by including continued water deliveries in the No Project assumptions even though a CEQA compliant project to extend water deliveries has not been approved, violates the purpose of the EIR to evaluate the

82 (cont.)

impacts of the project. The incorrect No Project definition violates CEQA Section 15126 (1) (3) by masking the impacts of the project and denies decision makers true insights of the impacts of the project from the proposed water transfers and exchanges amendment.

f) CEQA specifies that lead agencies do not have complete discretion in determining the baseline condition and baseline conditions assumptions may not be altered to hide project impacts from decision makers. The EIR included the assumption of continued water deliveries in the No Project definition as a convenience to simplify the impact analysis and to hide project impacts which is in violation of CEQA. Convenience to simplify an analysis is not an acceptable justification for altering a No Project definition to hide project impacts.

g) CEQA does not allow a No Project definition to incorporate a plan to violate the law.
   i) Water Supply Contracts Extension Amendment has not completed its permitting requirements so to assume it is implemented prior to the NOP assumes that the project was implemented in violation of the law.
   ii) The No Project inclusion of continuation of SWP water deliveries with no changes from the current project assumes the project will continue to violate water quality standards at the same frequency, magnitude, and geographic distribution in which it is currently violating the law.

7) The No Project assumption of continued water deliveries under Article 4 of the Water Supply Contract is in violation of the California State Contracting Manual, section 4.02(a) "Each State agency is responsible for making sure that its contracts comply with applicable legal requirements and are based on sound business practices." (Emphasis added)

   a) Under the EIR No Project assumption, the Article 4 extension of the contract would functionally be in perpetuity and at the sole discretion of the Contractors with no opportunity for DWR to perform its required due diligence in evaluating its ability to perform to the terms of the original contract under changed conditions. The State reserving the right to extend or not extend a contract, especially under changed conditions and new terms, is an essential sound business practice. Automatically extending water supply deliveries in perpetuity solely at the discretion of a third party and abrogating State due diligence in the contract process is in violation of State Contracting requirements for sound business practices. It is not reasonable or foreseeable that the State would choose to violate State Contracting requirements in automatically approving an Article 4 extension of water contract deliveries in the No Project.

   b) Article 4, which the EIR has used as justification for the assumption of continued water deliveries in the No Project, includes Article 4 (1) which provides that the quantities of water supplies up to their maximum current deliveries will not change – ever - the way it is written. The assumption that the same water supply delivery quantities occur under the No Project is in violation of Delta Reform Act which requires a reduction in Contractor reliance upon delta water supplies. This EIR assumption of a No Project that is not compliant with "applicable legal requirements" is a violation of California State Contracting requirements. A No Project definition cannot incorporate the plan or expectation to violate the law, which in turn violates State contracting standards and requirements and CEQA.

   c) Article 4, which the EIR has used as justification for the assumption of continued water deliveries in the No Project, includes Article 4 (2) which provides that the cost of water

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supplies will not change – ever - the way it is written. A guarantee of unchanging costs in perpetuity under changing environmental (e.g. subsidence impacts on SWP capacity) and regulatory conditions (e.g. delta outflows, tributary minimum flows, water temperature management standards, OCAP Biological Opinion Reasonable and Prudent Action mitigations) that fundamentally affect water operation costs is an extremely unsound business practice and therefore is in violation of State Contracting requirements. The No Project definition in the EIR cannot include the assumption that the No Project will violate State Contracting requirements.

d) Article 4, which the EIR has used as justification for the assumption of continued water deliveries in the No Project, includes Article 4 (3) which provides assurances of no changes in water physical conditions of service, including time, place, amount and rate of delivery – ever - the way it is written. Groundwater overdraft, in part or whole due to fluctuating SWP water supply deliveries, in the existing condition has resulted in ground elevation subsidence which has resulted in reduced the flow capacities of some portions of the SWP conveyance. Given the assumption of the groundwater overdraft subsidence trends at the time of the NOP as the existing condition, the No Project would result in substantially greater subsidence and reduction in the SWP capacity to deliver water. "According to DWR, if its SWP allotment exceeds 85 percent, water deliveries to districts in those regions could be hampered because of the limited carrying capacity of the canal." (https://www.westernfarmpress.com/water/how-land-subsidence-could-reduce-surface-water-deliveries-california) Without assuming that some future projects (as yet unplanned and unannounced) to address the impacts of subsidence on SWP conveyance capacity, the SWP will be unable in the No Project to deliver the rate, time or location of water in the presumed water delivery extension. The potential projects to restore flow capacity will be included in the future water cost which violates Article 4 (2). The State agreeing to a contract that requires no future changes to water delivery physical conditions when it already cannot do so under existing conditions is an extremely unsound business practice that violates State contract requirements. A No Project assumption cannot be included that presumes the State will violate its State Contracting Manual requirements.

e) Article 4, which the EIR has used as justification for the assumption of continued water deliveries in the No Project, includes Article 4 (4) which provides assurances of no changes in water chemical quality objectives in any future contract extension – ever – the way it is written. Given the impacts to water quality from climate change to flows, sea level rise salt water intrusion, changing water quality compliance requirements from the State Water Resources Control Board and many other factors it is an extremely unsound business practice for the State to assume that in the No Project that the SWP would be able to meet water quality objectives in the contract and therefore would be an extremely unsound business practice that violates State contract requirements. A No Project assumption cannot be included that presumes the State will violate its State Contracting Manual requirements.

83 (cont.)

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Very Truly Yours,

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January 9, 2019

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Re: Contra Costa County and Solano County Comments on DWR's SWP Water Supply Contract Amendments for Water Management and California WaterFix DEIR

Dear Director Nemeth and Ms. Cassandra Enos-Nobriga:

Contra Costa County, Contra Costa County Water Agency and Solano County (Counties) have reviewed the State Water Project (SWP) Water Supply Contract Amendments for Water Management and California WaterFix Draft Environmental Impact Report (DEIR) released for public comment and review by the California Department of Water Resources on October 26, 2018.

Our two counties include large areas of the nationally-significant Sacramento-San Joaquin Delta. Contra Costa County borders on Old River to the east and the County's entire northern border is bounded by a waterfront that flows from the Delta to the Bay. Contra Costa County is the ninth most populous county in California, with more than 1.1 million residents. Solano County borders on the Sacramento River in the south-east and extends west to Vallejo and northwards to just south of Davis and Winters. It includes the southern portion of the Yolo Bypass and Cache Slough complex. Solano County is the twentieth most populous county in California, with more than 440,000 residents. Many of our residents rely on the Delta for their municipal, industrial and agricultural irrigation water supplies, for their livelihood, and recreation.

The Counties have the following comments on the DEIR.

1. The Lead Agency has Improperly Piecemealed the Full Proposed Project

The DEIR is inadequate under the California Environmental Quality Act (CEQA) because it piecemeals the actual project which is to plan, analyze, design, fund and construct the WaterFix project. (*See* 14 C.C.R. § 15378(a) (defining "project" for CEQA purposes as "the whole of the action"); *see generally Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376.)

DWR currently is involved with four separate sets of environmental documents and decisions for the same WaterFix project.

- WaterFix Final EIR and WaterFix Draft Supplemental EIR.
- SWP Water Supply Contract Amendment Draft EIR (needed to coordinate sharing the costs of paying for WaterFix)
- SWP Contract Extension Final EIR (needed to be able to raise bond funding for WaterFix)
- Addendum to the Coordinated Operation Agreement (COA) – DWR has incorrectly decided they do not need to prepare an EIR but the U.S. Bureau of Reclamation (Reclamation) has prepared an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI)

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These four "projects" are all parts or pieces of the same WaterFix project and must be analyzed as one project.

As noted in several places in the DEIR, one of the project objectives for the SWP Water Supply Contract Amendments is to provide "*a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity*" (page ES-3) and establish "*California WaterFix facilities allocation factors based on [Public Water Agencies] participation percentages to be used for repayment of planning, construction, operation and maintenance costs associated with California WaterFix*" and identify "*the methods of calculating costs and repayment of costs for California WaterFix.*" (page ES-4).

It is clear that the amendments and extension of the SWP contracts are a necessary component of the WaterFix project. As discussed on DWR's Water Supply Contract Extension webpage[1], "*the majority of the capital costs associated with the development and maintenance of the SWP is financed using revenue bonds. These bonds have historically been sold with 30-year terms, but such bonds have not been sold with maturity dates that extend beyond the year 2035, the year the contracts begin to expire.*" The proposed contract extensions "*will allow DWR to again sell bonds with 30-year terms or longer, commensurate with the economic life of the project being financed, thus ensuring the debt service on these bonds remains affordable to SWP Contractors and their water customers.*"

[1] https://water.ca.gov/Programs/State-Water-Project/Management/Water-Supply-Contract-Extension

In other words, the SWP water contractors will not be able to raise the necessary funding at affordable rates to construct and operate the WaterFix project without the proposed 50-year contract extensions. 1 (cont.)

It is also important to note that project Alternative 6 analyzed in the Draft EIR would only allow water transfers and exchanges after the California WaterFix Facilities are completed and operational (page 7-22). As stated on page 7-22 of the Draft EIR, "*Alternative 6 would provide a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity based on the [Agreement in Principle].*"

On page 7-22, DWR attempts to argue that "*Alternative 6 would not build new or modify existing SWP facilities*" and "*would not change the water supply delivered by the SWP as SWP water supply would continue to be delivered to the PWAs consistent with current Contracts terms.*" However, Alternative 6 depends on completion of new SWP facilities (the north Delta intakes and twin or single tunnels and new Byron Tract forebay) and to be cost-effective the WaterFix project would need to improve water supply reliability for the SWP which would change SWP water supplies relative to the WaterFix no action alternative. DWR's arguments in the DEIR (page 7-22) are therefore disingenuous. 2

The Draft EIR is also inadequate because it fails to analyze and disclose SWP and CVP operations after completion of the proposed WaterFix project, which was a specific component of Alternative 6. A new environmental analysis must be prepared that analyzes and discloses and fully mitigates all significant adverse impacts of the proposed project after completion of the WaterFix project.

The DEIR must also consider the proposed project under future conditions and include the effects of increased population, climate change and sea level rise. In the Addendum to the COA Environmental Assessment A, Reclamation compares the Proposed Action with the No Action under existing conditions and considers no other alternatives. The COA EA fails to allow for Climate Change or the SWRCB's proposed flow objectives (WQCP Update).

Similarly, DWR proposes to extend the 29 SWP Contracts through December 31, 2085 (currently the contracts begin to expire in 2035). DWR improperly failed to analyze and disclose the adverse environmental impacts that potentially occur due to SWP operations to meet those SWP Contract water demands under future conditions with sea level rise and other climate change effects. 3

The Water Supply Contract Amendment project is a key component and inseparable from the full WaterFix proposed project. DWR must analyze and disclose, as one project, amendments and extensions to the SWP water supply contracts with and without changes to the COA and with and without a range of alternatives for the WaterFix project. These analyses must be done for existing conditions and for future conditions over the duration of the project (*i.e.*, if not through 2085, through at least 2060 which was the late long-term condition for the Bay Delta Conservation Plan environmental analyses.)

A new Draft EIR and EIS encompassing all these aspects of the WaterFix project must be prepared to analyze, disclose and fully mitigate all significant adverse environmental impacts. The new Draft EIR/EIS must then be released for public review and comment. 3 (cont.)

2. The Proposed Project will have significant but avoidable adverse impacts on Groundwater Hydrology and Water Quality

The current Draft EIR for the SWP contract amendments finds that transfers and exchanges from agricultural to municipal and industrial (M&I) PWAs could result in an increase in groundwater pumping resulting in a net deficit in aquifer volume or lowering the local groundwater table in some areas of the study area with resulting land subsidence (page 5-10-19 et seq.). The Draft EIR finds that this would result in potentially significant impacts on groundwater hydrology and water quality that would remain significant and unavoidable (Table ES-2 on page ES-13). 4

This is unacceptable. Groundwater subsidence, especially in the San Joaquin Valley, is already significant and is causing severe disruptions to water and transportation infrastructure. Any project impacts from WaterFix, the COA changes and SWP contract changes, are avoidable and must be fully mitigated.

A new Draft EIR/EIS must be prepared that commits to full mitigation of reduced groundwater storage and subsidence and the new DEIR/EIS must then be released for public review and comment.

3. The Proposed Project would have significant adverse impacts on Surface Water Hydrology and Water Quality

On page 5-16-15, under 5.16.4.1 Methods of Analysis, DWR acknowledges that "*portions of the proposed amendments (amendments related to water transfers and water exchanges) may result in changes to the frequency, duration, and timing of Table A and/or Article 21 water moving among the PWAs that may impact surface water hydrology and quality.*" However, the Draft EIR does not attempt to full analyze and disclose the magnitude of these adverse surface water hydrology and water quality impacts. 5

DWR argues that the precise location, amount and timing of future water transfers and exchanges are not known at this time, this surface water hydrology and quality analysis is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments (page 5-16-15). DWR states that individual PWAs will address these significant adverse impacts at some future time through "*the appropriate project-level CEQA documentation.*"

This is unacceptable because there is no CEQA commitments in the Draft EIR that will ensure such project-level CEQA documentation will ever be completed. In many cases, PWA's may

rely on single-year transfers and avoid having to complete detailed CEQA environmental reviews and mitigation.

A new Draft EIR and EIS encompassing all these aspects of the WaterFix project must be prepared to analyze, disclose and fully mitigate all significant environmental impacts and where impacts are not disclosed because of programmatic analyses incorporate legally binding environmental commitments to ensure that the PWAs do complete full analyses at the project-level before any water transfers and exchanges can take place. The new Draft EIR/EIS must then be released for public review and comment.

5 (cont.)

4. DWR must include Amendments that Encourage Water Conservation and Future Adjustments to Reduced Availability of Water from the Delta

The 2009 Delta Reform Act established that it is "*(t)he policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts.* (Cal. Water Code section 85021.)

SWP Contract commitments for another 50 years through 2085 for amounts of water well in excess of water that is actually available and surplus to the needs of the Bay-Delta ecosystem is inappropriate. There is also a great deal of uncertainty regarding availability of Delta water in the future given the continuing decline of the Delta ecosystem and global climate change.

The SWP Contracts should be amended to include additional contract off-ramps and requirements for exporters to meet specific and measurable SWP supply reductions with developed projects in the areas of conservation, wastewater reuse, desalination, and local water supply projects, consistent with the Delta Stewardship Council's Delta Plan WR Policy 1 (23 CCR section 5003) – Reduce Reliance on the Delta through Improved Regional Water Self-Reliance. The amount of Delta water available for export in 2085 is unknown but the SWP Contracts must allow for the probability of significant reductions in the Delta water supply.

6

5. DWR needs to work with Delta Representatives in Developing the New Draft EIR/EIS

It is especially important that Delta representatives have a seat at the table for development of Bay-Delta projects like WaterFix and negotiations of voluntary settlement agreements intended to restore and sustain the Delta ecosystem and the ecosystem of the upstream tributaries.

7

Contra Costa County, Contra Costa County Water Agency and Solano County remain willing and available to work with the DWR and other WaterFix proponents to develop a real solution to the current problems of the Central Valley and Bay-Delta system, one that will contribute to achievement of the co-equal goals and improvement of water quality in the Delta, and is consistent with the 2009 Delta Reform Act and Delta Plan.

7 (cont.)

If you have any questions, please contact Ryan Hernandez at (925) 674-7824, or Bill Emlen at (707) 784-6765.

Sincerely,

Ryan Hernandez, Manager
Contra Costa County Water Agency
Contra Costa County

Bill Emlen, Director
Resource Management Department
Solano County

cc: Contra Costa County Board of Supervisors
Solano County Board of Supervisors
Senator Dianne Feinstein
Senator Kamala Harris
Rep. Mark DeSaulnier
Rep. John Garamendi
Rep. Jerry McNerney
Rep. Mike Thompson
Rep. Jared Huffman
Senator Bill Dodd
Senator Nancy Skinner
Senator Steve Glazer
Assemblymember Cecilia Aguiar-Curry
Assemblymember Rebecca Bauer-Kahan
Assemblymember Jim Frazier
Assemblymember Tim Grayson
Assemblymember Buffy Wicks
John Kopchik, Director, Department of Conservation and Development (Contra Costa County)

Letter 9

DOWNEYBRAND

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January 9, 2019

VIA U.S. AND ELECTRONIC MAIL (CONTRACTAMENDMENT_COMMENTS@WATER.CA.GOV)

Cassandra Enos-Nobriga
Executive Advisor, State Water Project
Department of Water Resources
P.O. Box 942836
Sacramento, CA 95814

Re: Comments on October 2018 Draft Environmental Impact Report for State Water Project Water Supply Contract Amendments for Water Management and California WaterFix

Dear Ms. Enos-Nobriga:

These comments on the *State Water Project Water Supply Contract Amendments for Water Management and California WaterFix Draft Environmental Impact Report* (Draft EIR) are submitted on behalf of the parties listed in Exhibit A (Commenting Parties). The Commenting Parties are water users who divert water under contracts and senior water rights in and upstream of the Delta. The Commenting Parties appreciate this opportunity to provide feedback on the proposed changes to the State Water Project (SWP) water supply contracts.

1. The Draft EIR is Not Appropriate for Project-Level Approvals of Transfers or Exchanges and Does Not Adequately Analyze the Program Level Impacts to Water Supplies.

The California Environmental Quality Act (CEQA) draws a distinction between a programmatic EIR and a "project EIR," which is "prepared for a specific project and must examine in detail site-specific considerations."[1] Here, the Draft EIR refers consistently to the proposed changes as a "project,"[2] but provides only general information about potential transfers and exchanges under the proposed contract amendments. For example, the Draft EIR explains that the changes "could result in an increase in transfer from existing conditions,"[3] but does not explain how the

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[1] *Ctr. for Sierra Nevada Conservation v. County of El Dorado*, 202 Cal. App. 4th 1156, 1184 (2012), see also CEQA Guidelines § 15160 (explaining how the content of an EIR may be "tailored to different situations and intended uses"); § 15168 ("[a] program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible.").

[2] See e.g., Draft EIR, at 4-1 to 4-2.

[3] Draft EIR, at 5.1-6; see also Draft EIR, at 5.1-7 ("[E]xchanges may be used more frequently to respond to variations in hydrology, such as dry-year conditions when less SWP water might be available.").

additional transfers and exchanges would impact water supplies available to the Commenting Parties. Rather, the analysis performed in the Draft EIR is referred to as "programmatic"[4] because the specific timing and amount of transfers and exchanges are not known.

The Commenting Parties appreciate that the Draft EIR calls for the appropriate project-level CEQA review for specific transfers and exchanges. Indeed, without details as to the timing, location, and quantity of any given transfer or exchange, the present Draft EIR is insufficient to support project-level decision making on those potentially environmentally significant transfers and exchanges and their attendant impacts. However, the Draft EIR also fails to provide sufficient analysis of the program-level impacts to the Commenting Parties' water supplies. The Commenting Parties request that DWR include the appropriate analysis in the final EIR.

1 (cont.)

2. The Amendments' Relationship to WaterFix Operations Must be Clarified and Water Supply Impacts Must be Analyzed.

The description of the proposed project is confusing and at times inconsistent. For example, the Draft EIR explains that because the volume of water delivered pursuant to the SWP contracts is not expected to change, the proposed amendments "would not change SWP operations."[5] But, the amendments are specifically *intended* to change SWP operations by providing greater flexibility in transfers and exchanges within the SWP system, including under WaterFix operations.[6] Elsewhere, the EIR presents these amendments as "a separate and independent project from California WaterFix," with water management actions that "would need to occur regardless of the outcome of California WaterFix.[7] However, the Draft EIR acknowledges that when and if the California WaterFix project is operational, "water transfers would occur using the California WaterFix facilities," and that the impacts of those facilities' operations have already undergone CEQA review.[8] DEIR 5.2-5. The Draft EIR fails to explain how that prior review disclosed the impacts of the SWP operational changes now proposed by the contract amendments.

2

The increased operational flexibility offered by the proposed contract amendments must be considered within the context of the additional operational flexibility that is proposed by the WaterFix project. The Commenting Parties request that DWR clarify the project description to explain how future transfers or exchanges carried out pursuant to the proposed contract amendments would affect the coordinated operation of the SWP and the Central Valley Project with or without the WaterFix project. In addition, DWR must analyze and disclose how those changes in operation might affect the Commenting Parties' water supplies.

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[4] Draft EIR, at 5.1-5.

[5] Draft EIR, at 1-2.

[6] Draft EIR, at ES-3.

[7] Draft EIR, at 1-2.

[8] Draft EIR, at 5.2-5.

Thank you for your consideration of these comments.

Very truly yours,

DOWNEY BRAND LLP

Meredith E. Nikkel

SOMACH, SIMMONS & DUNN, PC

By: *__/s/Andrew M. Hitchings_____*
Andrew M. Hitchings
Kelley Taber
Aaron A. Ferguson

1539591.1

Exhibit A

List of Commenting Parties on the California WaterFix Supplemental EIR/EIS

Clients represented by Downey Brand LLP

Carter Mutual Water Company
El Dorado Irrigation District
El Dorado Water & Power Authority
Howald Farms, Inc.
Maxwell Irrigation District
Natomas Central Mutual Water Company
Meridian Farms Water Company
Oji Brothers Farm, Inc.
Oji Family Partnership
Pelger Mutual Water Company
Pleasant-Grove Verona Mutual Water Co.
Princeton Codora-Glenn Irrigation District
Provident Irrigation District
Reclamation District 108
Sacramento Municipal Utility District
Henry D. Richter, et al.
River Garden Farms Company
South Sutter Water District
Sutter Extension Water District
Sutter Mutual Water Company
Tisdale Irrigation and Drainage Company
Windswept Land and Livestock Company
Tehama-Colusa Canal Authority
City of Brentwood

Clients represented by Somach Simmons & Dunn PC

Glenn-Colusa Irrigation District
Biggs-West Gridley Water District
Sacramento County Water Agency

HENRY MILLER WATER DISTRICT

OAK FLAT WATER DISTRICT

January 9, 2019

VIA EMAIL: ContractAmendment_comments@water.ca.gov
Copy via U.S. Mail

Cassandra Enos-Nobriga
Executive Advisor, State Water Project
Department of Water Resources
P.O. Box 942836
Sacramento, CA 95814

Re: SWP Water Supply Contract Amendments
Draft Environmental Report

Dear Ms. Enos-Nobriga:

Please accept these comments on behalf of the undersigned parties concerning the Draft Environmental Impact Report ("DEIR") for the State Water Project ("SWP") Water Supply Contract Amendments for Water Management and California WaterFix (the "Project").

I. DWR Improperly Piecemeals Its Environmental Review

It is well-settled that an agency cannot skirt the requirements of CEQA by piecemeal environmental review.[1] Such "piecemealing" occurs when a large project is chopped into many smaller projects, each with minimal environmental impacts that may be cumulatively disastrous.[2] Here, DWR has divided the WaterFix into three separate EIRs—

1

[1] *Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 31 Cal.App.4th 1170, 1208.
[2] *Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 283–284.

one for the SWP contract extension, another for the contract amendments considered in this letter, and a third EIR for the physical WaterFix project. The contract extension is necessary for the financing of WaterFix to be viable. Long term bonds aren't viable in the bond market if the contracts that require the payments used for debt service aren't extended. If the project cannot be financed with long term bonds, the SWP contractors will be required to fund WaterFix construction costs from current budgets, something that 28 of the 29 contractors, including Metropolitan and KCWA, do not have the financial capacity to do. Further, the Project is also a necessary precedent to achieving the cost allocation among SWP contractors that is an express WaterFix project objective.[3] Failure to achieve that project objective would produce the politically prohibitive result of passing WaterFix costs on to the five north-of-Delta contractors, which DWR would have to do absent the amendments proposed in the present Project. Therefore, DWR is impermissibly piecemealing its environmental review by dividing the WaterFix project into three projects and undertaking a separate EIR for each. DWR has not sufficiently addressed the scope of the larger project in the present DEIR.

1 (cont.)

II. The DEIR Fails to Address the Environmental Effects of Long-Term or Permanent Economic Damage Resulting From the Project

Under CEQA, if economic or social effects of a proposed project directly or indirectly will lead to adverse physical changes in the environment, then CEQA requires disclosure and analysis of these resulting physical impacts.[4]

Although the economic pressures of the Project and WaterFix are clear and substantial, DWR makes no attempt to address the environmental effects resulting from such pressures. These effects, which include potential long-term land disuse, should be discussed in this DEIR because this project is a necessary precedent to WaterFix, as discussed above. DWR acknowledges the financial pressures of WaterFix in this DEIR, noting that "[t]he participating PWAs are expected to have a notable increase in their financial obligations for California WaterFix costs…"[5] Failure to evaluate such effects is a failure to proceed as required by CEQA.

2

[3] SWP Water Supply Contract Amendments for Water Management and California WaterFix DEIR, p. ES-3.

[4] *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1205; CEQA Guidelines § 15064 subd. (e).)

[5] SWP Water Supply Contract Amendments for Water Management and California WaterFix DEIR, p. 4-8.

As alleged in the "Answer of Interested Persons To Complaint for Validation" filed by some of the undersigned parties in response to DWR's validation action for WaterFix,[6] the SWP with the additional burden of WaterFix costs (currently unknown) may be unaffordable to farming customers or other water users or constituents who have to pay for SWP costs. This could lead to severe economic consequences for farming families and entities, among others, including loss of land and businesses and bankruptcies. Further, the draft EIR provides that the Project would amend SWP Water Supply Contracts such that the north of Delta contractors would be exempt from WaterFix cost allocation. This change is proposed because the north of Delta contractors are presumed to derive no benefit from WaterFix.[7] DWR lacks substantial evidence for its assertion that the north of Delta contractors will derive no benefit from WaterFix, and exempting such contractors from cost allocation increases the financial burden on remaining contractors, thereby increasing the likelihood of the economic effects above.

2 (cont.)

The DEIR should address the long-term or permanent economic effects stemming from the allocation of WaterFix costs, including bankruptcy of entities unable to bear those costs. Long-term or permanent disuse of farmland would impact a number of the resource categories examined by DWR, including:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Geology, Soils, and Mineral Resources
- Groundwater Hydrology and Water Quality
- Land Use and Planning
- Population, Employment, and Housing

Long term or permanent disuse of farmland would degrade the existing visual character of quality of a site and its surroundings (aesthetics); convert farmland to non-agricultural use (agriculture and forestry resources); increase the rate of soil erosion, resulting in an increase of particulate matter in the air (air quality); result in substantial soil erosion or loss of topsoil (geology, soils, and mineral resources); and interfere with groundwater recharge due to loss of return flow (groundwater hydrology and water quality).

Further, long-term or permanent disuse of agricultural land could conflict with a land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect. Such disuse of agricultural land could also substantially affect population, employment,

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6 See Exhibit C hereto.

7 SWP Water Supply Contract Amendments for Water Management and California WaterFix DEIR, p. 4-8.

and housing around the disused land, including in predominantly Latino communities dependent upon agriculture. These communities would dry up along with the surrounding land.

DWR should revise the current DEIR to provide analysis of economic factors that may cause land owners to go out of business as a result of the costs of WaterFix, and the corresponding environmental impacts including those discussed above. In addition, DWR should consider an alternative to the Project that provides a full or partial opt-out provision for SWP contractors who do not wish to participate, or who do not wish to participate fully, as a way to mitigate economic damage and the corresponding environmental effects.

3 (cont.)

III. Conclusion

DWR's DEIR has failed to comply with CEQA requirements in that, among other things, it does not consider the impact of permanent or long-term land disuse resulting from the financial pressures of WaterFix, fails to consider a Project alternative providing at least a partial opt-out provision for SWP contractors, and has improperly piecemealed its environmental analysis. DWR's DEIR should be revised to address these concerns and recirculated in accordance with CEQA requirements before DWR considers approval of the project.

4

The undersigned parties appreciate the opportunity to submit these comments.

[Signature page follows immediately hereafter]

KLEIN DENATALE GOLDNER

Dated: January 9, 2019

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Attorneys for Belridge Water Storage District, Berrenda Mesa Water District, and Lost Hills Water District

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Dated: January 9, 2019

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11.232.01

December 10, 2018

VIA EMAIL
ContractAmendment_comments@water.ca.gov

Cassandra Enos-Nobriga
Executive Advisor, State Water Project
Department of Water Resources
P.O. Box 942836
Sacramento, CA 95814

Re: Comments to Draft EIR Submitted by North Coast Rivers Alliance, Pacific Coast Federation of Fishermen's Associations, Institute for Fisheries Resources, San Francisco Crab Boat Owners Association, and Winnemem Wintu Tribe, addressing the State Water Project Water Supply Contract Amendments for Water Management and California WaterFix

Dear Ms. Enos-Nobriga:

I. INTRODUCTION

On behalf of North Coast Rivers Alliance, Pacific Coast Federation of Fishermen's Associations, Institute for Fisheries Resources, San Francisco Crab Boat Owners Association, and Winnemem Wintu Tribe (collectively "Conservation Groups"), we submit the following comments on the Department of Water Resources' ("DWR's") Draft Environmental Impact Report ("DEIR") for the State Water Project Supply Contract Amendments for Water Management and California WaterFix (the "proposed Project"). The proposed Project would amend State Water Project ("SWP") contracts to allow additional flexibility and to accommodate DWR's WaterFix.

II. THE DEIR IS DEFICIENT

The "heart of [the California Environmental Quality Act, ("CEQA")]" is the environmental impact report. *Citizens for Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564. "The EIR, with all its specificity and complexity, is the mechanism prescribed by CEQA to force informed decision making and to expose the decision making process to public scrutiny." *California Native Plant Society v. City of Santa Cruz* ("*California Native Plant Society*") (2009) 177 Cal.App.4th 957, 978 (quoting *Planning & Conservation League v.*

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Department of Water Resources (2000) 83 Cal.App.4th 892, 910). Here, DWR's DEIR lacks the specificity and complexity necessary for the public and decisionmakers to comprehend the environmental consequences of DWR's proposed Project.

The DEIR contains very little useful information about the potential impacts of the proposed Project. Instead, it indicates that the impacts of water transfers contemplated under the proposed Project would be "implemented using existing . . . regulatory processes, including CEQA compliance." DEIR 4-7, 5.2-4, 5.3-6, 5.4-7, 5.5-8, 5.6-16, 5.7-6, 5.8-7, 5.9-9, 5.10-16, 5.11-5, 5.12-4, 5.13-9, 5.14-3, 15.15-5, 5.16-16, 5.17-6, 5.17-7, 5.18-5, 5.19-5, 5.20-13. And while the DEIR presents alternatives to the proposed Project, none of them appear to "avoid or substantially lessen any of the [proposed Project's] significant effects," as CEQA requires. Guidelines § 15126.6(a). Instead, the DEIR concludes that they would have similar or greater impacts – but again, without any detailed analysis of those impacts. DEIR 7-5 to 7-25.

Further, the DEIR fails to appropriately address the impacts of WaterFix, even as the proposed Project is intended to facilitate WaterFix's implementation through "repayment of planning, construction, operation and maintenance costs" by establishing cost allocation factors. ES-4. Because the proposed Project facilitates the planning, construction, and operation of the WaterFix project, NCRA'S previous comments on WaterFix apply equally to this DEIR.[1]

For these reasons, as discussed more fully below, DWR's DEIR fails to provide the information necessary to meet CEQA's informational goals. *California Native Plant Society*, 177 Cal.App.4th at 978.

A. AMENDMENTS TO STREAMLINE WATER EXCHANGES AND TRANSFERS WOULD RESULT IN SIGNIFICANT IMPACTS NOT CONSIDERED IN THE DEIR

DWR proposes to amend the existing contracts to streamline the process for transfers and exchanges of SWP water between the public water agencies ("PWAs"). DEIR 4-2 to 4-8. The DEIR claims that these amendments "would provide the PWAs with increased flexibility for short-term and long-term planning and management of their SWP water supplies." DEIR 4-6; *see also* DEIR 4-7. But that increased flexibility to the PWAs comes at a significant cost to the environment.

1 (cont.)
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6

[1] NCRA's prior comments from January 30, 2017, October 30, 2015, and July 29, 2014, are attached hereto as Exhibits 1-2.

The proposed water supply transfer and exchange amendments would "result in a greater amount of water transfers among the PWAs than under the current Contract provisions," and "exchanges may be used more frequently" as well. DEIR 4-7. Although the DEIR provides that these "exchanges may be used more frequently to respond to variations in hydrology, such as dry-year conditions when less SWP water might be available," it makes no effort to quantify the extent of these changes, or the extent of their impacts on the environment. DEIR 5.1-7. Some of the most problematic amendments include those involving storing and handling of carryover water. For example, AIP I.5.1 provides that PWAs can store and transfer or exchange carryover water in the San Luis Reservoir in the same year; previously Article 56(c)(4) did not allow for this type of exchange. DEIR 4-5. Further, the new amendment provides that the PWA may transfer and exchange carryover water to another PWA's service area. This is a significant change, as previously these PWAs were required to use carryover water in their own service areas. *Id.*

Notably, DWR makes no attempt to quantify or explain the extent of these transfers and exchanges, or how the environment could be impacted by transfers and exchanges essentially being regulated and decided by these PWAs. CEQA requires an agency to "use its best efforts to find out and disclose all that it can" regarding significant impacts. CEQA Guidelines §§ 15121, 15144; *Vineyard Area Citizens et al. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 440 ("*Vineyard*"). Contrary to CEQA, DWR – conceding "significant impacts" – presents virtually no analysis of how these amendments could impact the environment. DEIR ES-11, ES-14.

The DEIR appears to claim that because "the proposed project would not include any permanent changes to the PWA's Annual Table A amounts," DWR need not analyze the impacts of increased transfers and exchanges. *See* DEIR 5.1-6. However, this ignores the fact that increased water transfers and exchanges result in different and potentially greater environmental impacts as water is applied to different locations, at different times, and in different amounts. Consequently, the DEIR fails to explain those different impacts to the public, and therefore fails to foster informed decisionmaking, in violation of CEQA. Public Resources Code § 21002.1; CEQA Guidelines §§ 15121, 15126, 15126.2.

The DEIR claims that because the "precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in the DEIR is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments." DEIR 5.1-5. However, the DEIR does not even accomplish this "programmatic" analysis. The *only* environmental effects described as resulting from increased transfers are that those transfer "could potentially result in less SWP water supplied to agricultural PWAs and more to M&I PWAs." DEIR 5.1-7. According to the DEIR, "Most of the transfers and exchanges would be expected to occur south of the Delta and therefore would not affect SWP operations within the Delta. For any north-of-

6 (cont.)

Delta to south-of-Delta transfers or exchanges, the additional increment of SWP water transferred or exchanged and exported from the Delta potentially would result in a slight increase in exports but would be within existing operations." DEIR 5.1-7.

But the DEIR presents this information without citing to any source, and without explaining *why* most of the transfers would be expected to occur south of the Delta, and *why* that necessarily means that they would not affect SWP operations in the Delta.

6 (cont.)

The DEIR explicitly allows for north-of-Delta transfers, and indicates that those transfers would result in an increase in exports. *Id.* But the DEIR dismisses that risk, claiming – without reason – that it would be within existing Contract operations. This analysis is both cursory and conclusory, and fails to provide decisionmakers and public with the information they need to adequately analyze the Project's impacts. Public Resources Code § 21002.1; CEQA Guidelines §§ 15121, 15126, 15126.2; *Vineyard*, 40 Cal.4th at 440 (EIRs must provide an "analytically complete and coherent explanation" of impacts).

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Further, this last example illuminates the contradictory nature of the DEIR. It emphasizes repeatedly that it cannot possibly analyze the impacts since it cannot predict future transfers and exchanges. DEIR 5.1-5. Yet, this uncertainty is immediately forgotten, and DWR is able to declare with confidence that "[m]ost water transfers would occur among the PWAs located south of the Delta." DEIR 5.1-6.

While the DEIR admits that impacts to groundwater would be significant and unavoidable, that analysis still suffers the same deficiencies as the remainder of the DEIR. DEIR 5.10-17 to 5.10-24. Rather than identifying the actual impacts of the water transfers and exchanges, the DEIR simply claims that because DWR does not know what will happen, the impacts will be significant and unavoidable. *Id.* For example, the DEIR equivocates that "while there is the potential for the proposed project to be beneficial to groundwater levels, there is also the potential for the proposed project to result in a net deficit in aquifer volume or lowering the local groundwater table." DEIR 5.10-18; *see also* DEIR 5.10-19, 5.10-22. The entire groundwater analysis, and in fact the entire EIR, is fraught with this same "anything could happen" mantra. But CEQA requires more. *California Native Plant Society*, 177 Cal.App.4th at 978. Simply concluding that the impact would be significant and unavoidable, without actually analyzing what that impact would include, is not sufficient. The EIR must provide an actual analysis of the groundwater impacts of the Project, including the impacts from the WaterFix.

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Likewise, the DEIR provides: "The incremental contribution of the proposed project's effect on groundwater supplies would be cumulatively considerable . . . [t]his cumulative impact would be significant." DEIR ES-11. However, DWR fails to describe and mitigate these impacts. Instead, it points to the Sustainable Groundwater Management Act ("SGMA"),

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claiming that because it "is in the process of being implemented and because the extent, location, and implementation timing of groundwater pumping associated with changes in transfers and exchanges implemented by PWAs are not known, assumptions related to the ability of SGMA to mitigate any changes in groundwater levels are speculative." *Id.*

9 (cont.)

DWR's implication that it has no control over the potential groundwater impacts of increased transfers and exchanges is both untrue and contrary to its CEQA duties to analyze those impacts. 5.10-19 to 5.10-21, 5.10-23 to 5.10-24. DWR claims that it "has no information on specific implementation of the transfers and exchanges from the proposed project and it has no authority to implement mitigation measures in the PWA service area." DEIR 5.10-21, 5.10-24. But that is not true. If DWR were to adequately analyze the potential Project impacts, it could then mitigate those impacts.

Instead of describing the detrimental effects the Project's increased transfers and exchanges would have on subsidence-related impacts affecting public safety, habitat, and infrastructure,[2] DWR again points to SGMA as a reason to not analyze these impacts. *See* DEIR ES-14 ("Therefore, because DWR has no information on specific implementation of the transfers and exchanges from the proposed project and it has no authority to implement mitigation measures in the PWA service area, the cumulative impact would remain significant and unavoidable."). However, this sidesteps the analysis that CEQA requires. Simply referring to the fact that another piece of legislation – which will not be fully implemented for another 30 years – exists does not satisfy DWR's CEQA duty to use its "best efforts to find out and disclose all that it can." CEQA Guidelines §§ 15121, 15144; *Vineyard*, 40 Cal.4th at 440. And it certainly does not provide an "analytically complete and coherent explanation" of this project's impacts. *Id.* DWR cannot simply point to a new statute and, without more, magically absolve itself of its existing responsibility under CEQA to analyze the impacts caused by what it admits will be an increase in exchanges and transfers of water rights.

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Furthermore, DWR could limit transfers and exchanges to excess water available from SWP contracts only. Such a limitation would avoid "agricultural PWAs . . . increas[ing] groundwater pumping as a replacement water source for transferred water supplies," and the resulting deficit in aquifer volume. DEIR 5.10-18 to 5.10-19, 5.10-22 to 5.10-23. DWR's failure to actually analyze and feasibly mitigate the Project's significant and unavoidable groundwater impacts violates CEQA.

[2] U.S. Geological Survey, *Land Subsidence in California* (Oct. 16, 2017), available at https://ca.water.usgs.gov/land_subsidence/.

The DEIR's deficiencies are further exacerbated by its lack of analysis of the impacts that it actually does perceive as within DWR's control and purview. For example, the DEIR provides that the amendments would "allow the PWAs to transfer water based on terms they establish for cost compensation and duration," and accordingly "a water transfer under the proposed project could be as long as the remainder of the term of the PWA's Contract." DEIR 5.1-6. Although the DEIR touts itself as providing a "programmatic" environmental analysis, this is an example of its failure to provide any analysis whatsoever of an identified environmental impact. The DEIR must identify any potential environmental impacts associated with increased water transfers, such as impacts on supply and demand, resulting effects on any disadvantaged communities, and impacts on overall water rights and structure.[3] 11 12

Similarly, the DEIR indicates that the amendments provide for "establish[ing] the allocation of costs to the south of Delta PWAs for California WaterFix," yet conclusorily asserts that "[t]his could result in an increase in transfer from existing conditions," without making any attempt to describe the environmental impacts associated with increased transfers. DWR must analyze the impacts of these increased transfers on water security and allocation—especially given the likelihood of increased future drought conditions, resulting impacts on water security, and associated impacts to fish species,[4] in order to comply with CEQA and provide the public with the ability to make informed decisions regarding to this project's far-reaching environmental impacts. Public Resources Code § 21002.1; CEQA Guidelines §§ 15121, 15126, 15126.2. 13

B. THE DEIR FAILS TO STUDY A REASONABLE RANGE OF CEQA COMPLIANT ALTERNATIVES

CEQA confirms "it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives . . . available which would substantially lessen the significant environmental effects of such projects . . . ." Public Resources Code § 21002. The Legislature directed that an "[EIR] shall include a detailed statement setting forth . . . [a]lternatives to the proposed project," and declared that one of "[t]he purpose[s] of an [EIR] is . . . to identify alternatives to the project." Public Resources Code §§ 21002.1(a) (second quote), 14

[3] The National Academic Press, *Assessing Water Transfers and Their Effects: An Introduction to the Case Studies* (2018), available at https://www.nap.edu/read/1803/chapter/6#118.

[4] Water transfers would generally occur in dry years when fish are present in the Delta; fish are most at risk in the driest years when their habitat is most degraded. *See* Maven, *Dr. Bruce Herbold: Delta Flows and the Effects of Water Transfers* (Sept. 21, 2017), available at https://mavensnotebook.com/2017/09/21/dr-bruce-herbold-delta-flows-and-the-effects-of-water-transfers/.

21061, 21100(b)(4) (first quote). Indeed, CEQA requires an EIR to describe a reasonable range of alternatives that could feasibly attain most of the basic objectives of the project *while avoiding or substantially lessening any of its significant effects*. CEQA Guidelines § 15126.6(a) and (f). "An EIR's discussion of alternatives must contain analysis sufficient to allow informed decision making." *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 404.

The DEIR states in the most general terms possible that the alternatives presented would have impacts that are similar to or greater than the impacts of the proposed Project. *E.g.* DEIR 7-5 (Table 7-1). But, as discussed above, the DEIR fails to address many of the Project's significant impacts. Thus, it is impossible for the public or decisionmakers to gauge whether the alternatives discussed would, in fact, have more impacts, or different impacts, or more severe impacts, than would the proposed Project. But assuming that DWR's bare conclusion is correct, it follows that DWR has failed to present a reasonable range of alternatives as *none* of these alternatives avoid or substantially lessen the Project's significant and unavoidable impacts on groundwater supply and land subsidence. DEIR 7-5; Guidelines § 15126.6(a), (f). 14 (cont.)

Furthermore, DWR's conclusion that Alternative 4 is environmentally superior is not supported by its analysis. DEIR 7-24 to 7-25. While DWR describes Alternative 4 as having "similar" impacts to groundwater resources, the DEIR actually reveals that it "could result in an increase in groundwater pumping in some areas of the study area" without quantifying whether these impacts could be worse than the impacts posed by the proposed Project. DEIR 7-17 to 7-18. As Alternative 4 allows PWAs more flexibility than the proposed Project, it follows that Alternative 4 would enable additional groundwater pumping as compared to the proposed Project. DEIR 7-16 to 7-17. Because Alternative 4 presents the potential for *greater* impacts than the proposed Project, it cannot be the environmentally superior alternative. 15

DWR argues that absent the proposed Project, there would be greater environmental impacts because public water agencies "may seek alternative sources of surface water," and develop or modify existing "surface or groundwater supplies" to meet water supply needs during dry year conditions. DEIR 7-7. The DEIR presents any resulting construction as potentially significant impacts arising from the alternatives. DEIR 7-7 to 7-8. Further, DWR argues that agricultural public water agencies may fallow lands or change cropping patterns. DEIR 7-7. Yet, even with the proposed Project, PWAs may still undertake similar activities. Thus, the DEIR's assumption that increased pumping and the need for alternative water supplies would cause all other alternatives to be more impactful than the proposed Project lacks support. DEIR 7-4 to 7-16, 7-19 to 7-24. 16

III. CONCLUSION

For the reasons stated above, the DEIR is deficient. DWR must study and disclose the potential impacts of the proposed Project – including impacts stemming from the proposed Project's facilitation of WaterFix. Further, DWR must address alternatives and mitigation measures that "avoid or substantially lessen" the proposed Project's impacts. DWR must comply with CEQA, and until it does so it may not move forward with the proposed Project. 17

Respectfully submitted,

Stephan C. Volker
Attorney for Conservation Groups

SCV:taf

Attachments: Exhibit 1: January 30, 2017 Comment Letter and Exhibits 1 and 2 thereto.

Exhibit 2: October 30, 2015 Comment Letter and Exhibits 1-4 thereto, including July 29, 2014 Comment Letter and Exhibits 1-2 thereto.

EXHIBIT 1

to North Coast Rivers Alliance, et al.'s
Dec. 11, 2018 Comment Letter

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January 30, 2017

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Re: Comments of North Coast Rivers Alliance, San Francisco Crab Boat Owners Association, Inc., Pacific Coast Federation of Fishermen's Associations, and the Institute for Fisheries Resources on the BDCP/WaterFix FEIR/FEIS

Dear Mr. Croyle and Ms. White:

North Coast Rivers Alliance, San Francisco Crab Boat Owners Association, Inc., Pacific Coast Federation of Fishermen's Associations, and the Institute for Fisheries Resources (collectively "Conservation Groups") hereby comment on the Final Environmental Impact Report/Final Environmental Impact Statement ("FEIR/FEIS") for the California WaterFix prepared for the California Department of Water Resources ("DWR"), the United States Bureau of Reclamation ("Reclamation"), the National Marine Fisheries Service ("NMFS"), and the U.S. Fish and Wildlife Service ("USFWS"). As the U.S. Environmental Protection Agency ("EPA") has made clear, the FEIR/FEIS is inadequate to inform the public and decisionmakers of the disastrous environmental consequences of the WaterFix. The WaterFix is a boondoggle that will destroy a unique environmental resource – the Sacramento-San Joaquin River Delta – upon which all Californians depend. It should be rejected. At a minimum, an adequate environmental impact report and statement must be prepared.

I. INTRODUCTION

California's growing and improvident dependence on cheap, publicly-subsidized water – despite climate change's inexorable reduction in that supply – threatens to destroy the Delta and its commercial and sports fisheries, and permanently extirpate irreplaceable endangered species. The purpose of Alternative 4A – the formal name for the WaterFix – is to enable *more* water deliveries by removing large quantities of water from the Sacramento River *before* it can flow through the Delta ecosystem. Doing so will jeopardize the ecological well-being of the Delta to increase deliveries of publicly subsidized water to private agricultural interests in the Central Valley. Removing water from the Delta will cause saline waters to intrude, irreparably harming water quality, and increase the temperature of and pollution in the small quantity of water that remains, with dire effects on fish, wildlife, and surrounding communities.

Conservation Groups have repeatedly pointed out the many ways in which the DEIR/DEIS and RDEIR/SDEIS violate the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000 *et seq*., and the National Environmental Policy Act, 42 U.S.C. section 4321 *et seq.,* including in their DEIR/DEIS comments dated July 29, 2014 (comment letter DEIRS-1735), and their RDEIR/SDEIS comments dated October 30, 2015 (comment letter RECIRC-2836). Conservation Groups noted – among a long list of woeful deficiencies – that the project description is inadequate; no alternatives that would substantially *reduce* Delta exports were studied; impacts on public trust resources were ignored; the analysis of impacts to water resources, biological resources, and land use is deficient; and cumulative impacts and the effects of global climate change were overlooked. The FEIR/FEIS fails to correct the many flaws pointed out in Conservation Groups' prior comments. Conservation Groups incorporate those comments by reference as if fully set forth herein.

The FEIR/FEIS is itself inadequate for the seven additional reasons discussed below. First, review of the WaterFix by USFWS and NMFS under the Endangered Species Act ("ESA") is incomplete, but under bother NEPA and CEQA the public is entitled to review and comment upon the adequacy and consequences of the mitigation measures that Reclamation and DWR propose to reduce impacts to endangered species. *San Luis & Delta-Mendota Water Authority v. Jewell,* 747 F.3d 581, 645-655 (9th Cir. 2014); 40 C.F.R. § 1508.25(a)(1); *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 93. Second, and similarly, the FEIR/FEIS is unlawful because it does not include information and alternatives sufficient for the responsible and cooperating agencies that will rely on it in the future to discharge their duties. *Habitat & Watershed Caretakers v. City of Santa Cruz* (2013) 213 Cal.App.4th 1277, 1298. Third, the FEIR/FEIS' treatment of global climate change is inadequate. It contains inaccurate assumptions about sea level rise and fails to analyze the manner in which a warming climate will exacerbate the environmental impacts of the WaterFix. Fourth, the FEIR/FEIS' analysis of the impacts on the Trinity River is inadequate. Fifth, substantial new information regarding the project's impacts has come to light since publication of the RDEIR/SDEIS, rendering the RDEIR/SDEIS inadequate to inform the public about those impacts, so the FEIR/FEIS must be

recirculated. Sixth, the FEIR/FEIS fails to sufficiently respond to public comments. Seventh, the WaterFix cannot be approved under the Delta Reform Act.

II. THE PUBLIC IS ENTITLED TO REVIEW AND COMMENT UPON THE MITIGATION MEASURES THAT WILL BE USED TO REDUCE HARM TO ENDANGERED SPECIES

The "heart of CEQA" is the environmental impact report. *Citizens for Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564. "The EIR, with all its specificity and complexity, is the mechanism prescribed by CEQA to force informed decision making and to expose the decision making process to public scrutiny." *California Native Plant Society v. City of Santa Cruz* ("*California Native Plant Society*") (2009) 177 Cal.App.4th 957, 978 (quoting *Planning & Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 910). Similarly, the environmental impact statement "serves NEPA's 'action-forcing' purpose" by ensuring that the agency "will have available, and carefully consider, detailed information concerning significant environmental impacts" and "guarantee[ing] that the relevant information will be made available to the larger audience." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). But here, the FEIR/FEIS cannot serve these lofty purposes because it deliberately postpones consideration of the environmental impacts of many aspects of the WaterFix.

The FEIR/FEIS's analysis of impacts to endangered species is inadequate, as Conservation Groups have repeatedly pointed out. *E.g.,* DEIR/DEIS comments (DEIRS-1735) at 8-11; RDEIR/SDEIS comments (RECIRC-2836) at 8-10. The WaterFix threatens to cause the extinction of numerous species. *See id.* But the FEIR/FEIS merely states that adverse effects on endangered species will be prevented through a *future process* that will lead to the issuance of Biological Opinions under section 7 of the Endangered Species Act. *E.g.,* Response to Comment RECIRC2836-13 (under the future section 7 consultation process, "impacts to critical habitat will be avoided, minimized and mitigated"); Response to Comment RECIRC2836-20 ("ESA compliance . . . would be achieved solely through section 7. . . [¶¶] A biological opinion is not required prior to the release of the . . . EIR/EIS").[1] But the public is entitled to review and comment upon the adequacy of the mitigation measures that DWR and the Bureau use to avoid impacts to endangered species. Moreover, these mitigation measures may themselves have impacts, as the EPA noted in its RDEIR/SDEIS comments. Comment Letter RECIRC2577 at 4 ("Biological Opinions and Incidental Take Permits . . . could result in environmental impacts that

[1] *See also* FEIR at 11-3208 through 11-3210 ("Mitigation Measure AQUA-22d would ensure . . . delta outflows do not result in changes in longfin smelt abundance. Therefore, . . . this impact would not be adverse. . . . [¶¶] Mitigation Measure AQUA-22d: DWR will consult with DFW as part of the 2081 incidental take permit process to . . . fully mitigate any impacts of operation-related take of longfin smelt attributable to the project").

have not been analyzed"). Postponing the formulation of mitigation measures until after approval of the project is a form of *subterfuge that obscures the impacts of the WaterFix* and hinders environmental review.

Case law under both NEPA and CEQA makes clear that deferred analysis and disclosure of a project's impacts violates these statutes. The Ninth Circuit Court of Appeals recently ruled that Reclamation violated NEPA when it failed to prepare an EIS about its adoption and implementation of Biological Opinions for CVP/SWP operations. *San Luis & Delta-Mendota Water Authority v. Jewell,* 747 F.3d 581, 645-655 (9th Cir. 2014). "[I]t is beyond dispute that Reclamation's implementation of the BiOp has important effects on human interaction with the natural environment." *Id.* at 653. Under NEPA it is not sufficient to postpone until later what should be studied now; NEPA regulations require "connected actions" – defined as actions that "automatically trigger other actions which may require environmental impact statements" – to be analyzed "in a single impact statement." 40 C.F.R. § 1508.25(a)(1); *see also* 40 C.F.R. § 1502.25(a) ("agencies shall prepare draft environmental impact statements concurrently with and integrated with environmental impact analyses and related surveys and studies required by the . . . Endangered Species Act"). To assure that all environmental impacts are considered during the decision-making process, the "NEPA process" must "be integrated with agency planning 'at the earliest possible time"; that "purpose cannot be fully served if consideration of the cumulative impacts of successive, interdependent steps is delayed until the first step is already taken." *Thomas v. Peterson*, 753 F.2d 754, 760 (9th Cir. 1985) (*overruled on other grounds as stated in Cottonwood Environmental Law Center v. U.S. Forest Service*, 789 F.3d 1075 (9th Cir. 2015)).

Here, approval of the WaterFix will "automatically trigger" preparation of Biological Opinions – "which . . . require environmental impact statements" as made clear by *Jewell* – so the actions are related and must be analyzed together and not successively as the FEIR/FEIS claims is proper. *See, e.g.,* Response to Comment RECIRC2836-20 ("A biological opinion is not required prior to the release of the . . . EIR/EIS" because in the future agencies will complete the "environmental review process, such as . . . NEPA" that applies to issuance of biological opinions). Moreover, the ESA also independently requires consultation to occur before project approval. *Karuk Tribe of California v. United States Forest Service*, 681 7 F.3d 1006, 1030 (9th Cir. 2012) ("The Forest Service therefore had a duty under Section 7 of the ESA to consult with the relevant wildlife agencies before approving the" project in question).

Similarly, under CEQA segmentation of projects is improper and agencies are forbidden from deferring the formulation of mitigation measures. CEQA's "requirements cannot be avoided by chopping up proposed projects into bite-size pieces." *Plan for Arcadia, Inc. v. City Council of Arcadia* (1974) 42 Cal.App.3d 712, 726. Successively analyzing related projects

> runs the risk that some environmental impacts produced by the way the two matters combine or interact might not be analyzed in the separate environmental reviews. Furthermore, if the two matters are analyzed in sequence . . . and the

> combined or interactive environmental effects are not fully recognized until the review of the second matter, the opportunity to implement effective mitigation measures as part of the first matter may be lost. This could result in mitigation measures being adopted in the second matter that are less effective than what would have been adopted if the matters had been analyzed as a single project.

Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora (2007) 155 Cal.App.4th 1214, 1230. And allowing agencies to defer formulating mitigation measures until "after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decision making" because "the development of mitigation measures, as envisioned by CEQA, is not meant to be a bilateral negotiation . . . but rather, an open process that also involves other interested agencies and the public." *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 93. Neither DWR nor Reclamation nor any members of the public can fully apprise themselves of the environmental impacts of approving the WaterFix project if DWR and Reclamation are permitted to postpone developing the measures meant to ensure protected species do not go extinct until after the WaterFix project is approved. The public is entitled to review these mitigation measures to determine their environmental impacts and efficacy *before* project approval.

It is also independently unlawful for DWR and Reclamation to substitute ESA review for NEPA and CEQA review, as the FEIR/FEIS does, because the standards under the two statutes are entirely different. The ESA is concerned with avoiding jeopardy to endangered species, whereas NEPA and CEQA mandate the disclosure of all significant impacts whether or not they also cause jeopardy. For the "purposes of NEPA, a project need not jeopardize the continued existence of a threatened or endangered species to have a 'significant' effect on the environment." *Klamath-Siskiyou Wildlands Center v. U.S. Forest Service*, 373 F.Supp.2d 1069, 1080 (E.D.Cal. 2004).

By segmenting related approvals, postponing the development of mitigation measures meant to avoid impacts to endangered species until after approval of the Project, and improperly equating a significant impact with jeopardy to a species, DWR and Reclamation prevented informed public participation and agency decisionmaking, and thereby violated both NEPA and CEQA.

III. THE FEIR/FEIS DOES NOT INCLUDE SUFFICIENT INFORMATION TO ALLOW RESPONSIBLE AGENCIES TO DISCHARGE THEIR DUTIES UNDER NEPA AND CEQA

Responsible agencies rely upon lead agencies' environmental documents when determining whether to issue a later approval for a project. For this reason, the FEIR/FEIS must include sufficient information and analysis for other agencies, like the SWRCB, to discharge their duties. *E.g., Habitat and Watershed Caretakers,* 213 Cal.App.4th at 1298 ("the EIR was

required to provide both [the lead agency] and [the responsible agency] with information about the environmental consequences of the decisions that they would be making with regard to the whole project"); *see also State of Idaho v. Interstate Commerce Commission,* 35 F.3d 585, 595-596 (D.C.Cir. 1994) (agencies cannot avoid environmental review by conditioning approval on compliance with environmental mandates of state and federal agencies because such an "attempt to rely entirely on the environmental judgments of other agencies" is "in fundamental conflict with the basic purpose of NEPA").

Here, the FEIR/FEIS fails to do so. As EPA noted in its comment letter dated October 30, 2015 (RECIRC-2577 at 3-4), two of the SWRCB's future planning processes will have substantial effects on the shape of the WaterFix: an update to water quality standards, and a petition by DWR and Reclamation to add points of diversion for the WaterFix, both of which could lead to higher flow requirements and have environmental consequences "that have not been analyzed in the" EIR/EIS. Comment letter RECIRC-2577 at 4. But as Conservation Groups and others have pointed out repeatedly, the FEIR/FEIS completely fails to study any alternatives that would substantially increase in-stream flows, and it does so on the basis that only other agencies have the authority to mandate such actions. *See, e.g.,* FEIR/FEIS at 1-44 to 1-45 (alternatives that would significantly increase instream flows were excluded because DWR and Reclamation lack the legal authority to make such changes); *see also* FEIR/FEIS at Response to Comment RECIRC2577-1 ("It would . . . be speculative to estimate that [increased] flows might be imposed as part of . . . the SWRCB's Bay Delta [Water Quality Control Plan] update"). Similarly, the FEIR/FEIS postpones resolution of all issues connected to the need for a Clean Water Act section 404 permit. Comment letter RECIRC-2577 at 2. Because the FEIR/FEIS contains no analysis of how these future regulatory processes will affect the environmental impacts of the WaterFix, "any attempt to describe the environmental impacts of the project is necessarily incomplete." *Id.* at 4.

The failure of the FEIR/FEIS to provide information sufficient for all responsible and cooperating agencies to discharge their duties violates both NEPA and CEQA. *Habitat and Watershed Caretakers*, 213 Cal.App.4th at 1298; *State of Idaho,* 35 F.3d at 595-596; 40 C.F.R. § 1501.6 (cooperating agencies).

IV. THE ANALYSIS OF GLOBAL CLIMATE CHANGE IS INADEQUATE

A. The FEIR/FEIS Uses Outdated Sea Level Rise Assumptions

The modeling used to determine the environmental impacts of the WaterFix assumed sea level rise of six inches by approximately 2030 and eighteen inches by approximately 2065. FEIR/FEIS at 1-194. But as explained in detail by scientific expert Deirdre Des Jardins on pages

5-9 of her testimony attached hereto as Exhibit 1, and in the references to which she refers,[2] these assumptions are dangerously out-of-date and fail to account for ice sheet melting. Exhibit 1 at 5-9. The National Oceanic and Atmospheric Administration ("NOAA") estimates indicate that sea level rise of up to 79 inches may occur by 2100. *Id.* at 7.

NOAA guidance mandates that for major new infrastructure projects like the WaterFix, where there is little tolerance for risk, the highest levels of projected sea level rise must be used. And "NOAA's 2035 high estimate is 8.8 inches higher than the 6 inch (15 cm) assumption used for WaterFix . . . modeling. NOAA's high estimate of 34.56 inches by 2060 is almost double the 18 inches used for the project engineering design." Exhibit 1 at 8.

Moreover, because the most recent data indicates that sea level rise is accelerating, even NOAA's estimates may significantly understate actual sea level rise. The Delta Independent

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[2] As indicated in the list of references appended to the end of Exhibit 1 hereto, Conservation Groups request that the testimony of Ms. Des Jardins as well as the exhibits thereto be included as part of the public record in this matter. The list of references includes a hyperlink to a pdf version of each individual reference. Providing hyperlinks to individual documents is sufficient to constitute submission of those documents to the agency and render the documents part of the administrative record. *Consolidated Irrigation District v. Superior Court of Fresno County* (2012) 205 Cal.App.4th 697, 724-725 ("The third category contains five documents named in the comment letters of CID and the air pollution control district along with a citation to the specific Web page containing the document. We conclude that the information provided made these documents readily available to City personnel. To access the document, the person need only type the URL into a computer connected to the Internet. . . Thus, the burden placed on lead agency personnel is minimal when a commenter provides the URL to the specific Web page containing the document").

As also indicated in the list of references appended to the end of Exhibit 1 hereto, DWR and Reclamation already possess these documents by virtue of their status as parties to the WaterFix proceeding before the State Water Resources Control Board. Conservation Groups are happy to provide additional paper copies of these documents to DWR and the Bureau if doing so would be helpful rather than burdensome. Where an agency independently possesses a document and the commenter offers to provide a further copy upon request, that document is part of the administrative record. *Consolidated Irrigation District*, 205 Cal.App.4th at 724 ("We conclude that CID made these documents readily available for use by City personnel and, therefore, the documents are part of the record of proceedings under section 21167.6, subdivision (e)(7). City's personnel who reviewed CID's comment letter could have obtained the documents by going to City's files for other projects or, if they deemed that too inefficient, could have requested a hard copy from CID. The burden of these steps seems minimal and is counterbalanced by the benefit to City of not receiving the same documents again and again").

Science Board was correct to conclude that the WaterFix sea level rise assumptions are "dangerously unrealistic." Accurate assumptions about future sea level rise are essential to correctly understand the environmental impacts of the WaterFix, and the EIR/EIS's incorrect premise renders its analysis of the environmental impacts of climate change useless.[3] Worse, the freshwater intakes for WaterFix could be under saltwater during the project's projected life, defeating its claimed purpose.

The FEIR/FEIS' failure to account for ice sheet melting is particularly egregious. The issue is completely ignored in the Master Comment Response about sea level rise. FEIR/FEIS at 1-194. Rather than respond to criticisms about its inadequate assumptions, the FEIR/FEIS states that its analysis is sufficient because it used the "best available science at the time of the analysis." *Id.* But that is not true. As shown, the best available science predicts seal level rise double or triple the modest increase that the FEIR/FEIS erroneously assumes.

DWR and Reclamation also violate their obligation to consider, disclose, and respond to opposing scientific views. *See, e.g., Center for Biological Diversity v. U.S. Forest Service*, 349 F.3d 1157, 1167 (9th Cir. 2003) ("Because the commenters' evidence and opinions directly challenge the scientific basis upon which the Final EIS rests and which is central to it, we hold that [the Forest Service was] required to disclose and respond to such viewpoints in the final impact statement itself"). The FEIR/FEIS' apparent belief that its outdated scientific conclusions are immune from criticism and frozen at the moment the first DEIR is prepared clearly contravenes this settled rule.

B. The FEIR/FEIS Fails to Account for the Future Effects of Climate Change

Climate change is likely to reduce flows in the Delta, increase water temperatures, reduce dissolved oxygen, increase salinity, and reduce the populations of fish species. Overall, climate change will add numerous stressors to already compromised Delta fish and wildlife. But the FEIR/FEIS does not adequately analyze whether and how global climate change will exacerbate the environmental impacts of the WaterFix. That violates NEPA,[4] as recent guidance from the Council on Environmental Quality ("CEQ") makes clear. On August 1, 2016, the CEQ issued its official guidance governing agencies' analysis of greenhouse gases, titled "Guidance on

[3] The FEIR/FEIS also fails to comport with the requirements of the Delta Reform Act, Water Code section 85320(b)(2)(C), because it fails to "comprehensive[ly] review and analy[ze]" a "sea level rise of 55 inches." *Id.*

[4] CEQA also requires agencies to disclose how a project's environmental impacts will be exacerbated by the consequences of climate change. *E.g., California Building Industry Ass'n v. BAAQMD* (2015) 62 Cal.4th 369, 389 (EIR must analyze a project's "potentially significant exacerbating effects").

Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews," which is attached hereto as Exhibit 2. The CEQ's Guidance emphasizes that agencies have an obligation to disclose how the environmental impacts of their actions will be exacerbated by climate change:

> For example, a proposed action may require water from a stream that has diminishing quantities of available water because of decreased snow pack in the mountains, or add heat to a water body that is already warming due to increasing atmospheric temperatures. Such considerations are squarely within the scope of NEPA and can inform decisions on whether to proceed with, and how to design, the proposed action to eliminate or mitigate impacts exacerbated by climate change.

Exhibit 2 at 21. This guidance applies perfectly, yet Reclamation and DWR claimed they could ignore this issue on the irrelevant ground that climate change would occur regardless of whether the WaterFix project is approved. *E.g.,* FEIR/FEIS at 1-195 (Master Comment Response 19 states that the EIR/EIS is adequate because "sea level rise and climate change conditions are considered the same under both" the proposed action and no-action alternatives); FEIR Response to Comment RECIRC2836-17 ("The anticipated hydrologic changes due to climate change . . . will constrain and challenge future water management practices across the state, with or without the proposed project"). This assumption fails to address whether aspects of the proposed project would be *worse* than the no action alternative due to alterations in water availability and flows. Further, it is impossible for decisionmakers and the public to review the EIR/EIS and ascertain the extent to which the WaterFix's environmental impacts will be *exacerbated* by climate change, because as discussed the EIR/EIS is entirely lacking in substantive detail.

V. THE FEIR/FEIS' ANALYSIS OF IMPACTS TO THE TRINITY RIVER IS INADEQUATE

The FEIR/FEIS' claim that the proposed action will not affect the Trinity River or other upstream operations such as Shasta Reservoir is disingenuous at best, and defies logic. Part of the project's purpose and need is to meet full CVP contractual commitments, and upstream operations will necessarily be affected by that goal through depleted reservoir storage and an increase in dead pool frequency, even without considering the effects of climate change.

As stated in comments by the Environmental Water Caucus comment DEIRS778-64, "total consumptive water rights claims for the Sacramento and Trinity River basins exceed annual average unimpaired flows by a factor of 5.6 acre-feet of claims per acre-foot of flow. Indeed, Table 32-2 in Master Response 32 (FEIR/FEIS at 1-284) shows that the Trinity River water permits issued to Reclamation allow storage and diversion of *many times more water than is available annually in the Trinity River*, even in the wettest of years.

The risk of dropping water levels to dead pool in Trinity Reservoir with resultant catastrophic fish mortality from lack of cold water resources is thus well documented, even without climate change. Existing minimum instream flows in Reclamation's Trinity River water permits require the release of 120,500 AF, while the weighted average annual release to the Trinity River under the 2000 Trinity River Record of Decision is nearly five times greater – 594,500 AF. This large amount of "paper water" demand from CVP water contracts for the Trinity River could lead to Trinity Reservoir dead pool – even without climate change – particularly since the SWRCB has consistently favored carryover storage in Folsom and Shasta Reservoirs over cold water storage in Trinity Reservoir. *See* SWRCB Water Right Order WR 2015-0043 (requiring 2016 minimum carryover storage in Folsom and Shasta *but not Trinity*). Indeed, Trinity Reservoir was drawn down very close to dead pool in 1977 (228,000 AF). Had 2016 been drier, it is likely that Trinity Reservoir would have been drawn down to dead pool last year, since storage was at its second lowest on December 8, 2015 (470,176 AF), and WR Order 2015-0043 maintains storage only in Shasta and Folsom, and not Trinity. Since the WaterFix will increase water demand on the Trinity River, this project's impacts clearly pose a far greater risk of drawing Trinity Reservoir down to dead pool.

In order to mitigate these impacts, after an adequate FEIR/FEIS is prepared the following mitigation measure should be considered for adoption:

The following terms and conditions will be incorporated into Reclamation's eight Trinity River water permits, as directed in SWRCB Water Quality Order 89-18:

1. *Conformance with the instream fishery flows contained in the Trinity River Record of Decision.*

2. *Provision for release of Humboldt County's 50,000 AF in addition to fishery flows per the 1955 Trinity River Act.*

3. *Inclusion of permit terms and conditions to require Reclamation to comply with the Trinity River temperature objectives contained in the Water Quality Control Plan for the North Coast Region (NCRWQCB) for all relevant time periods and for all uses of Trinity water diverted to the Sacramento River.*

4. *A requirement for a minimum of cold water storage in Trinity Reservoir adequate to preserve and propagate all runs of salmon and steelhead in the Trinity River below Lewiston Dam during a multi-year drought.*

5. *Require Reclamation to solve the temperature issue in Lewiston Reservoir through a feasibility study and environmental document to follow up on the 2012 preliminary technical memorandum by Reclamation.*

As discussed throughout this comment, the FEIR/FEIS requires substantial revision and recirculation. The FEIR/FEIS' conclusion that the Trinity River will not be affected by the WaterFix is unsupported and unsupportable on the existing record. Consideration and adoption of the foregoing mitigation measure would go a long way toward providing long overdue protection for this vital river system and its fisheries.

VI. THE FEIR/FEIS MUST BE RECIRCULATED

NEPA and CEQA both require recirculation where an EIS or EIR is so inadequate and conclusory in nature that meaningful public review was precluded. CEQA Guidelines § 15088.5(a)(3) (recirculation is required where the DEIR "was so so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded"); 40 C.F.R. § 1502.9(a) ("If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion").

These regulations require recirculation here because, as the EPA has repeatedly made clear, the RDEIR/SDEIS was vague and conclusory and did not provide sufficient "information . . . for a complete evaluation of environmental impacts." EPA FEIS comments dated January 18, 2017, at 1; *see generally* EPA RDEIR/SDEIS comments dated October 30, 2015. Because the FEIS "do[es] not reflect the real world operational scenarios likely to" occur, "the amount of water that will actually be available for diversion . . . may differ significantly from what was assumed." *Id.* at 2. The comments of Conservation Groups, other concerned citizens, and expert agencies like EPA have demonstrated in detail the many ways that the EIR/EIS's vapid analysis prevented informed public review. The EIR/EIS must be recirculated.

In addition, the EIR/EIS must be recirculated because the circumstances surrounding the WaterFix have significantly changed since the issuance of the RDEIR/SDEIS in a manner that may affect its impacts. CEQA Guidelines § 15088.5(a); 40 C.F.R. § 1502.9(c)(1). Numerous highly pertinent legal and administrative developments have occurred since that date, including (1) EPA's October 2015 and January 2017 comments indicating that the environmental impacts of the WaterFix are dramatically understated in the EIR/EIS; (2) Reclamation's August 2, 2016, determination in its most recent Biological Assessment that approval of the WaterFix is *likely* to adversely affect a variety of endangered and threatened species and their habitat; (3) the State Water Resources Control Board's October 2016 conclusion on page 1-4 of its Working Draft Scientific Basis Report for New and Revised Flow Requirements on the Sacramento River and Tributaries, Eastside Tributaries to the Delta, Delta Outflows, and Interior Delta Operations that existing flow "requirements are insufficient to protect fish and wildlife"; (4) the Sacramento Superior Court's June 24, 2016 ruling invalidating the Delta Plan because it did not comply with

the environmental restoration goals of the Delta Reform Act[5]; and (5) the Ninth Circuit's July 25, 2016 ruling invalidating Reclamation's approval of numerous interim contracts for the delivery of Central Valley Project water in *Pacific Coast Federation of Fishermen's Associations v. United States Department of the Interior*, 655 Fed. Appx. 595, 598 (9th Cir. 2016), because Reclamation had failed to consider the alternative of *reducing* water deliveries and improperly compared the project to itself.

These significant developments make clear that the EIR/EIS dramatically understates the environmental impacts of the WaterFix and does not consider a reasonable range of alternatives as required by CEQA and NEPA, so recirculation of the EIR/EIS is required. CEQA Guidelines § 15088.5(a); 40 C.F.R. § 1502.9(c)(1).

VII. THE FEIR/FEIS' RESPONSE TO COMMENTS IS INADEQUATE

CEQA and NEPA both mandate that agencies consider and respond fully to all public comments. *State of California v. Block*, 690 F.2d 753, 773 (9th Cir. 1982) ("there must be good faith, reasoned analysis in response" to public comment); *Santa Clarita Organization for Planning the Environment v. County of Los Angeles*, 106 Cal.App.4th 715, 723 ("It is not enough for the EIR simply to contain information submitted by the public and experts. Problems raised by the public and responsible experts require a good faith reasoned analysis in response").

Here, the FEIR/FEIS fails to provide "good faith, reasoned analysis" in response to public comment, and thus violates NEPA and CEQA. For example, in response to comment DEIRS795-24, in which the commenter asked for the adoption of a mitigation measure preventing Reclamation from augmenting CVP supplies with 50,000 acre-feet of water that is supposed to flow through the Trinity River to Humboldt County, the FEIR/FEIS merely states that past deliveries to Humboldt County "have only been conducted on an annual and interim basis," which is not a reason that they could not be guaranteed in the future.[6] FEIR/FEIS at Response to Comment 795-24. The modeling related to CVP reservoir storage, water availability, and contract deliveries is inaccurate and misleading because it fails to include modeling of Humboldt County's 50,000 AF water contract, and the FEIR/FEIS is inadequate

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[5] The FEIR/FEIS repeatedly discusses this ruling. *E.g.,* FEIR/FEIS at 1-274 ("On June 24, 2016, Sacramento Superior 22 Court Judge Michael P. Kenny ruled the Delta Plan invalid (Delta Stewardship Council Cases, JCCP 23 4758)"), FEIR/FEIS at 3J-1 n. 1 (same). The ruling is therefore already part of the administrative record.

[6] The FEIR/FEIS also states that environmental review for these releases "has not been fully defined," but this excuse is doubly insufficient. There is no reason that such review could not have been conducted in connection with preparation of the FEIR/FEIS, and moreover, the referenced environmental review was purportedly completed this month by Reclamation.

because it fails to provide good faith, reasoned analysis in response to public concerns about that exclusion.

Similarly, the FEIR/FEIS fails to provide good faith, reasoned analysis in response to public comments about the unduly narrow scope of alternatives. Conservation Groups repeatedly pointed out that the EIR/EIS unlawfully failed to consider an alternative that would significantly reduce exports from the Delta, and specifically suggested adoption of the Environmental Water Caucus' "Responsible Exports Plan." Comment DEIRS1735-8. But in response, the FEIR/FEIS simply refers the reader to Master Response 4 (*id.*), which contains no specific discussion of the Environmental Water Caucus' suggested alternative. *See generally* FEIR/FEIS at 1-42 through 1-46.

These inadequate responses are emblematic of DWR and Reclamation's serial disregard of their obligation to give serious and meaningful consideration to public comments. By failing to provide "good faith, reasoned analysis in response" to public comment, DWR and Reclamation violated CEQA and NEPA. *Block*, 690 F.2d at 773; *Santa Clarita Organization for Planning the Environment,* 106 Cal.App.4th at 723.

VIII. THE WATERFIX CANNOT BE APPROVED UNTIL A DELTA PLAN IS PREPARED

As noted above, and as reflected in Exhibit 3, the Delta Plan was invalidated last year by the Sacramento Superior Court. The Court concluded that the Delta Plan failed to comply with the provisions of the Delta Reform Act, Water Code section 85000 *et seq.* Specifically, the Delta Plan was inadequate because it did not contain the requisite measurable targets necessary to achieve statutory objectives, including reduced reliance on the Delta, reduced environmental harm from invasive species, more natural flows, and increased water supply reliability. Exhibit 3 at 26. Moreover, the Delta Plan also failed to promote options for water conveyance and storage systems. Exhibit 3 at 72.

The Delta Reform Act requires that agencies make findings that all projects implemented within the Delta, including the WaterFix, are consistent with the Delta Plan. Water Code § 85225. While the *BDCP* was required to be *incorporated* into the Delta Plan *if* certain conditions were met, the *WaterFix* cannot be so incorporated unless it is consistent with the Delta Plan. Water Code § 85320 (*if* the BDCP is an NCCP and HCP – which the WaterFix is *not* – and certain other conditions are met, "the [Delta Stewardship] Council shall incorporate the BDCP into the Delta Plan"). For this reason, the FEIR/FEIS states that DWR "will fully comply with the Delta Reform Act" and will "file a certification of consistency for the proposed project . . . at the appropriate time." FEIR/FEIS at 1-277.

But filing a certification of consistency at some later date after project approval is not enough. Since the current Delta Plan is invalid and the form of the future Delta Plan is unknown,

DWR cannot know whether the WaterFix is consistent with the Delta Plan. Because approval of the WaterFix would reduce flows in the Delta, it is likely to be *inconsistent* with numerous components of any adequate Delta Plan. For example, reducing the Delta's flows will conflict with the Delta Plan's required – but as yet, unadopted – quantified targets to *restore* – rather than further diminish and degrade – its natural flows. The only way for DWR to ensure that the WaterFix is consistent with the Delta Plan is for DWR to *wait* until the Delta Plan is revised and made lawful before determining how the WaterFix will be operated to conform its Delta flows to the Delta Plan.

Under CEQA, a lead agency must ensure that the requirements for subsidiary approvals are met *before* approving the project, in order to allow members of the public to fully consider the environmental consequences of an action and thereby avoid wasting everyone's time by approving projects that cannot obtain necessary permits. *E.g., Habitat and Watershed Caretakers*, 213 Cal.App.4th at 1298 ("the EIR was required to provide both City decision makers *and LAFCO decision makers*," whose later approval would be necessary for project implementation "with information about the environmental consequences of the decisions that they would be making with regard to the whole project"). Accordingly, DWR may not approve the WaterFix until it ensures that the WaterFix is consistent with a lawful Delta Plan.

IX. CONCLUSION

For each of these reasons, the FEIR/FEIS is inadequate and must be rejected as such.

No lawful decisions regarding management of the Delta can be based on this deficient and illegal document.

Respectfully submitted,

Stephan C. Volker
Attorney for the North Coast Rivers Alliance,
San Francisco Crab Boat Owners Association, Inc.,
Pacific Coast Federation of Fishermen's Associations,
and the Institute for Fisheries Resources

List of Exhibits:

Exhibit 1: Deirdre Des Jardins, *Corrected Testimony of Deirdre Des Jardins Before the State Water Resources Control Board* (September 2, 2016) (including references in attached list noted above in footnote 2)

Exhibit 2: Council on Environmental Quality, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (August 1, 2016)

EXHIBIT 1

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BEFORE THE

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

HEARING REGARDING PETITION FILED BY THE DEPARTMENT OF WATER RESOURCES AND U.S. BUREAU OF RECLAMATION REQUESTING CHANGES IN WATER RIGHTS FOR THE CALIFORNIA WaterFix PROJECT	**CORRECTED TESTIMONY OF DEIRDRE DES JARDINS**

I, Deirdre Des Jardins, do hereby declare:

I. INTRODUCTION

My name is Deirdre Des Jardins. I am the principal of California Water Research. I have performed independent research and analysis relating to California's developed water supply since 2010, including analyses for a wide range of environmental and fishing groups in California. I have a deep background in computational modeling, physics, and applied mathematics, which allows me to read and synthesize information from a wide range of scientific literature, agency reports, and technical and environmental documents. I also analyze complex physical and operational systems and associated modeling, and produce analyses of hydrologic and other data as needed. My background in theoretical physics allows new insights into the complexities of California's state and federal water projects.

As a principal at California Water Research, I have also done research on the three major drivers of change to California's developed water supply and uses: climate change, soil and groundwater salinization, and population growth and associated growth in urban water use. My comments to the Delta Stewardship Council ("DSC"), the Department of Water Resources ("DWR"), and the State Water Resources Control Board ("Board") have regularly raised concerns about the risk of increased frequency and severity of droughts due to climate change prior to 2014.

My scientific background involved the development and application of a wide range of different computational models of physical and biological systems, as well as work with some of the leading research groups in the world in their fields. I did research and modeling at the Center for Nonlinear Studies at Los Alamos National Laboratory as well as the Advanced Computing Laboratory at the National Aeronautics and Space Administration's ("NASA's") Ames Research Center. The Center for Nonlinear Studies was preeminent in the world for research in nonlinear dynamics and Chaos theory at the time I did research there. I later did research with the Computational Mechanics Research Group at the Santa Fe Institute, which was the preeminent research center in the world in Complex Systems Theory. I also worked with the Bioinformatics Research Group at the University of California, Santa Cruz, which was renowned for assembling the Human Genome sequence.

I received a bachelor's degree in applied mathematics from the University of California, Santa Cruz in 1992. I was a fellow with the National Physical Science Consortium for six years, and worked toward a doctorate in Computer Science at the University of California, Santa Cruz, with studies in Machine Learning, Bioinformatics, and Complex Systems Theory. My statement of qualifications is attached as Exhibit PCFFA-75.[1]

[1] Exhibit PCFFA-75 is a true and correct copy of the document.

II. OVERVIEW OF TESTIMONY

My testimony is submitted to describe and evaluate the climate change assumptions and climate change model projections used by the Department of Water Resources ("DWR") and the United States Department of Reclamation ("Reclamation") in projecting future conditions and shifts in hydrology for the Early Long Term ("ELT") period. PCFFA-77 (presentation by Deirdre Des Jardins).[2]

III. CLIMATE CHANGE

The climate change analysis conducted for the Bay Delta Conservation Plan ("BDCP") / WaterFix has major flaws, which I believe must be remedied. In a 2014 review of the BDCP Draft Environmental Impact Report/Draft Environmental Impact Statement ("DEIR/DEIS"), the Delta Independent Science Board ("ISB") stated,

> *The potential effects of climate change and sea-level rise are underestimated.* . . . The potential direct effects of climate change and sea-level rise on the effectiveness of actions, including operations involving new water conveyance facilities, are not adequately considered. . . .
>
> In their response to our preliminary draft review, the Department of Water Resources noted that "the scope of an EIR/EIS is to consider the effects of the project on the environment, and not the environment on the project". If the effects of major environmental disruptions such as climate change, sea-level rise, levee breaches, floods, and the like are not considered, however, one must assume that the actions will have the stated outcomes. We believe this is dangerously unrealistic. CEQA requires impacts to be assessed "in order to provide decision makers enough information to make a reasoned choice about the project and its alternatives".

PCFFA-9, p. 6, emphasis in original, footnotes omitted.[3] I strongly concur with the assessment of the ISB. Some of the assumptions and analysis of climate change in the WaterFix are also dangerously out of date. *See, e.g.*, PCFFA-14 (presentation by DWR climatologist Michael Anderson).[4]

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[2] Exhibit PCFFA-77 is a true and correct copy of a presentation compiled by Deirdre Des Jardins, based on other cited references, in support of her testimony.
[3] Exhibit PCFFA-9 is a true and correct copy of the document.
[4] Exhibit PCFFA-14 is a true and correct copy of the document.

There have been significant advances in the scientific understanding of climate change since the initial modelling for the BDCP / WaterFix conveyance projects that took place from 2009-2012. PCFFA-78.[5] These advances have been driven by data collected during recent, dramatic phenomena, including the accelerated melting of ice sheets in the west Antarctic and Greenland and severe, prolonged droughts in the Southwestern United States, Midwestern United States, and California. Recent temperature deviations also make the lower sensitivity Global Climate Models, which predict less than 3 degrees of warming with a doubling of C02, appear increasingly unlikely. Exhibit PCFFA-76.[6]

Recent observations and research point towards a much hotter and potentially drier future, with the potential for much greater increases in sea level rise than were previously predicted. The most recent scientific literature and climate change modeling points toward major risks to water supply and water quality, which the model results presented by DWR and Reclamation for the WaterFix hearing do not address.

My recommendation is that the Board require that DWR and Reclamation submit modeled operations using the Q2 drier, warmer scenario for consideration in the WaterFix hearing. The Q2 scenario is the scenario with the greatest risk. Model results for the Q2 scenario were provided for the Revised Draft Biological Assessment (SWRCB-104 (Appendix 5A)), but the Revised Draft Biological Assessment was not available until after DWR had submitted exhibits for Part 1A, does not have the same operational assumptions as the CALSIM runs done for the WaterFix hearing, and does not consider model outputs related to legal users of water.

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[5] Exhibit PCFFA-78 is a true and correct copy of graphs from cited documents compiled by Deirdre Des Jardins in support of her testimony.

[6] Exhibit PCFFA-76 is a true and correct copy of the document S.C. Sherwood, S. Bony, and J. Dufresne, *Spread in model climate sensitivity traced to atmospheric convective mixing*, 505 Nature pp. 37-42 (2014), *available at* http://dx.doi.org/10.1038/nature12829.

As explained below, the sea level rise estimates used in the WaterFix modeling are out of date and no longer reflect the best available science. To take into account the current highest estimate of 14.8 inches of sea level rise at Port Chicago by 2035 (see page 8 of this testimony), I recommend that the Board require DWR and Reclamation to submit model results from the 18 inch scenario for sea level rise for consideration in the WaterFix Hearing, as well as the 6 inch scenario. The 18 inch scenario was used for the 2013 BDCP DEIR/DEIS, but the 2013 project is significantly different from the current WaterFix project. Not only have some of the regulatory assumptions changed, but there is no longer an extensive, funded restoration in the Delta, which changes the modeling of salinity in the Delta.

IV. SEA LEVEL RISE

DWR should not continue to use the assumption that there will be six inches of sea level rise by 2025-2030 (Early Long Term) and 18 inches by 2060-2065 (Late Long Term) for the WaterFix project when the best available science shows that these may be at best 50% exceedance estimates. DWR's Conceptual Engineering Report (DWR-212, p. 50) shows that these sea level rise estimates originate from 2007 recommendations by the Delta Independent Science Board ("ISB") that the Bay Delta Conservation Plan ("BDCP") use a median estimate of one meter of sea level rise by 2100, and use empirical estimates by the method of Rahmstorf. However, the ISB cautioned in their 2007 guidance that ice sheet melting could result in as much as 2 meters of sea level rise by 2100. PCFFA-8 (document p. 5, cautions of an additional meter of sea level rise from ice sheet melting).[7]

[7] Exhibit PCFFA-8 is a true and correct copy of the document.

BDCP planning documents show that DWR also did their own analysis, which reduced the values suggested by the ISB. The following is taken from an ICF International memo in Appendix 2C of the March 13, 2013 Administrative draft. PCFFA-62, p. 18.[8] The memo states:

> For water planning purpose, the California Department of Water Resources used the method of Rahmstorf (2007) and 12 climate projections selected by the California Climate Action Team (Chung et. al. 2009). The historical 95% confidence interval was extrapolated to estimate the uncertainties in the future projections (Figure 2.C-8). Mid-century sea level rise projections ranged from 0.8 to 1.0 foot, with an uncertainty range spanning 0.5 to 1.2 feet. End-of-century projections ranged from 1.8 to 3.1 feet, with an uncertainty range of 1.0 to 3.9 feet. These estimates are slightly lower than those of Rahmstorf (2007) because DWR used a more limited ensemble of climate projections that did not include the highest projections of temperature increases.

DWR's 2009 planning estimates of 1.8 to 3.1 feet by the end of the century were significantly less than the ISB's estimates. The sea level rise estimates used for BDCP and WaterFix planning appear to have been based on DWR's 2009 estimates. At the time the 2013 BDCP DEIR/DEIS was written, the best available science showed higher sea level rise. The "[b]est available information suggests a range of potential SLR from 17 to 66 inches (42 to 167 centimeters) by 2100 (National Research Council 2012). SWRCB-4 (BDCP DEIR/DEIS, Chapter 29, p. 13:24-25). Nonetheless, DWR and Reclamation rejected any update of their outdated sea level rise assumptions. According to the BDCP DEIR/DEIS, "[t]he projections from the NRC study were not used directly in the BDCP analysis for two reasons. 1) the study was published in June 2012, well after the modeling analysis for BDCP had been designed and performed, and 2) the projection years are not directly aligned with the 2025 and 2060 analysis periods used for BDCP." SWRCB-4 (Chapter 29, p. 13:27-29). Recent observations have shown not only that the National Research Council's maximum estimate of 1.67 meters (5.5 feet) may be reached by the end of the century, but also that the ISB's original maximum estimate of two

[8] Exhibit PCFFA-62 is a true and correct copy of the document.

meters (6.6 feet) may be reached. This is more than double DWR's 2009 upper estimate of 3.1 feet.

These higher estimates of sea level rise are driven by new scientific understanding of the effects of climate change on the polar ice sheets. Recent satellite observations show that the rate of melting in the ice sheets in West Antarctica and Greenland is increasing dramatically. In December 2014, the American Geophysical Union accepted a paper by Tyler Sutterly and colleagues at University of California, Irvine and NASA's Jet Propulsion Laboratory which examined satellite data estimating the annual mass loss in the Amundsen Sea Embayment. Sutterly's study showed that the acceleration of mass loss (net melting) had tripled in the last decade. PCFFA-63, p. 8421.[9] Sutterley's analysis was comprehensive and authoritative as it evaluated and reconciled data using four different measurement techniques over 21 years. Similar accelerations are being seen in Greenland.

For the National Climate Assessment in 2012, the Climate Change Program Office of the National Oceanic and Atmospheric Association ("NOAA") used empirical estimates of the rate of acceleration of ice sheet melting to derive potential values of sea level rise as high as 2 meters (6.6 feet or 79 inches) by 2100. PCFFA-10, p. 2.[10] NOAA recommended that the highest levels of sea level rise be used where there is little tolerance for risk, such as in a major new infrastructure project like the WaterFix. PCFFA-10, p. 2.

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[9] Exhibit PCFFA-63 is a true and correct copy of the document Sutterley, T. C., I. Velicogna, E. Rignot, J. Mouginot, T. Flament, M. R. van den Broeke, J. M. van Wessem, and C. H. Reijmer, *Mass loss of the Amundsen Sea Embayment of West Antarctica from four independent techniques*, 41 Geophys. Res. Lett. 8421–8428, doi:10.1002/2014GL061940, *available at* http://dx.doi.org/10.1002/2014GL061940 (last accessed Oct. 29, 2015).

[10] Exhibit PCFFA-10 is a true and correct copy of the document *NOAA Climate Program Office, Global Sea Level Rise Scenarios for the United States National Climate Assessment* (December 2012), *available at* http://cpo.noaa.gov/sites/cpo/Reports/2012/NOAA_SLR_r3.pdf (last accessed Oct. 29, 2015).

Regional sea level rise estimates for 2025-2035 show that the WaterFix's engineering design estimate of 18 inches of sea level rise is much lower than NOAA's recommended values for new infrastructure. The United States Army Corps of Engineers ("ACOE") has an online calculator for sea level rise which gives low, medium, and high estimates under projections by both ACOE and NOAA for various gauges on the east and west coasts of the United States.[11] Port Chicago is the closest gauge in the calculator to the Sacramento Delta. The regionally corrected estimates for Port Chicago show that NOAA's high estimate of sea level rise is 11.8 inches by 2030 and 34.56 inches by 2060. PCFFA-64 (Port Chicago regionally corrected sea level rise table);[12] PCFFA-65 (Port Chicago regionally corrected sea level rise projections graph);[13] PCFFA-66 (Port Chicago sea level gauge data).[14] Under the more likely scenario of project completion by 2035, NOAA's high estimate of sea level rise is 14.8 inches, and 39.4 inches by 2065. PCFFA-64. NOAA's 2035 high estimate is 8.8 inches higher than the 6 inch (15 cm) assumption used for WaterFix Hearing modeling. NOAA's high estimate of 34.56 inches by 2060 is almost double the 18 inches used for the project engineering design. DWR-212, p. 51. For this reason, I concur with the ISB's opinion that these assumptions are "dangerously unrealistic."

NOAA's empirical high estimate of two meters of sea level rise by 2100 is consistent not only with recent observations, but also with a recent study by James Hansen and 16 colleagues, published in 2015. PCFFA-67.[15] James Hansen and the other authors looked at melting in the

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[11] ACOE's sea level rise calculator is available at http://www.corpsclimate.us/ccaceslcurves.cfm.
[12] Exhibit PCFFA-64 is a true and correct copy of a document prepared by me using ACOE's sea level rise calculator.
[13] Exhibit PCFFA-65 is a true and correct copy of a document prepared by me using ACOE's sea level rise calculator.
[14] Exhibit PCFFA-66 is a true and correct copy of a document prepared by me using ACOE's sea level rise calculator.
[15] Exhibit PCFFA-67 is a true and correct copy of the document J. Hansen, M. Sato, P. Hearty, R. Ruedy, M. Kelley, V. Masson-Delmotte, G. Russell, G. Tselioudis, J. Cao, E. Rignot, I.

last interglacial period warmer than the current period, when temperatures were less than one degree centigrade greater than the current period, and sea levels rose an estimated 3-5 meters. They used inferences from this period to construct models of nonlinear disintegration of the polar ice sheets in the Antarctic and Greenland. The models imply that the rate of ice sheet melting could double every 10, 20, or 40 years, with a corresponding rise in sea level of several meters within 50, 100, or 200 years. The authors conclude that recent ice sheet melt rates have a doubling time near the lower end of the range, meaning that we could see sea level rise of several meters within 50-100 years. PCFFA-67.

In conclusion, satellite observations are showing a dramatically accelerated rate of ice sheet melting, and new studies on nonlinear disintegration of polar ice sheets shows that the rate of ice sheet melting could continue to accelerate. It is essential to take this into account in the WaterFix analysis as sea level rise has major effects on both Delta outflow requirements and water quality. Correct sea level rise assumptions must also be taken into account because they are essential for evaluating forecast project operations and the conceptual project design.

V. SHIFTS IN HYDROLOGY

In order for BDCP and WaterFix modelers to simulate shifts in hydrology due to climate change, it was necessary to select a set of global climate models to project changes in temperature and precipitation. The BDCP lead agencies selected an ensemble method of climate change modeling, using all 112 models in the Coupled Model Intercomparison Project Third Assessment Report ("CMIP3") database. According to Appendix 5A, Section D: Additional Modeling Information, "[a] total of 112 future climate projections used in the IPCC AR4, subsequently bias-

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Velicogna, E. Kandiano, K. von Schuckmann, P. Kharecha, A. N. Legrande, M. Bauer, and K.-W. Lo, *Ice melt, sea level rise and superstorms: evidence from paleoclimate data, climate modeling, and modern observations that 2 °C global warming is highly dangerous,* 16 Atmos. Chem. Phys. Discuss. 3761-3812 (2016), *available at* http://www.atmos-chem-phys.net/16/3761/2016/acp-16-3761-2016.pdf.

corrected and statistically downscaled (BCSD), were obtained from Lawrence Livermore National Laboratory (LLNL) under the World Climate Research Program's (WCRP) Coupled Model Intercomparison Project Phase 3 (CMIP3)." SWRCB-4, Cha. 5, Appendix 5A, § D, 5A-D33. Appendix 5A § D also states that "[r]ecent studies at both global and regional scales have demonstrated the superiority of the multi-model ensemble over the use of a single climate model for characterizing mean climate and climate variability (Pierce et al 2009, Gleckler et al 2008)." SWRCB-4, Cha. 5, Appendix 5A, § D, 5A-D31. Finally, Appendix 5A references the following sources for its conclusions: "Gleckler, PJ, Taylor, KE, Doutriaux, C. 2008. Performance Metrics for Climate Models. Journal of 48 Geophysical Research. 10.1019/2007JD008972." SWRCB-4, Cha. 5, Appendix 5A, § D, 5A-D45.

However, a more recent study by the Intergovernmental Panel on Climate Change ("IPCC") included evaluations of how well the CMIP3 database of global climate models represented regional climates. PCFFA-68 (Gregory Flato et. al., Climate Change 2013 The Physical Science Basis, Chapter 9: Evaluation of Climate Models).[16] This more recent study showed that, while the CMIP3 ensemble does a reasonable job of reproducing historic precipitation over Eastern North America, Europe and the Mediterranean, and East Asia, there is a significant bias for Western North America. PCFFA-68 at p. 810-812. Box and whisker plots in the study show that for the 50th percentile, the ensemble is approximately 30-40% wetter than historical conditions for October through March, and approximately 25% wetter annually. PCFFA-68, p. 812; *see also* PCFFA-78 (Figures 9-11).

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[16] Exhibit PCFFA-68 is a true and correct copy of the document Flato, G., J. Marotzke, B. Abiodun, P. Braconnot, S.C. Chou, W. Collins, P. Cox, F. Driouech, S. Emori, V. Eyring, C. Forest, P. Gleckler, E. Guilyardi, C. Jakob, V. Kattsov, C. Reason and M. Rummukainen, Evaluation of Climate Models. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2013. Cambridge University Press, Cambridge, United Kingdom and New York, NY, US.

It is possible to estimate bias in global climate model projections by comparing the unforced outputs with the historic record. This is done by comparing outputs from the unforced models and the historical record. This was the approach used by the California Climate Action Team, supervised by Daniel Cayan at the Scripps Institute at the University of California, San Diego. The California Climate Action Team did the climate change modeling for the California Climate Change Assessments. PCFFA-69.[17] The Climate Action Team compared how well the global climate models in the CMIP3 database did in representing the California climate, and culled the set to models which performed reasonably well in matching the historic hydrology. The models were chosen "on the basis of providing a set of relevant monthly, and in some cases daily, data. Another rationale was that the models provided a reasonable representation, from their historical simulation, of the following elements: seasonal precipitation and temperature (Figure 1), the variability of annual precipitation, and El Niño/Southern Oscillation (ENSO)." PCFFA-69. Given California's unique climate, Cayan has advocated for this culling approach in future climate modeling by DWR. DWR's August 2015 Perspectives and Guidance for Climate Change Analysis states that, "[n]ot unlike mutual funds in economics, though past performance is no guarantee of future performance, the model's representation of historical climate provides a logical way to select models for regional application." PCFFA-70, p. 24.[18]

A study done by Sarah Null and Josh Viers at University of California, Davis in conjunction with the 2012 California Climate Change Assessments shows just how different the

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[17] Exhibit PCFFA-69 is a true and correct copy of the document Dan Cayan et al., "Climate Change Scenarios and Sea Level Rise Estimates for the California 2009 Climate Change Scenarios Assessment," a Paper from the California Climate Change Center, *available at* http://www.energy.ca.gov/2009publications/CEC-500-2009-014/CEC-500-2009-014-F.PDF.

[18] Exhibit PCFFA 70 is a true and correct copy of DWR, Perspectives and Guidance for Climate Change Analysis, p. 24 (Aug. 2015), *available at* http://www.water.ca.gov/climatechange/docs/2015/Perspectives_Guidance_Climate_Change_Analysis.pdf.

Climate Action Team's subset of six carefully selected global climate models is from the entire CMIP3 ensemble, which was used for the BDCP and WaterFix climate change projections. PCFFA-72.[19] Null and Vier's modeling also did not use downscaled global climate model outputs to perturb the historic hydrology, as was done for the BDCP's climate change modeling.

DWR has noted problems with using downscaled global climate models to perturb historic hydrology in a 2009 report, Using Future Climate Projections to Support Water Resources Decision Making in California. PCFFA-71.[20] In Section 4.4 of DWR's report, titled "Future Climate Variability" (p.36), the authors state that,

> In water resources planning, it is often assumed that future hydrologic variability will be similar to historical variability, which is an assumption of a statistically stationary hydrology. This assumption no longer holds true under climate change where the hydrological variability is non-stationary. Recent scientific research indicates that future hydrologic patterns are likely to be significantly different from historical patterns, which is also described as an assumption of a statistically non-stationary hydrology. In an article in *Science*, Milly et al. (2008) stated that "Stationarity is dead" and that "finding a suitable successor is crucial for human adaptation to changing climate."

PCFFA-71.

Null and Vier's use of Cayan's carefully selected set of global climate models allowed direct use of the model outputs, without bias correction and mapping onto the historic hydrology. Null and Viers performed ANOVA and t-tests using a 95 percent confidence level to compare the GCM outputs with observed 1951-2000 hydrology. The statistical tests showed the GCM outputs were not statistically different from the historic hydrology. The direct use of this subset of global

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[19] Exhibit PCFFA-72 is a true and correct copy of the document Sarah Null and Josh Viers, *Water and Energy Sector Vulnerability to Climate Warming in the Sierra Nevada: Water Year Classification in Non-Stationary Climates* (July 31, 2012), *available at* http://www.energy.ca.gov/2012publications/CEC-500-2012-015/CEC-500-2012-015.pdf,

[20] Exhibit PCFFA-71 is a true and correct copy of the document Francis Chung et. al., *Using Future Climate Projections to Support Water Resources Decision Making in California*, California Climate Center (May 2009), *available at* http://www.water.ca.gov/pubs/climate/using_future_climate_projections_to_support_water_resources_decision_making_in_california/usingfutureclimateprojtosuppwater_jun09_web.pdf.

climate models did show a marked shift in climate. Most of the models projected major increases in dry and critically dry years, and decreases in wet and below-normal years. All of the models projected a significant increase in dry and critically dry years by the latter half of the century, with a corresponding decrease in wet and above normal years. PCFFA-72.

The BDCP did originally propose a method for dealing with regional uncertainty. Appendix 5A-D of the BDCP DEIR/DEIS shows that CH2M Hill originally proposed to deal with uncertainty about regional climate scenarios by developing projections for subsets of the global climate model / climate scenario ensemble. SWRCB-4. The ensemble was divided into 4 quadrants with projections of more warming and less warming, and drier or wetter. A Central Tendency for the ensemble was also calculated. SWRCB-4 (Appendix 5A-D, p. 35-36).

Appendix 5A-D, p. 33 stated that "[t]he selected approach for development of climate scenarios for the BDCP incorporates three fundamental elements. First, it relies on sampling of the ensemble of GCM projections rather than one single realization or a handful of individual realizations. *Second, it includes scenarios that both represent the range of projections as well as the central tendency of the projections.*" SWRCB-4 (emphasis added). This would have been a reasonable approach to uncertainty about regional climate change scenarios if it was carried through to the final WaterFix modeling. It also would have provided information on possible climate shifts. Instead, only the single "Central Tendency" projection has been used for most BDCP and WaterFix modeling and model results, including the results presented for the hearing. The Central Tendency scenario provides no information about uncertainty in the BDCP / WaterFix projections of shifts in hydrology.

VI. CLIMATE SHIFTS

DWR's planning studies for its 2010 analysis of modeling of climate change noted that

> there is a lack of analysis of potential drought conditions that are more extreme than have been seen in our relatively short hydrologic record. There is significant evidence to

> suggest that California has historically been subject to very severe droughts and that climate change could result in droughts being more common, longer, or more severe. However, most current DWR approaches rely on an 82-year historical hydrologic record (1922–2003) on which GCM-generated future climate changed-hydrologic conditions are superposed. This record is likely too short to incorporate the possibility of a low frequency, but extreme, drought.

PCFFA-73.[21]

DWR did fund a study of tree ring cores by David Meko at the University of Arizona. PCFFA-74.[22] Meko's study estimated the Sacramento Four River Index from tree ring cores, back to 901 A.D. Graphs of Meko's reconstructed flows, along with the associated data set, are available at http://www.treeflow.info/content/sacramento-river-four-rivers-index-ca. The graphs show many extended periods of below average flows. PCFFA-78;[23] *see also* IFR-2.[24] In a presentation for the 2009 Extreme Precipitation Symposium, Meko stated that

> six-year droughts of the 1930s and 1980s-90s are as severe as any encountered in the tree-ring record. For longer running means the tree-ring record contains examples of drought severity and duration without analog since the start of the 20th century. For example, mean flow is reconstructed at 73 percent of normal (1906-2008 observed mean, 23.8x106 acre-feet) for the 25-year period ending in 1480.

IFR-1, p. 1.[25]

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[21] Exhibit PCFFA-73 is a true and correct copy of Abdul Khan and Andrew Schwarz, Climate Change Characterization and Analysis in California Water Resources Planning Studies, Final Report. DWR, p. xvi (Dec. 2010), *available at* http://www.water.ca.gov/climatechange/docs/DWR_CCCStudy_FinalReport_Dec23.pdf.

[22] Exhibit PCFFA-74 is a true and correct copy of David M. Meko, Matthew D. Therrell, Christopher H. Baisan, and Malcolm K Hughes, *Sacramento River Flow Reconstructed To Ad. 869 From Tree Rings*, Journal Of The American Water Resources Association, VOL. 37, NO.4, August 2001.

[23] Graphs and data from David Meko's reconstruction are presented in PCFFA-78, which is a true and correct copy of Meko's work as presented at http://www.treeflow.info/content/sacramento-river-four-rivers-index-ca.

[24] Exhibit IFR-2 is a true and correct copy of Cook et al., *Megadroughts in North America: placing IPCC projections of hydroclimatic change in a long-term palaeoclimate context*, Journal of Quaternary Science, DOI: 10.1002/jqs.1303 (2009).

[25] Exhibit IFR-1 is a true and correct copy of Meko, *Central Valley Droughts Over Last 1,000 Years*, 2009 California Extreme Precipitation Symposium (UC Davis, June 24, 2009).

Given this history, I believe it is essential to consider extended drought periods in evaluating the proposed increase in water diversions by the SWP and CVP. I recommend that the Board require DWR and Reclamation to produce detailed information on water supply and water quality under the proposed change for the droughts of 1987-1992 and 1928-1934, and would recommend this analysis for all changes that involve significant increases in diversions.

VII. MODELING

The model results submitted in support of the WaterFix petition all rely on a hydrologic / water operations model called CALSIM II. This model has never been externally validated, i.e., approved as reliable, for any use. The validation of the hydrodynamic model, DSM2, has also not been put into the record for use by the Board in the WaterFix hearing. DWR and Reclamation have implied that they validated the model for its proposed use in the WaterFix Hearing. *See, e.g.*, DWR-71, p. 8. But an examination of the 2003 peer review cited by DWR shows that DWR *never provided the information for a technical analysis to the panel,* information which was required to assess the accuracy of the model results. As stated in the report of the 2003 peer review of CALSIM II, *A Strategic Review of CALSIM II and its Use for Water Planning, Management, and Operations in Central California*:

> The information we received and the shortness of our meetings with modeling staff precluded a thorough technical analysis of CALSIM II. We believe such a technical review should be carried out. Only then will users of CALSIM II have some assurance as to the appropriateness of its assumptions and to the quality (accuracy) of its results. By necessity our review is more strategic. It offers some suggestions for establishing a more complete technical peer review, for managing the CALSIM II applications and for ensuring greater quality control over the model and its input data, and for increasing the quality of the model, the precision of its results, and their documentation.

PCFFA-20, p. 3.[26] The 2003 report also recommended that, "[t]o increase the public's confidence in the many components and features of CALSIM II, we suggest that these components of

[26] Exhibit PCFFA-20 is a true and correct copy of the document A. Close, W. M. Haneman, J. W. Labadie, D.P. Loucks, J. R. Lund, D. C. McKinney, and J. R. Stedinger, *A Strategic Review of*

CALSIM be subjected to careful technical peer review by appropriate experts and stakeholders. PCFFA-20, p. 2. DWR's response to the 2003 peer review did not allay these concerns, which were reiterated in a 2006 peer review. PCFFA-79,[27] PCFFA-80.[28]

Furthermore, CALSIM's reviewers expressed significant skepticism about the use of CALSIM in a comparative mode, the very mode upon which petitioners' testimony – that there will be no injury to legal users of water – is based.

> Modelers sometimes make a distinction between the use of a model for absolute versus comparative analyses. In an absolute analysis one runs the model once to predict an outcome. In a comparative analysis, one runs the model twice, once as a baseline and the other with some specific change, in order to assess change in outcome due to the given change in model input configuration. The suggestion is that, while the model might not generate a highly reliable absolute prediction because of errors in model specification and/or estimation, nevertheless it might produce a reasonably reliable estimate of the relative change in outcome. The panel is somewhat skeptical of this notion because it relies on the assumption that the model errors which render an absolute forecast unreliable are sufficiently independent of, or orthogonal to, the change being modeled that they do not similarly affect the forecast of change in outcome; they mostly cancel out. This feature of the model is something that would need to be documented rather than merely assumed.

PCFFA-20, p. 9. This skepticism was never addressed through adequate documentation of CALSIM errors, testing, and calibration.

With the exception of the San Joaquin River component of the CALSIM model, it appears that none of the components of the model have had a published technical peer review. Given the concerns expressed by peer reviewers and others in the modeling community about problems with the modeling of hydrologic processes, this should be of major concern when the model is proposed to be used as evidence of "no harm" to legal users of water. For this reason, the

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CALSIM II and its Use for Water Planning, Management, and Operations in Central California,"CALFED Science Program (Dec. 4, 2003).

[27] Exhibit PCFFA-79 is a true and correct copy of the document Review Panel Report San Joaquin River Valley CalSim II Model Review, 2006.

[28] Exhibit PCFFA-80 is a true and correct copy of the document Peer Review Response: A Report by DWR/Reclamation in Reply to the Peer Review of the CalSim-II Model Sponsored by the CALFED Science Program in December 2003.

omission by Petitioners of the 2003 and 2006 CALSIM peer reviews from evidence submitted for the hearing, while repeatedly referring to the peer reviews as if they validated the proposed use of the model, is misleading and obfuscatory.

I incorporate here by reference and join in the conclusions of testimony to this point submitted directly as a party by Deirdre Des Jardins, principal at California Water Research, as part of her case in chief.

VIII. CONCLUSION

During the time period for the proposed permit, there are significant risks to water supply and water quality from sea level rise, shifts in hydrology due to climate change, and shifts in climate as have been seen in the record of flows reconstructed from tree ring data. I believe that it is essential that these risks be adequately assessed, in order to provide sufficient information for both the Board and for parties representing beneficial uses in the Areas of Origin, as well as for decisions involving water quality and public trust resources.

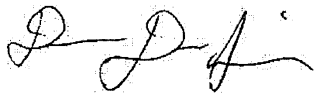
In summary, my recommendations are as follows:

1. The Board should require DWR to submit modelled operations using the Q2 drier, warmer scenario for consideration in the WaterFix hearing. The Q2 scenario is the scenario with the greatest risk. Model results for the Q2 scenario were provided for the Biological Assessment (SWRCB-104, Appendix 5A), but the Biological Assessment does not have the same operational assumptions as the CALSIM runs conducted for the WaterFix hearing, and did not look at model results related to legal users of water;
2. The Board should take into account current guidance based on the best available science and require DWR and Reclamation to submit WaterFix model results using the 18 inch

early long term (ELT) BDCP DEIR/DEIS scenario for sea level rise, in addition to the 6 inch scenario currently evaluated;

3. The Board should require that DWR and Reclamation submit a sensitivity analysis for the WaterFix with long term project operations at 1.4 meters (55 inches) of sea level rise, as specified in the Delta Reform Act;
4. The Board should require that DWR and Reclamation produce information on water supply and water quality under the proposed change for the droughts of 1987-1992 and 1928-1934.
5. The Board should require that DWR and Reclamation disclose, the extent such reports exist, or newly produce, if such reports do not exist, testing and calibration reports for the CALSIM model components that represent hydrologic process.
6. The Board should require that DWR and Reclamation newly produce a validation report for the CALSIM model used by petitioners to model the WaterFix project that includes appropriate input data.

Executed on this 2nd day of September, 2016 in Santa Cruz, California.



Deirdre Des Jardins

The following exhibits are referenced in the portion of this Exhibit 1 relating to sea level rise. Please include them in the administrative record for this matter. Each reference below provides a hyperlink to a webpage containing the document. That is sufficient to make the document part of the administrative record. *Consolidated Irrigation District v. Superior Court of Fresno County* (2012) 205 Cal.App.4th 697, 724-725 (documents part of administrative record because commenter provided "a citation to the specific Web page containing the document"). Additionally, DWR and Reclamation already possess these files by virtue of their status as parties to the State Water Resources Control Board proceeding during which they were submitted. Conservation Groups are happy to provide an additional paper copy upon request. This independently renders the documents part of the administrative record. *Consolidated Irrigation District v. Superior Court of Fresno County* (2012) 205 Cal.App.4th 697, 724 (agency possessed documents in files for other projects, and commenter offered to provide additional copies, so documents were part of administrative record).

The documents can be grouped into the following 4 categories:

1. Graphs and documents obtained from the United States Army Corps of Engineers' Sea Level Rise Calculator:

   Exhibit PCFFA-78, Graphs, Deirdre Des Jardins, Climate Change Modeling for the BDCP / WaterFix, Figures 1-21. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_78_DDJg.pdf

   Exhibit PCFFA-64, United States Army Corps of Engineers, table of regionally corrected sea level rise estimates for Port Chicago. August 16, 2016. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_64_table.pdf

   Exhibit PCFFA-65, United States Army Corps of Engineers, graph of regionally corrected sea level rise estimates for Port Chicago. August 16, 2016. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_65_graph.pdf

   Exhibit PCFFA-66, United States Army Corps of Engineers, Port Chicago sea level gauge data. August 16, 2016. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_66_guage.pdf

2. Technical reports, scientific journal articles, and letters from the Delta Independent Science Board:

   Exhibit PCFFA-8, September 6, 2007 Letter from Mike Healey to John Kirlin Re: Projections of Sea Level Rise for the Delta P Projections of Sea Level Rise for the Delta. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_08_Healey.pdf

Exhibit PCFFA-9, May 15, 2014 Letter from Delta Independent Science Board to Randy Fiorini Re: Review of the Draft EIR/EIS for the Bay Delta Conservation Plan. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_09_ISB.pdf

Exhibit PCFFA-10, National Oceanic and Atmospheric Administration Technical Report: Global Sea Level Rise Scenarios for the United States National Climate Assessment. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_10_NOAA.pdf

Exhibit PCFFA-63, Sutterley, T. C., I. Velicogna, E. Rignot, J. Mouginot, T. Flament, M. R. van den Broeke, J. M. van Wessem, and C. H. Reijmer, Mass loss of the Amundsen Sea Embayment of West Antarctica from four independent techniques, 41 Geophys. Res. Lett. 8421–8428. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_63_Sutt.pdf

Exhibit PCFFA-67, J. Hansen, M. Sato, P. Hearty, R. Ruedy, M. Kelley, V. Masson-Delmotte, G. Russell, G. Tselioudis, J. Cao, E. Rignot, I. Velicogna, E. Kandiano, K. von Schuckmann, P. Kharecha, A. N. Legrande, M. Bauer, and K.-W. Lo, Ice melt, sea level rise and superstorms: evidence from paleoclimate data, climate modeling, and modern observations that 2 °C global warming is highly dangerous. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_67_Hansen.pdf

Exhibit PCFFA-68, Gregory Flato et. al., Climate Change 2013 The Physical Science Basis, Chapter 9: Evaluation of Climate Models. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_68_Flato.pdf

Exhibit PCFFA-69, Climate Change Scenarios And Sea Level Rise Estimates for the California 2009 Climate Change Scenarios Assessment, A Paper From the California Climate Change Center. Dan Cayan, Mary Tyree, Mike Dettinger, Hugo Hidalgo, Tapash Das, Ed Maurer, Peter Bromirski, Nicholas Graham, and Reinhard Flick. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_69_Cayan.pdf

Exhibit PCFFA-72, Sarah Null and Josh Viers, Water and Energy Sector Vulnerability to Climate Warming in the Sierra Nevada: Water Year Classification in Non-Stationary Climates, July 31, 2012. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_72_Null.pdf

Exhibit PCFFA-74, David M. Meko, Matthew D. Therrell, Christopher H. Baisan, and Malcolm K Hughes, Sacramento River Flow Reconstructed To Ad. 869 From Tree Rings, Journal Of The American Water Resources Association, VOL. 37, NO.4, August 2001. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_74_Meko01.pdf

Exhibit IFR-1, David M. Meko, Central Valley Droughts Over Last 1,000 Years, 2009 California Extreme Precipitation Symposium (UC Davis, June 24, 2009). Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/IFR-1_Meko.pdf

3. Technical reports from the Bay Delta Conservation Plan process and the California Department of Water Resources

Exhibit PCFFA-62, March 2013, Revised Administrative Draft, Bay Delta Conservation Plan, Appendix 2.C, Climate Change Implications and Assumptions. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_62_BDCP2C.pdf

Exhibit PCFFA-70, Department of Water Resources, Perspectives and Guidance for Climate Change Analysis. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_70_DWRcc.pdf

Exhibit PCFFA-71, Francis Chung et. al., Using Future Climate Projections to Support Water Resources Decision Making in California, California Climate Change Center, Final Report, May 2009 http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_71_Chung.pdf

Exhibit PCFFA-73, Abdul Khan and Andrew Schwarz Climate Change Characterization and Analysis in California Water Resources Planning Studies, Final Report, Department of Water Resources December 2010. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_73_Khan.pdf

4. External reviews of CALSIM by the CALFED Bay-Delta Authority Science Program and the response by the Department of Water Resources and the U.S. Bureau of Reclamation:

Exhibit PCFFA-20, Close et. al., 2003, A Strategic Review of CalSim II and its Use for Water Planning, Management, and Operations in Central California. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_20_review.pdf

Exhibit PCFFA-79, Review Panel Report San Joaquin River Valley CalSim II Model Review, 2006. Available at

http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_79_PR2006.pdf

Exhibit PCFFA-80, PEER REVIEW RESPONSE: A Report by DWR/Reclamation in Reply to the Peer Review of the CalSim-II Model Sponsored by the CALFED Science Program in December 2003. Available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/PCFFA&IGFR/PCFFA_80_PR2004.pdf

EXHIBIT 2

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
WASHINGTON, D.C. 20503

August 1, 2016

MEMORANDUM FOR HEADS OF FEDERAL DEPARTMENTS AND AGENCIES

FROM: CHRISTINA GOLDFUSS
COUNCIL ON ENVIRONMENTAL QUALITY

SUBJECT: Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews

I. INTRODUCTION

The Council on Environmental Quality (CEQ) issues this guidance to assist Federal agencies in their consideration of the effects of greenhouse gas (GHG) emissions[1] and climate change when evaluating proposed Federal actions in accordance with the National Environmental Policy Act (NEPA) and the CEQ Regulations Implementing the Procedural Provisions of NEPA (CEQ Regulations).[2] This guidance will facilitate compliance with existing NEPA requirements, thereby improving the efficiency and consistency of reviews of proposed Federal actions for agencies, decision makers, project proponents, and the public.[3] The guidance provides Federal agencies a common

[1] For purposes of this guidance, CEQ defines GHGs in accordance with Section 19(m) of Exec. Order No. 13693, Planning for Federal Sustainability in the Next Decade, 80 Fed. Reg. 15869, 15882 (Mar. 25, 2015) (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur hexafluoride). Also for purposes of this guidance, "emissions" includes release of stored GHGs as a result of land management activities affecting terrestrial GHG pools such as, but not limited to, carbon stocks in forests and soils, as well as actions that affect the future changes in carbon stocks. The common unit of measurement for GHGs is metric tons of CO_2 equivalent (mt CO_2-e).

[2] *See* 42 U.S.C. 4321 et seq.; 40 CFR Parts 1500–1508.

[3] This guidance is not a rule or regulation, and the recommendations it contains may not apply to a particular situation based upon the individual facts and circumstances. This guidance does not change or substitute for any law, regulation, or other legally binding

approach for assessing their proposed actions, while recognizing each agency's unique circumstances and authorities.[4]

Climate change is a fundamental environmental issue, and its effects fall squarely within NEPA's purview.[5] Climate change is a particularly complex challenge given its global nature and the inherent interrelationships among its sources, causation, mechanisms of action, and impacts. Analyzing a proposed action's GHG emissions and the effects of climate change relevant to a proposed action—particularly how climate change may change an action's environmental effects—can provide useful information to decision makers and the public.

CEQ is issuing the guidance to provide for greater clarity and more consistency in how agencies address climate change in the environmental impact assessment process. This guidance uses longstanding NEPA principles because such an analysis should be similar to the analysis of other environmental impacts under NEPA. The guidance is intended to assist agencies in disclosing and considering the reasonably foreseeable effects of proposed actions that are relevant to their decision-making processes. It confirms that agencies should provide the public and decision makers with explanations of the basis for agency determinations.

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requirement, and is not legally enforceable. The use of non-mandatory language such as "guidance," "recommend," "may," "should," and "can," is intended to describe CEQ policies and recommendations. The use of mandatory terminology such as "must" and "required" is intended to describe controlling requirements under the terms of NEPA and the CEQ regulations, but this document does not affect legally binding requirements.

[4] This guidance also addresses recommendations offered by a number of stakeholders. *See* President's State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience, *Recommendations to the President* (November 2014), p. 20 (recommendation 2.7), *available at* www.whitehouse.gov/sites/default/files/docs/task_force_report_0.pdf; U.S. Government Accountability Office, *Future Federal Adaptation Efforts Could Better Support Local Infrastructure Decision Makers*, (Apr. 2013), *available at* http://www.gao.gov/assets/660/653741.pdf. Public comments on drafts of this guidance document are available at http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/comments.

[5] NEPA recognizes "the profound impact of man's activity on the interrelations of all components of the natural environment." (42 U.S.C. 4331(a)). It was enacted to, *inter alia,* "promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man." (42 U.S.C. 4321).

Focused and effective consideration of climate change in NEPA reviews[6] will allow agencies to improve the quality of their decisions. Identifying important interactions between a changing climate and the environmental impacts from a proposed action can help Federal agencies and other decision makers identify practicable opportunities to reduce GHG emissions, improve environmental outcomes, and contribute to safeguarding communities and their infrastructure against the effects of extreme weather events and other climate-related impacts.

Agencies implement NEPA through one of three levels of NEPA analysis: a Categorical Exclusion (CE); an Environmental Assessment (EA); or an Environmental Impact Statement (EIS). This guidance is intended to help Federal agencies ensure their analysis of potential GHG emissions and effects of climate change in an EA or EIS is commensurate with the extent of the effects of the proposed action.[7] Agencies have discretion in how they tailor their individual NEPA reviews to accommodate the approach outlined in this guidance, consistent with the CEQ Regulations and their respective implementing procedures and policies.[8] CEQ does not expect that implementation of this guidance will require agencies to develop new NEPA implementing procedures. However, CEQ recommends that agencies review their NEPA procedures and propose any updates they deem necessary or appropriate to facilitate their consideration of GHG emissions and climate change.[9] CEQ will review agency

[6] The term "NEPA review" is used to include the analysis, process, and documentation required under NEPA. While this document focuses on NEPA reviews, agencies are encouraged to analyze GHG emissions and climate-resilient design issues early in the planning and development of proposed actions and projects under their substantive authorities.
[7] *See* 40 CFR 1502.2(b) (Impacts shall be discussed in proportion to their significance); 40 CFR 1502.15 (Data and analyses in a statement shall be commensurate with the importance of the impact…).
[8] *See* 40 CFR 1502.24 (Methodology and scientific accuracy).
[9] *See* 40 CFR 1507.3. Agency NEPA implementing procedures can be, but are not required to be, in the form of regulation. Section 1507.3 encourages agencies to publish explanatory guidance, and agencies also should consider whether any updates to explanatory guidance are necessary. Agencies should review their policies and implementing procedures and revise them as necessary to ensure full compliance with NEPA.

proposals for revising their NEPA procedures, including any revision of CEs, in light of this guidance.

As discussed in this guidance, when addressing climate change agencies should consider: (1) The potential effects of a proposed action on climate change as indicated by assessing GHG emissions (e.g., to include, where applicable, carbon sequestration);[10] and, (2) The effects of climate change on a proposed action and its environmental impacts.

This guidance explains the application of NEPA principles and practices to the analysis of GHG emissions and climate change, and

- Recommends that agencies quantify a proposed agency action's projected direct and indirect GHG emissions, taking into account available data and GHG quantification tools that are suitable for the proposed agency action;
- Recommends that agencies use projected GHG emissions (to include, where applicable, carbon sequestration implications associated with the proposed agency action) as a proxy for assessing potential climate change effects when preparing a NEPA analysis for a proposed agency action;
- Recommends that where agencies do not quantify a proposed agency action's projected GHG emissions because tools, methodologies, or data inputs are not reasonably available to support calculations for a quantitative analysis, agencies include a qualitative analysis in the NEPA document and explain the basis for determining that quantification is not reasonably available;

[10] Carbon sequestration is the long-term carbon storage in plants, soils, geologic formations, and oceans.

- Discusses methods to appropriately analyze reasonably foreseeable direct, indirect, and cumulative GHG emissions and climate effects;
- Guides the consideration of reasonable alternatives and recommends agencies consider the short- and long-term effects and benefits in the alternatives and mitigation analysis;
- Advises agencies to use available information when assessing the potential future state of the affected environment in a NEPA analysis, instead of undertaking new research that is , and provides examples of existing sources of scientific information;
- Counsels agencies to use the information developed during the NEPA review to consider alternatives that would make the actions and affected communities more resilient to the effects of a changing climate;
- Outlines special considerations for agencies analyzing biogenic carbon dioxide sources and carbon stocks associated with land and resource management actions under NEPA;
- Recommends that agencies select the appropriate level of NEPA review to assess the broad-scale effects of GHG emissions and climate change, either to inform programmatic (e.g., landscape-scale) decisions, or at both the programmatic and tiered project- or site-specific level, and to set forth a reasoned explanation for the agency's approach; and
- Counsels agencies that the "rule of reason" inherent in NEPA and the CEQ Regulations allows agencies to determine, based on their expertise and

experience, how to consider an environmental effect and prepare an analysis based on the available information.

II. BACKGROUND

A. NEPA

NEPA is designed to promote consideration of potential effects on the human environment[11] that would result from proposed Federal agency actions, and to provide the public and decision makers with useful information regarding reasonable alternatives[12] and mitigation measures to improve the environmental outcomes of Federal agency actions. NEPA ensures that the environmental effects of proposed actions are taken into account before decisions are made and informs the public of significant environmental effects of proposed Federal agency actions, promoting transparency and accountability concerning Federal actions that may significantly affect the quality of the human environment. NEPA reviews should identify measures to avoid, minimize, or mitigate adverse effects of Federal agency actions. Better analysis and decisions are the ultimate goal of the NEPA process.[13]

Inherent in NEPA and the CEQ Regulations is a "rule of reason" that allows agencies to determine, based on their expertise and experience, how to consider an environmental effect and prepare an analysis based on the available information. The usefulness of that information to the decision-making process and the public, and the

[11] 40 CFR 1508.14 ("'Human environment' shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment.").
[12] 40 CFR 1508.25(b) ("Alternatives, which include: (1) No action alternative. (2) Other reasonable courses of actions. (3) Mitigation measures (not in the proposed action).").
[13] 40 CFR 1500.1(c) ("Ultimately, of course, it is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.").

extent of the anticipated environmental consequences are important factors to consider when applying that "rule of reason."

B. Climate Change

Climate change science continues to expand and refine our understanding of the impacts of anthropogenic GHG emissions. CEQ's first Annual Report in 1970 referenced climate change, indicating that "[m]an may be changing his weather."[14] At that time, the mean level of atmospheric carbon dioxide (CO_2) had been measured as increasing to 325 parts per million (ppm) from an average of 280 ppm pre-Industrial levels.[15] Since 1970, the concentration of atmospheric carbon dioxide has increased to approximately 400 ppm (2015 globally averaged value).[16] Since the publication of CEQ's first Annual Report, it has been determined that human activities have caused the carbon dioxide content of the atmosphere of our planet to increase to its highest level in at least 800,000 years.[17]

It is now well established that rising global atmospheric GHG emission concentrations are significantly affecting the Earth's climate. These conclusions are built upon a scientific record that has been created with substantial contributions from the

[14] *See* CEQ, *Environmental Quality The First Annual Report*, p. 93 (August 1970); *available at* https://ceq.doe.gov/ceq_reports/annual_environmental_quality_reports.html.
[15] *See* USGCRP, *Climate Change Impacts in the United States The Third National Climate Assessment* (Jerry M. Melillo, Terese (T.C.) Richmond, & Gary W. Yohe eds., 2014) [hereinafter "Third National Climate Assessment"], *Appendix 3 Climate Science Supplement*, p. 739; EPA, April 2015: *Inventory of U.S. Greenhouse Emissions and Sinks 1990-2013, available at* https://www3.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf. *See also* Hartmann, D.L., A.M.G. Klein Tank, M. Rusticucci, et al., *2013 Observations Atmosphere and Surface. In Climate Change 2013 The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K., et al. (eds)]. Cambridge University Press: Cambridge, United Kingdom and New York, NY, USA. *Available at* http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter02_Final.pdf.
[16] *See* Ed Dlugokencky & Pieter Tans, National Oceanic and Atmospheric Administration/Earth System Research Laboratory, http://www.esrl.noaa.gov/gmd/ccgg/trends/global.html.
[17] *See* http://earthobservatory.nasa.gov/Features/CarbonCycle; University of California Riverside, National Aeronautics and Space Administration (NASA), and Riverside Unified School District, *Down to Earth Climate Change*, http://globalclimate.ucr.edu/resources.html; USGCRP, *Third National Climate Assessment, Appendix 3 Climate Science Supplement*, p. 736 ("Although climate changes in the past have been caused by natural factors, human activities are now the dominant agents of change. Human activities are affecting climate through increasing atmospheric levels of heat-trapping gases and other substances, including particles.").

United States Global Change Research Program (USGCRP), which informs the United States' response to global climate change through coordinated Federal programs of research, education, communication, and decision support.[18] Studies have projected the effects of increasing GHGs on many resources normally discussed in the NEPA process, including water availability, ocean acidity, sea-level rise, ecosystem functions, energy production, agriculture and food security, air quality and human health.[19]

Based primarily on the scientific assessments of the USGCRP, the National Research Council, and the Intergovernmental Panel on Climate Change, in 2009 the Environmental Protection Agency (EPA) issued a finding that the changes in our climate caused by elevated concentrations of greenhouse gases in the atmosphere are reasonably anticipated to endanger the public health and public welfare of current and future generations.[20] In 2015, EPA acknowledged more recent scientific assessments that "highlight the urgency of addressing the rising concentration of CO_2 in the atmosphere," finding that certain groups are especially vulnerable to climate-related effects.[21] Broadly

[18] *See* Global Change Research Act of 1990, Pub. L. 101–606, Sec. 103 (November 16, 1990). For additional information on the United States Global Change Research Program [hereinafter "USGCRP"], visit http://www.globalchange.gov. The USGCRP, formerly the Climate Change Science Program, coordinates and integrates the activities of 13 Federal agencies that conduct research on changes in the global environment and their implications for society. The USGCRP began as a Presidential initiative in 1989 and was codified in the Global Change Research Act of 1990 (Public Law 101–606). USGCRP-participating agencies are the Departments of Agriculture, Commerce, Defense, Energy, Interior, Health and Human Services, State, and Transportation; the U.S. Agency for International Development, the Environmental Protection Agency, NASA, the National Science Foundation, and the Smithsonian Institution.

[19] *See* USGCRP, *Third National Climate Assessment*, *available at* http://nca2014.globalchange.gov/system/files_force/downloads/low/NCA3_Climate_Change_Impacts_in_the_United%20States_LowRes.pdf?download=1; IPCC, *Climate Change 2014 Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (R.K. Pachauri, & L.A. Meyer eds., 2014), *available at* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full.pdf; *see also* http://www.globalchange.gov; 40 CFR 1508.8 (effects include ecological, aesthetic, historic, cultural, economic, social, and health effects); USGCRP, *The Impacts of Climate Change on Human Health in the United States A Scientific Assessment, available at* https://health2016.globalchange.gov/.

[20] *See generally Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66496 (Dec. 15, 2009). (For example, at 66497-98: "[t]he evidence concerning how human-induced climate change may alter extreme weather events also clearly supports a finding of endangerment, given the serious adverse impacts that can result from such events and the increase in risk, even if small, of the occurrence and intensity of events such as hurricanes and floods. Additionally, public health is expected to be adversely affected by an increase in the severity of coastal storm events due to rising sea levels").

[21] *See* EPA, *Final Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources Electric Utility Generating Units*, 80 Fed. Reg. 64661, 64677 (Oct. 23, 2015) ("Certain groups, including children, the elderly, and the poor, are most vulnerable to climate-related effects. Recent studies also find that certain communities, including low-income communities and some communities of color … are disproportionately affected by certain climate change related impacts—including heat waves, degraded air quality, and

stated, the effects of climate change observed to date and projected to occur in the future include more frequent and intense heat waves, longer fire seasons and more severe wildfires, degraded air quality, more heavy downpours and flooding, increased drought, greater sea-level rise, more intense storms, harm to water resources, harm to agriculture, ocean acidification, and harm to wildlife and ecosystems.[22]

III. CONSIDERING THE EFFECTS OF GHG EMISSIONS AND CLIMATE CHANGE

This guidance is applicable to all Federal actions subject to NEPA, including site-specific actions, certain funding of site-specific projects, rulemaking actions, permitting decisions, and land and resource management decisions.[23] This guidance does not – and cannot – expand the range of Federal agency actions that are subject to NEPA. Consistent with NEPA, Federal agencies should consider the extent to which a proposed action and its reasonable alternatives would contribute to climate change, through GHG emissions, and take into account the ways in which a changing climate may impact the proposed action and any alternative actions, change the action's environmental effects over the lifetime of those effects, and alter the overall environmental implications of such actions.

This guidance is intended to assist agencies in disclosing and considering the effects of GHG emissions and climate change along with the other reasonably foreseeable environmental effects of their proposed actions. This guidance does not establish any

extreme weather events—which are associated with increased deaths, illnesses, and economic challenges. Studies also find that climate change poses particular threats to the health, well-being, and ways of life of indigenous peoples in the U.S.").

[22] *See* http://www.globalchange.gov/climate-change/impacts-society and Third National Climate Assessment, Chapters 3-15 (Sectors) and Chapters 16-25 (Regions), *available at* http://nca2014.globalchange.gov/downloads.

[23] *See* 40 CFR 1508.18.

particular quantity of GHG emissions as "significantly" affecting the quality of the human environment or give greater consideration to the effects of GHG emissions and climate change over other effects on the human environment.

A. GHG Emissions as a Proxy for the Climate Change Impacts of a Proposed Action

In light of the global scope of the impacts of GHG emissions, and the incremental contribution of each single action to global concentrations, CEQ recommends agencies use the projected GHG emissions associated with proposed actions as a proxy for assessing proposed actions' potential effects on climate change in NEPA analysis.[24] This approach, together with providing a qualitative summary discussion of the impacts of GHG emissions based on authoritative reports such as the USGCRP's National Climate Assessments and the Impacts of Climate Change on Human Health in the United States, a Scientific Assessment of the USGCRP, allows an agency to present the environmental and public health impacts of a proposed action in clear terms and with sufficient information to make a reasoned choice between no action and other alternatives and appropriate mitigation measures, and to ensure the professional and scientific integrity of the NEPA review.[25]

Climate change results from the incremental addition of GHG emissions from millions of individual sources,[26] which collectively have a large impact on a global scale.

[24] *See* 40 CFR 1502.16, 1508.9.
[25] *See* 40 CFR 1500.1, 1502.24 (requiring agencies to use high quality information and ensure the professional and scientific integrity of the discussions and analyses in environmental impact statements).
[26] Some sources emit GHGs in quantities that are orders of magnitude greater than others. *See* EPA, *Greenhouse Gas Reporting Program 2014 Reported Data*, Figure 2: Direct GHG Emissions Reported by Sector (2014), *available at* https://www.epa.gov/ghgreporting/ghgrp-2014-reported-data (amounts of GHG emissions by sector); *Final Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources Electric Utility Generating Units*, 80 Fed. Reg. 64661, 64663, 64689 (Oct. 23, 2015) (regulation of GHG emissions from fossil fuel-fired electricity generating power plants); *Oil and Natural Gas Sector Emission Standards for New, Reconstructed, and Modified Sources*, 81 Fed. Reg. 34824, 35830 (June 3, 2016 (regulation of GHG emissions from oil and gas sector).

CEQ recognizes that the totality of climate change impacts is not attributable to any single action, but are exacerbated by a series of actions including actions taken pursuant to decisions of the Federal Government. Therefore, a statement that emissions from a proposed Federal action represent only a small fraction of global emissions is essentially a statement about the nature of the climate change challenge, and is not an appropriate basis for deciding whether or to what extent to consider climate change impacts under NEPA. Moreover, these comparisons are also not an appropriate method for characterizing the potential impacts associated with a proposed action and its alternatives and mitigations because this approach does not reveal anything beyond the nature of the climate change challenge itself: the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large impact. When considering GHG emissions and their significance, agencies should use appropriate tools and methodologies for quantifying GHG emissions and comparing GHG quantities across alternative scenarios. Agencies should not limit themselves to calculating a proposed action's emissions as a percentage of sector, nationwide, or global emissions in deciding whether or to what extent to consider climate change impacts under NEPA.

1. GHG Emissions Quantification and Relevant Tools

This guidance recommends that agencies quantify a proposed agency action's projected direct and indirect GHG emissions. Agencies should be guided by the principle that the extent of the analysis should be commensurate with the quantity of projected GHG emissions and take into account available data and GHG quantification tools that

are suitable for and commensurate with the proposed agency action.[27] The rule of reason and the concept of proportionality caution against providing an in-depth analysis of emissions regardless of the insignificance of the quantity of GHG emissions that would be caused by the proposed agency action.

Quantification tools are widely available, and are already in broad use in the Federal and private sectors, by state and local governments, and globally.[28] Such quantification tools and methodologies have been developed to assist institutions, organizations, agencies, and companies with different levels of technical sophistication, data availability, and GHG source profiles. When data inputs are reasonably available to support calculations, agencies should conduct GHG analysis and disclose quantitative estimates of GHG emissions in their NEPA reviews. These tools can provide estimates of GHG emissions, including emissions from fossil fuel combustion and estimates of GHG emissions and carbon sequestration for many of the sources and sinks potentially affected by proposed resource management actions.[29] When considering which tool(s) to employ, it is important to consider the proposed action's temporal scale, and the availability of input data.[30] Examples of the kinds of methodologies agencies might consider using are presented in CEQ's 2012 Guidance for Accounting and Reporting GHG Emissions for a wide variety of activities associated with Federal agency operations.[31] When an agency determines that quantifying GHG emissions would not be

[27] *See* 40 CFR 1500.1(b) ("Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail."); 40 CFR 1502.2(b) (Impacts shall be discussed in proportion to their significance); 40 CFR 1502.15 (Data and analyses in a statement shall be commensurate with the importance of the impact…).
[28] *See* https://ceq.doe.gov/current_developments/GHG-accounting-tools.html.
[29] For example, USDA's COMET-Farm tool can be used to assess the carbon sequestration of existing agricultural activities along with the reduction in carbon sequestration (emissions) of project-level activities, http://cometfarm.nrel.colostate.edu/. Examples of other tools are available at https://ceq.doe.gov/current_developments/GHG-accounting-tools.html.
[30] *See* 40 CFR 1502.22.
[31] *See* https://www.whitehouse.gov/sites/default/files/microsites/ceq/revised_federal_greenhouse_gas_accounting_and_reporting_guidance_

warranted because tools, methodologies, or data inputs are not reasonably available, the agency should provide a qualitative analysis and its rationale for determining that the quantitative analysis is not warranted. A qualitative analysis can rely on sector-specific descriptions of the GHG emissions of the category of Federal agency action that is the subject of the NEPA analysis.

When updating their NEPA procedures[32] and guidance, agencies should coordinate with CEQ to identify 1) the actions that normally warrant quantification of their GHG emissions, and consideration of the relative GHG emissions associated with alternative actions and 2) agency actions that normally do not warrant such quantification because tools, methodologies, or data inputs are not reasonably available. The determination of the potential significance of a proposed action remains subject to agency practice for the consideration of context and intensity, as set forth in the CEQ Regulations.[33]

2. The Scope of the Proposed Action

In order to assess effects, agencies should take account of the proposed action – including "connected" actions[34] – subject to reasonable limits based on feasibility and practicality. Activities that have a reasonably close causal relationship to the Federal action, such as those that may occur as a predicate for a proposed agency action or as a consequence of a proposed agency action, should be accounted for in the NEPA analysis.

060412.pdf. Federal agencies' Strategic Sustainability Performance Plans reflecting their annual GHG inventories and reports under Executive Order 13514 are available at https://www.performance.gov/node/3406/view?view=public#supporting-info.

[32] *See* 40 CFR 1507.3.

[33] 40 CFR 1508.27 ("'Significantly' as used in NEPA requires considerations of both context and intensity: (a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. . . . (b) Intensity. This refers to the severity of impact.").

[34] 40 CFR 1508.25(a) (Actions are connected if they: (i) Automatically trigger other actions which may require environmental impact statements; (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously, or; (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.).

For example, NEPA reviews for proposed resource extraction and development projects typically include the reasonably foreseeable effects of various phases in the process, such as clearing land for the project, building access roads, extraction, transport, refining, processing, using the resource, disassembly, disposal, and reclamation. Depending on the relationship between any of the phases, as well as the authority under which they may be carried out, agencies should use the analytical scope that best informs their decision making.

The agency should focus on significant potential effects and conduct an analysis that is proportionate to the environmental consequences of the proposed action.[35] Agencies can rely on basic NEPA principles to determine and explain the reasonable parameters of their analyses in order to disclose the reasonably foreseeable effects that may result from their proposed actions.[36]

3. Alternatives

Considering alternatives, including alternatives that mitigate GHG emissions, is fundamental to the NEPA process and accords with NEPA Sections 102(2)(C) and 102(2)(E).[37] The CEQ regulations emphasize that the alternatives analysis is the heart of the EIS under NEPA Section 102(2)(C).[38] NEPA Section 102(2)(E) provides an independent requirement for the consideration of alternatives in environmental documents.[39] NEPA calls upon agencies to use the NEPA process to "identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment."[40] The requirement to

[35] *See* 40 CFR 1501.7(a)(3), 1502.2(b), and 1502.15.
[36] *See* 40 CFR 1502.16.
[37] 42 U.S.C. 4332(2)(C), 4332(2)(E); 40 CFR 1502.14, 1508.9(b).
[38] 40 CFR 1502.14.
[39] *See* 40 CFR 1500.2, 1508.9(b).
[40] 40 CFR 1500.2(c).

consider alternatives ensures that agencies account for approaches with no, or less, adverse environmental effects for a particular resource.

Consideration of alternatives also provides each agency decision maker the information needed to examine other possible approaches to a particular proposed action (including the no action alternative) that could alter the environmental impact or the balance of factors considered in making the decision. Agency decisions are aided when there are reasonable alternatives that allow for comparing GHG emissions and carbon sequestration potential, trade-offs with other environmental values, and the risk from – and resilience to – climate change inherent in a proposed action and its design.

Agencies must consider a range of reasonable alternatives consistent with the level of NEPA review (e.g., EA or EIS) and the purpose and need for the proposed action, as well as reasonable mitigation measures if not already included in the proposed action or alternatives.[41] Accordingly, a comparison of these alternatives based on GHG emissions and any potential mitigation measures can be useful to advance a reasoned choice among alternatives and mitigation actions. When conducting the analysis, an agency should compare the anticipated levels of GHG emissions from each alternative – including the no-action alternative – and mitigation actions to provide information to the public and enable the decision maker to make an informed choice.

Agencies should consider reasonable alternatives and mitigation measures to reduce action-related GHG emissions or increase carbon sequestration in the same fashion as they consider alternatives and mitigation measures for any other environmental effects. NEPA, the CEQ Regulations, and this guidance do not require the decision

[41] *See* 42 U.S.C. 4332(2)(C), 4332(2)(E), and 40 CFR 1502.14(f), 1508.9(b). The purpose and need for action usually reflects both the extent of the agency's statutory authority and its policies.

maker to select the alternative with the lowest net level of emissions. Rather, they allow for the careful consideration of emissions and mitigation measures along with all the other factors considered in making a final decision.

4. Direct and Indirect Effects

If the direct and indirect GHG emissions can be quantified based on available information, including reasonable projections and assumptions, agencies should consider and disclose the reasonably foreseeable direct and indirect emissions when analyzing the direct and indirect effects of the proposed action.[42] Agencies should disclose the information and any assumptions used in the analysis and explain any uncertainties.

To compare a project's estimated direct and indirect emissions with GHG emissions from the no-action alternative, agencies should draw on existing, timely, objective, and authoritative analyses, such as those by the Energy Information Administration, the Federal Energy Management Program, or Office of Fossil Energy of the Department of Energy.[43] In the absence of such analyses, agencies should use other available information. When such analyses or information for quantification is unavailable, or the complexity of comparing emissions from various sources would make quantification overly speculative, then the agency should quantify emissions to the extent that this information is available and explain the extent to which quantified emissions information is unavailable while providing a qualitative analysis of those emissions. As

[42] For example, where the proposed action involves fossil fuel extraction, direct emissions typically include GHGs emitted during the process of exploring for or extracting the fossil fuel. The indirect effects of such an action that are reasonably foreseeable at the time would vary with the circumstances of the proposed action. For actions such as a Federal lease sale of coal for energy production, the impacts associated with the end-use of the fossil fuel being extracted would be the reasonably foreseeable combustion of that coal.
[43] For a current example, see Office of Fossil Energy, Nat'l Energy Tech. Lab., U.S. Dep't of Energy, *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States*, Pub. No. DOE/NETL-2014/1649 (2014), *available at* http://energy.gov/sites/prod/files/2014/05/f16/Life%20Cycle%20GHG%20Perspective%20Report.pdf.

with any NEPA analysis, the level of effort should be proportionate to the scale of the emissions relevant to the NEPA review.

5. Cumulative Effects

"Cumulative impact" is defined in the CEQ Regulations as the "impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions."[44] All GHG emissions contribute to cumulative climate change impacts. However, for most Federal agency actions CEQ does not expect that an EIS would be required based *solely* on the global significance of cumulative impacts of GHG emissions, as it would not be consistent with the rule of reason to require the preparation of an EIS for every Federal action that may cause GHG emissions regardless of the magnitude of those emissions.

Based on the agency identification and analysis of the direct and indirect effects of its proposed action, NEPA requires an agency to consider the cumulative impacts of its proposed action and reasonable alternatives.[45] As noted above, for the purposes of NEPA, the analysis of the effects of GHG emissions is essentially a cumulative effects analysis that is subsumed within the general analysis and discussion of climate change impacts. Therefore, direct and indirect effects analysis for GHG emissions will adequately address the cumulative impacts for climate change from the proposed action and its alternatives and a separate cumulative effects analysis for GHG emissions is not needed.

6. Short- and Long-Term Effects

[44] 40 CFR 1508.7.
[45] *See* 40 CFR 1502.16, 1508.7, 1508.8. *See also* CEQ Memorandum to Heads of Federal Agencies, *Guidance on the Consideration of Past Actions in Cumulative Effects Analysis*, June 24, 2005, *available at* https//ceq.doe.gov/nepa/regs/Guidance_on_CE.pdf.

When considering effects, agencies should take into account both the short- and long-term adverse and beneficial effects using a temporal scope that is grounded in the concept of reasonable foreseeability. Some proposed actions will have to consider effects at different stages to ensure the direct effects and reasonably foreseeable indirect effects are appropriately assessed; for example, the effects of construction are different from the effects of the operations and maintenance of a facility.

Biogenic GHG emissions and carbon stocks from some land or resource management activities, such as a prescribed burn of a forest or grassland conducted to limit loss of ecosystem function through wildfires or insect infestations, may result in short-term GHG emissions and loss of stored carbon, while in the longer term a restored, healthy ecosystem may provide long-term carbon sequestration. Therefore, the short- and long-term effects should be described in comparison to the no action alternative in the NEPA review.

7. Mitigation

Mitigation is an important component of the NEPA process that Federal agencies can use to avoid, minimize, and compensate for the adverse environmental effects associated with their actions. Mitigation, by definition, includes avoiding impacts, minimizing impacts by limiting them, rectifying the impact, reducing or eliminating the impacts over time, or compensating for them.[46] Consequently, agencies should consider reasonable mitigation measures and alternatives as provided for under existing CEQ Regulations and take into account relevant agency statutory authorities and policies. The NEPA process is also intended to provide useful advice and information to State, local

[46] *See* 40 CFR 1508.20, 1508.25 (Alternatives include mitigation measures not included in the proposed action).

and tribal governments and private parties so that the agencies can better coordinate with other agencies and organizations regarding the means to mitigate effects of their actions.[47] The NEPA process considers the effects of mitigation commitments made by project proponents or others and mitigation required under other relevant permitting and environmental review regimes.[48]

As Federal agencies evaluate potential mitigation of GHG emissions and the interaction of a proposed action with climate change, the agencies should also carefully evaluate the quality of that mitigation to ensure it is additional, verifiable, durable, enforceable, and will be implemented.[49] Agencies should consider the potential for mitigation measures to reduce or mitigate GHG emissions and climate change effects when those measures are reasonable and consistent with achieving the purpose and need for the proposed action. Such mitigation measures could include enhanced energy efficiency, lower GHG-emitting technology, carbon capture, carbon sequestration (e.g., forest, agricultural soils, and coastal habitat restoration), sustainable land management practices, and capturing or beneficially using GHG emissions such as methane.

Finally, the CEQ Regulations and guidance recognize the value of monitoring to ensure that mitigation is carried out as provided in a record of decision or finding of no significant impact.[50] The agency's final decision on the proposed action should identify those mitigation measures that the agency commits to take, recommends, or requires

[47] NEPA directs Federal agencies to make "advice and information useful in restoring, maintaining, and enhancing the quality of the environment" available to States, Tribes, counties, cities, institutions and individuals. NEPA Sec. 102(2)(G).
[48] *See* CEQ Memorandum to Heads of Federal Agencies, *Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact*, 76 FR 3843 (Jan. 21, 2011) *available at* https://ceq.doe.gov/current_developments/docs/Mitigation_and_Monitoring_Guidance_14Jan2011.pdf.
[49] *See* Presidential Memorandum: *Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment* (https://www.whitehouse.gov/the-press-office/2015/11/03/mitigating-impacts-natural-resources-development-and-encouraging-related) defining "durability" and addressing additionality.
[50] *See* 40 CFR 1505.2(c), 1505.3. *See also* CEQ Memorandum to Heads of Federal Agencies, *Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact*, 76 FR 3843 (Jan. 21, 2011) *available at* https://ceq.doe.gov/current_developments/docs/Mitigation_and_Monitoring_Guidance_14Jan2011.pdf.

others to take. Monitoring is particularly appropriate to confirm the effectiveness of mitigation when that mitigation is adopted to reduce the impacts of a proposed action on affected resources already increasingly vulnerable due to climate change.

B. CONSIDERING THE EFFECTS OF CLIMATE CHANGE ON A PROPOSED ACTION AND ITS ENVIRONMENTAL IMPACTS

According to the USGCRP and others, GHGs already in the atmosphere will continue altering the climate system into the future, even with current or future emissions control efforts.[51] Therefore, a NEPA review should consider an action in the context of the future state of the environment. In addition, climate change adaptation and resilience — defined as adjustments to natural or human systems in response to actual or expected climate changes — are important considerations for agencies contemplating and planning actions with effects that will occur both at the time of implementation and into the future.[52]

1. Affected Environment

An agency should identify the affected environment to provide a basis for comparing the current and the future state of the environment as affected by the proposed action or its reasonable alternatives.[53] The current and projected future state of the environment without the proposed action (i.e., the no action alternative) represents the reasonably foreseeable affected environment, and this should be described based on

[51] *See* Third National Climate Assessment, *Appendix 3 Climate Science Supplement* 753-754, *available at* http://s3.amazonaws.com/nca2014/low/NCA3_Full_Report_Appendix_3_Climate_Science_Supplement_LowRes.pdf?download=1.
[52] *See* Third National Climate Assessment, Chapter 28, "Adaptation" and Chapter 26, "Decision Support: Connecting Science, Risk Perception, and Decisions," *available at* http://www.globalchange.gov/nca3-downloads-materials; see also, Exec. Order No. 13653, 78 Fed. Reg. 66817 (Nov. 6, 2013) and Exec. Order No.13693, *Planning for Federal Sustainability in the Next Decade*, 80 Fed. Reg. 15869 (Mach 25, 2015) (defining "climate-resilient design").
[53] *See* 40 CFR 1502.15 (providing that environmental impact statements shall succinctly describe the environmental impacts on the area(s) to be affected or created by the alternatives under consideration).

authoritative climate change reports,[54] which often project at least two possible future scenarios.[55] The temporal bounds for the state of the environment are determined by the projected initiation of implementation and the expected life of the proposed action and its effects.[56] Agencies should remain aware of the evolving body of scientific information as more refined estimates of the impacts of climate change, both globally and at a localized level, become available.[57]

2. Impacts

The analysis of climate change impacts should focus on those aspects of the human environment that are impacted by both the proposed action and climate change. Climate change can make a resource, ecosystem, human community, or structure more susceptible to many types of impacts and lessen its resilience to other environmental impacts apart from climate change. This increase in vulnerability can exacerbate the effects of the proposed action. For example, a proposed action may require water from a stream that has diminishing quantities of available water because of decreased snow pack in the mountains, or add heat to a water body that is already warming due to increasing atmospheric temperatures. Such considerations are squarely within the scope of NEPA and can inform decisions on whether to proceed with, and how to design, the proposed action to eliminate or mitigate impacts exacerbated by climate change. They can also

[54] *See, e.g.,* Third National Climate Assessment (Regional impacts chapters) *available at* http://www.globalchange.gov/nca3-downloads-materials.
[55] *See, e.g.,* Third National Climate Assessment (Regional impacts chapters, considering a low future global emissions scenario, and a high emissions scenario) *available at* http://www.globalchange.gov/nca3-downloads-materials.
[56] CEQ, *Considering Cumulative Effects Under the National Environmental Policy Act* (1997), https://ceq.doe.gov/publications/cumulative_effects html. Agencies should also consider their work under Exec. Order No. 13653, *Preparing the United States for the Impacts of Climate Change*, 78 Fed. Reg. 66817 (Nov. 6, 2013), that considers how capital investments will be affected by a changing climate over time.
[57] *See, e.g.,* http://nca2014.globalchange.gov/report/regions/coasts.

inform possible adaptation measures to address the impacts of climate change, ultimately enabling the selection of smarter, more resilient actions.

3. Available Assessments and Scenarios

In accordance with NEPA's rule of reason and standards for obtaining information regarding reasonably foreseeable effects on the human environment, agencies need not undertake new research or analysis of potential climate change impacts in the proposed action area, but may instead summarize and incorporate by reference the relevant scientific literature.[58] For example, agencies may summarize and incorporate by reference the relevant chapters of the most recent national climate assessments or reports from the USGCRP.[59] Particularly relevant to some proposed actions are the most current reports on climate change impacts on water resources, ecosystems, agriculture and forestry, health, coastlines, and ocean and arctic regions in the United States.[60] Agencies may recognize that scenarios or climate modeling information (including seasonal, inter-annual, long-term, and regional-scale projections) are widely used, but when relying on a single study or projection, agencies should consider their limitations and discuss them.[61]

4. Opportunities for Resilience and Adaptation

As called for under NEPA, the CEQ Regulations, and CEQ guidance, the NEPA review process should be integrated with agency planning at the earliest possible time that would allow for a meaningful analysis.[62] Information developed during early

[58] *See* 40 CFR 1502.21 (material may be incorporated by reference if it is reasonably available for inspection by potentially interested persons during public review and comment).
[59] *See* http://www.globalchange.gov/browse/reports.
[60] *See* Third National Climate Assessment, *Our Changing Climate*, *available at* http://nca2014.globalchange.gov/report. Agencies should consider the latest final assessments and reports when they are updated.
[61] *See* 40 CFR 1502.22. Agencies can consult www.data.gov/climate/portals for model data archives, visualization tools, and downscaling results.
[62] *See* 42 U.S.C. 4332 ("agencies of the Federal Government shall … utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making"); 40 CFR 1501.2 ("Agencies shall integrate the NEPA process with other planning at the earliest possible time…"); *See also* CEQ Memorandum

planning processes that precede a NEPA review may be incorporated into the NEPA review. Decades of NEPA practice have shown that integrating environmental considerations with the planning process provides useful information that program and project planners can consider in the design of the proposed action, alternatives, and potential mitigation measures. For instance, agencies should take into account increased risks associated with development in floodplains, avoiding such development wherever there is a practicable alternative, as required by Executive Order 11988 and Executive Order 13690.[63] In addition, agencies should take into account their ongoing efforts to incorporate environmental justice principles into their programs, policies, and activities, including the environmental justice strategies required by Executive Order 12898, as amended, and consider whether the effects of climate change in association with the effects of the proposed action may result in a disproportionate effect on minority and low income communities.[64] Agencies also may consider co-benefits of the proposed action, alternatives, and potential mitigation measures for human health, economic and social stability, ecosystem services, or other benefit that increases climate change preparedness or resilience. Individual agency adaptation plans and interagency adaptation strategies, such as agency Climate Adaptation Plans, the National Fish, Wildlife and Plants Climate Adaptation Strategy, and the National Action Plan: Priorities for Managing Freshwater

for Heads of Federal Departments and Agencies, *Improving the Process for Preparing Efficient and Timely Environmental Reviews under the National Environmental Policy Act*, 77 Fed. Reg. 14473 (Mar. 12, 2012), *available at* https://ceq.doe.gov/current_developments/docs/Improving_NEPA_Efficiencies_06Mar2012.pdf.

[63] *See* Exec. Order No. 11988, "Floodplain Management," 42 Fed. Reg. 26951 (May 24, 1977), *available at* http://www.archives.gov/federal-register/codification/executive-order/11988.html; Exec. Order No. 13690, *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*, 80 Fed. Reg. 6425 (Jan. 30, 2015), *available at* https://www.gpo.gov/fdsys/pkg/FR-2015-02-04/pdf/2015-02379.pdf.

[64] *See* Exec. Order No. 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, 59 Fed. Reg. 7629 (Feb. 16, 1994), *available at* https://ceq.doe.gov/nepa/regs/eos/ii-5.pdf; CEQ, *Environmental Justice Guidance Under the National Environmental Policy Act* (Dec. 1997), *available at* http://ceq.doe.gov/nepa/regs/ej/justice.pdf.

Resources in a Changing Climate, provide other good examples of the type of relevant and useful information that can be considered.[65]

Climate change effects on the environment and on the proposed project should be considered in the analysis of a project considered vulnerable to the effects of climate change such as increasing sea level, drought, high intensity precipitation events, increased fire risk, or ecological change. In such cases, a NEPA review will provide relevant information that agencies can use to consider in the initial project design, as well as alternatives with preferable overall environmental outcomes and improved resilience to climate impacts. For example, an agency considering a proposed long-term development of transportation infrastructure on a coastal barrier island should take into account climate change effects on the environment and, as applicable, consequences of rebuilding where sea level rise and more intense storms will shorten the projected life of the project and change its effects on the environment.[66] Given the length of time involved in present sea level projections, such considerations typically will not be relevant to short-term actions with short-term effects.

In addition, the particular impacts of climate change on vulnerable communities may be considered in the design of the action or the selection among alternatives to

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[65] *See* http://sustainability.performance.gov for agency sustainability plans, which contain agency adaptation plans. *See also* http://www.wildlifeadaptationstrategy.gov; http://www.whitehouse.gov/sites/default/files/microsites/ceq/2011_national_action_plan.pdf; and https://www.epa.gov/greeningepa/climate-change-adaptation-plans

[66] *See* U.S. Department of Transportation, Gulf Coast Study, Phase 2, *Assessing Transportation Vulnerability to Climate Change Synthesis of Lessons Learned and Methods Applied*, FHWA-HEP-15-007 (Oct. 2014) (focusing on the Mobile, Alabama region), *available at* http://www.fhwa.dot.gov/environment/climate_change/adaptation/ongoing_and_current_research/gulf_coast_study/phase2_task6/fhwahep15007.pdf; U.S. Climate Change Science Program, Synthesis and Assessment Product 4.7, Impacts of Climate Change and Variability on Transportation Systems and Infrastructure: Gulf Coast Study, Phase I (Mar. 2008) (focusing on a regional scale in the central Gulf Coast), *available at* https://downloads.globalchange.gov/sap/sap4-7/sap4-7-final-all.pdf. Information about the Gulf Coast Study is *available at* *http //www.fhwa.dot.gov/environment/climate_change/adaptation/ongoing_and_current_research/gulf_coast_study*. *See also* Third National Climate Assessment, Chapter 28, "Adaptation," at 675 (noting that Federal agencies in particular can facilitate climate adaptation by "ensuring the establishment of federal policies that allow for "flexible" adaptation efforts and take steps to avoid unintended consequences"), *available at* http://nca2014.globalchange.gov/report/response-strategies/adaptation#intro-section-2.

assess the impact, and potential for disproportionate impacts, on those communities.[67] For example, chemical facilities located near the coastline could have increased risk of spills or leakages due to sea level rise or increased storm surges, putting local communities and environmental resources at greater risk. Increased resilience could minimize such potential future effects. Finally, considering climate change preparedness and resilience can help ensure that agencies evaluate the potential for generating additional GHGs if a project has to be replaced, repaired, or modified, and minimize the risk of expending additional time and funds in the future.

C. Special Considerations for Biogenic Sources of Carbon

With regard to biogenic GHG emissions from land management actions – such as prescribed burning, timber stand improvements, fuel load reductions, scheduled harvesting, and livestock grazing – it is important to recognize that these land management actions involve GHG emissions and carbon sequestration that operate within the global carbon and nitrogen cycle, which may be affected by those actions. Similarly, some water management practices have GHG emission consequences (e.g., reservoir management practices can reduce methane releases, wetlands management practices can enhance carbon sequestration, and water conservation can improve energy efficiency).

Notably, it is possible that the net effect of ecosystem restoration actions resulting in short-term biogenic emissions may lead to long-term reductions of atmospheric GHG concentrations through increases in carbon stocks or reduced risks of future emissions. In the land and resource management context, how a proposed action affects a net carbon sink or source will depend on multiple factors such as the climatic region, the distribution

[67] For an example, *see* https://www.blm.gov/epl-front-office/projects/nepa/5251/42462/45213/NPR-A_FINAL_ROD_2-21-13.pdf.

of carbon across carbon pools in the project area, and the ongoing activities and trends. In addressing biogenic GHG emissions, resource management agencies should include a comparison of estimated net GHG emissions and carbon stock changes that are projected to occur with and without implementation of proposed land or resource management actions.[68] This analysis should take into account the GHG emissions, carbon sequestration potential, and the changes in carbon stocks that are relevant to decision making in light of the proposed actions and timeframes under consideration.

One example of agencies dealing with biogenic emissions and carbon sequestration arises when agencies consider proposed vegetation management practices that affect the risk of wildfire, insect and disease outbreak, or other disturbance. The public and the decision maker may benefit from consideration of the influence of a vegetation management action that affects the risk of wildfire on net GHG emissions and carbon stock changes. NEPA reviews should consider whether to include a comparison of net GHG emissions and carbon stock changes that are anticipated to occur, with and without implementation of the proposed vegetation management practice, to provide information that is useful to the decision maker and the public to distinguish between alternatives. The analysis would take into account the estimated GHG emissions (biogenic and fossil), carbon sequestration potential, and the net change in carbon stocks relevant in light of the proposed actions and timeframes under consideration. In such cases the agency should describe the basis for estimates used to project the probability or likelihood of occurrence or changes in the effects or severity of wildfire. Where such

[68] One example of a tool for such calculations is the Carbon On Line Estimator (COLE), which uses data based on USDA Forest Service Forest Inventory & Analysis and Resource Planning Assessment data and other ecological data. COLE began as a collaboration between the National Council for Air and Stream Improvement, Inc. (NCASI) and USDA Forest Service, Northern Research Station. It currently is maintained by NCASI. It is available at http://www.fs.usda.gov/ccrc/tools/cole.

tools, methodologies, or data are not yet available, the agency should provide a qualitative analysis and its rationale for determining that the quantitative analysis is not warranted. As with any other analysis, the rule of reason and proportionality should be applied to determine the extent of the analysis.

CEQ acknowledges that Federal land and resource management agencies are developing agency-specific principles and guidance for considering biological carbon in management and planning decisions.[69] Such guidance is expected to address the importance of considering biogenic carbon fluxes and storage within the context of other management objectives and ecosystem service goals, and integrating carbon considerations as part of a balanced and comprehensive program of sustainable management, climate change mitigation, and climate change adaptation.

IV. TRADITIONAL NEPA TOOLS AND PRACTICES

A. Scoping and Framing the NEPA Review

To effectuate integrated decision making, avoid duplication, and focus the NEPA review, the CEQ Regulations provide for scoping.[70] In scoping, the agency determines the issues that the NEPA review will address and identifies the impacts related to the proposed action that the analyses will consider.[71] An agency can use the scoping process to help it determine whether analysis is relevant and, if so, the extent of analysis

[69] *See* Council on Climate Change Preparedness and Resilience, *Priority Agenda Enhancing the Climate Resilience of America's Natural Resources*, at 52 (Oct. 2014), *available at* http://www.whitehouse.gov/sites/default/files/docs/enhancing_climate_resilience_of_americas_natural_resources.pdf.
[70] *See* 40 CFR 1501.7 ("There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. This process shall be termed scoping."); *see also* CEQ Memorandum for Heads of Federal Departments and Agencies, *Improving the Process for Preparing Efficient and Timely Environmental Reviews under the National Environmental Policy Act*, March 6, 2012, *available at* https://ceq.doe.gov/current_developments/docs/Improving_NEPA_Efficiencies_06Mar2012.pdf (the CEQ Regulations explicitly require scoping for preparing an EIS, however, agencies can also take advantage of scoping whenever preparing an EA).
[71] *See* 40 CFR 1500.4(b), 1500.4(g), 1501.7.

appropriate for a proposed action.[72] When scoping for the climate change issues associated with the proposed agency action, the nature, location, timeframe, and type of the proposed action and the extent of its effects will help determine the degree to which to consider climate projections, including whether climate change considerations warrant emphasis, detailed analysis, and disclosure.

Consistent with this guidance, agencies may develop their own agency-specific practices and guidance for framing the NEPA review. Grounded on the principles of proportionality and the rule of reason, such aids can help an agency determine the extent to which an analysis of GHG emissions and climate change impacts should be explored in the decision-making process and will assist in the analysis of the no action and proposed alternatives and mitigation.[73] The agency should explain such a framing process and its application to the proposed action to the decision makers and the public during the NEPA review and in the EA or EIS document.

B. Frame of Reference

When discussing GHG emissions, as for all environmental impacts, it can be helpful to provide the decision maker and the public with a recognizable frame of reference for comparing alternatives and mitigation measures. Agencies should discuss relevant approved federal, regional, state, tribal, or local plans, policies, or laws for GHG emission reductions or climate adaptation to make clear whether a proposed project's

[72] *See* 40 CFR 1501.7 (The agency preparing the NEPA analysis must use the scoping process to, among other things, determine the scope and identify the significant issues to be analyzed in depth) and CEQ, *Memorandum for General Counsels, NEPA Liaisons, and Participants in Scoping*, April 30, 1981, *available at* https://ceq.doe.gov/nepa/regs/scope/scoping.htm.

[73] *See, e.g.,* Matthew P. Thompson, Bruce G. Marcot, Frank R. Thompson, III, Steven McNulty, Larry A. Fisher, Michael C. Runge, David Cleaves, and Monica Tomosy, *The Science of Decisionmaking Applications for Sustainable Forest and Grassland Management in the National Forest System* (2013), *available at* http://www.fs.fed.us/rm/pubs_other/rmrs_2013_thompson_m004.pdf; U.S. Forest Service Comparative Risk Assessment Framework And Tools, *available at* www.fs.fed.us/psw/topics/fire_science/craft/craft; and Julien Martin, Michael C. Runge, James D. Nichols, Bruce C. Lubow, and William L. Kendall, *Structured decision making as a conceptual framework to identify thresholds for conservation and management* (2009), Ecological Applications 19:1079–1090, *available at* http://www.esajournals.org/doi/abs/10.1890/08-0255.1.

GHG emissions are consistent with such plans or laws.[74] For example, the Bureau of Land Management has discussed how agency actions in California, especially joint projects with the State, may or may not facilitate California reaching its emission reduction goals under the State's Assembly Bill 32 (Global Warming Solutions Act).[75] This approach helps frame the policy context for the agency decision based on its NEPA review.

C. Incorporation by Reference

Incorporation by reference is of great value in considering GHG emissions or where an agency is considering the implications of climate change for the proposed action and its environmental effects. Agencies should identify situations where prior studies or NEPA analyses are likely to cover emissions or adaptation issues, in whole or in part. When larger scale analyses have considered climate change impacts and GHG emissions, calculating GHG emissions and carbon stocks for a specific action may provide only limited information beyond the information already collected and considered in the larger scale analyses. The NEPA reviews for a specific action can incorporate by reference earlier programmatic studies or information such as management plans, inventories, assessments, and research that consider potential changes in carbon stocks, as well as any relevant programmatic NEPA reviews.[76]

Accordingly, agencies should use the scoping process to consider whether they should incorporate by reference GHG analyses from other programmatic studies, action

[74] *See* 40 CFR 1502.16(c), 1506.2(d) (where an inconsistency exists, agencies should describe the extent to which the agency will reconcile its proposed action with the plan or law). *See also* Exec. Order No. 13693, 80 Fed. Reg. 15869 (Mar. 25, 2015) (establishing GHG emission and related goals for agency facilities and operations. Scope 1, 2, and 3 emissions are typically separate and distinct from analyses and information used in an EA or EIS.).
[75] *See*, *e.g.*, U.S. Bureau of Land Management, Desert Renewable Energy Conservation Plan Proposed Land Use Plan Amendment and Final Environmental Impact Statement, Vol. I, § I.3.3.2, at 12, *available at* http://drecp.org/finaldrecp/.
[76] *See* 40 CFR 1502.5, 1502.21.

specific NEPA reviews, or programmatic NEPA reviews to avoid duplication of effort. Furthermore, agencies should engage other agencies and stakeholders with expertise or an interest in related actions to participate in the scoping process to identify relevant GHG and adaptation analyses from other actions or programmatic NEPA documents.

D. Using Available Information

Agencies should make decisions using current scientific information and methodologies. CEQ does not expect agencies to fund and conduct original climate change research to support their NEPA analyses or for agencies to require project proponents to do so. Agencies should exercise their discretion to select and use the tools, methodologies, and scientific and research information that are of high quality and available to assess the impacts.[77]

Agencies should be aware of the ongoing efforts to address the impacts of climate change on human health and vulnerable communities.[78] Certain groups, including children, the elderly, and the poor, are more vulnerable to climate-related health effects, and may face barriers to engaging on issues that disproportionately affect them. CEQ recommends that agencies periodically engage their environmental justice experts, and the Federal Interagency Working Group on Environmental Justice, [79] to identify approaches to avoid or minimize impacts that may have disproportionately high and

[77] *See* 40 CFR 1502.24 (requiring agencies to ensure the professional and scientific integrity of the discussions and analyses in environmental impact statements).
[78] USGCRP, *The Impacts of Climate Change on Human Health in the United States A Scientific Assessment* (Apr. 2016), *available at* https://health2016.globalchange.gov/downloads.
[79] For more information on the Federal Interagency Working Group on Environmental Justice co-chaired by EPA and CEQ, *see* http://www.epa.gov/environmentaljustice/interagency/index.html.

adverse human health or environmental effects on minority and low-income populations.[80]

E. Programmatic or Broad-Based Studies and NEPA Reviews

Agency decisions can address different geographic scales that can range from the programmatic or landscape level to the site- or project-specific level. Agencies sometimes conduct analyses or studies that are not NEPA reviews at the national level or other broad scale level (e.g., landscape, regional, or watershed) to assess the status of one or more resources or to determine trends in changing environmental conditions.[81] In the context of long-range energy, transportation, and resource management strategies an agency may decide that it would be useful and efficient to provide an aggregate analysis of GHG emissions or climate change effects in a programmatic analysis and then incorporate by reference that analysis into future NEPA reviews.

A tiered, analytical decision-making approach using a programmatic NEPA review is used for many types of Federal actions[82] and can be particularly relevant to addressing proposed land, aquatic, and other resource management plans. Under such an approach, an agency conducts a broad-scale programmatic NEPA analysis for decisions such as establishing or revising USDA Forest Service land management plans, Bureau of Land Management resource management plans, or Natural Resources Conservation Service conservation programs. Subsequent NEPA analyses for proposed site-specific

[80] *President's Memorandum for the Heads of All Departments and Agencies, Executive Order on Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (Feb. 11, 1994), *available at* https://ceq.doe.gov/nepa/regs/eos/ii-5.pdf; CEQ, *Environmental Justice Guidance Under the National Environmental Policy Act*, *available at* https://ceq.doe.gov/nepa/regs/ej/justice.pdf.

[81] Such a programmatic study is distinct from a programmatic NEPA review which is appropriate when the action under consideration is itself subject to NEPA requirements. *See* CEQ, *Memorandum for Heads of Federal Departments and Agencies, Effective Use of Programmatic NEPA Reviews*, Dec. 18, 2014, § I(A), p. 9, *available at* https://www.whitehouse.gov/sites/default/files/docs/effective_use_of_programmatic_nepa_reviews_final_dec2014_searchable.pdf (discussing non-NEPA types of programmatic analyses such as data collection, assessments, and research, which previous NEPA guidance described as joint inventories or planning studies).

[82] *See* 40 CFR 1502.20, 1508.28. A programmatic NEPA review may be appropriate when a decision is being made that is subject to NEPA, such as establishing formal plans, programs, and policies, and when considering a suite of similar projects.

decisions – such as proposed actions that implement land, aquatic, and other resource management plans – may be tiered from the broader programmatic analysis, drawing upon its basic framework analysis to avoid repeating analytical efforts for each tiered decision. Examples of project- or site-specific actions that may benefit from being able to tier to a programmatic NEPA review include: constructing transmission lines; conducting prescribed burns; approving grazing leases; granting rights-of-way; issuing leases for oil and gas drilling; authorizing construction of wind, solar or geothermal projects; and approving hard rock mineral extraction.

A programmatic NEPA review may also serve as an efficient mechanism in which to assess Federal agency efforts to adopt broad-scale sustainable practices for energy efficiency, GHG emissions avoidance and emissions reduction measures, petroleum product use reduction, and renewable energy use, as well as other sustainability practices.[83] While broad department- or agency-wide goals may be of a far larger scale than a particular program, policy, or proposed action, an analysis that informs how a particular action affects that broader goal can be of value.

F. Monetizing Costs and Benefits

NEPA does not require monetizing costs and benefits. Furthermore, the weighing of the merits and drawbacks of the various alternatives need not be displayed using a monetary cost-benefit analysis and should not be when there are important qualitative considerations.[84] When an agency determines that a monetized assessment of the impacts of greenhouse gas emissions or a monetary cost-benefit analysis is appropriate and

[83] *See* Exec. Order No. 13693, 80 Fed. Reg. 15869 (Mar. 25, 2015).
[84] *See* 40 CFR 1502.23.

relevant to the choice among different alternatives being considered, such analysis may be incorporated by reference[85] or appended to the NEPA document as an aid in evaluating the environmental consequences.[86] For example, a rulemaking could have useful information for the NEPA review in an associated regulatory impact analysis which could be incorporated by reference.[87] When using a monetary cost-benefit analysis, just as with tools to quantify emissions, the agency should disclose the assumptions, alternative inputs, and levels of uncertainty associated with such analysis. Finally, if an agency chooses to monetize some but not all impacts of an action, the agency providing this additional information should explain its rationale for doing so.[88]

V. CONCLUSION AND EFFECTIVE DATE

Agencies should apply this guidance to all new proposed agency actions when a NEPA review is initiated. Agencies should exercise judgment when considering whether to apply this guidance to the extent practicable to an on-going NEPA process. CEQ does not expect agencies to apply this guidance to concluded NEPA reviews and actions for

[85] *See* 40 CFR 1502.21 (material may be cited if it is reasonably available for inspection by potentially interested persons within the time allowed for public review and comment).

[86] When conducting a cost-benefit analysis, determining an appropriate method for preparing a cost-benefit analysis is a decision left to the agency's discretion, taking into account established practices for cost-benefit analysis with strong theoretical underpinnings (for example, see OMB Circular A-4 and references therein). For example, the Federal social cost of carbon (SCC) estimates the marginal damages associated with an increase in carbon dioxide emissions in a given year. Developed through an interagency process committed to ensuring that the SCC estimates reflect the best available science and methodologies and used to assess the social benefits of reducing carbon dioxide emissions across alternatives in rulemakings, it provides a harmonized, interagency metric that can give decision makers and the public useful information for their NEPA review. For current Federal estimates, *see* Interagency Working Group on Social Cost of Carbon, United States Government, *Technical Support Document Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866* (revised July 2015), *available at* https://www.whitehouse.gov/omb/oira/social-cost-of-carbon.

[87] For example, the regulatory impact analysis was used as a source of information and aligned with the NEPA review for Corporate Average Fuel Economy (CAFÉ) standards, *see* National Highway Traffic Safety Administration, Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2017-2025, Final Environmental Impact Statement, Docket No. NHTSA-2011-0056 (July 2012), § 5.3.2, *available at* http://www.nhtsa.gov/Laws+&+Regulations/CAFE+-+Fuel+Economy/Environmental+Impact+Statement+for+CAFE+Standards,+2017-2025.

[88] For example, the information may be responsive to public comments or useful to the decision maker in further distinguishing between alternatives and mitigation measures. In all cases, the agency should ensure that its consideration of the information and other factors relevant to its decision is consistent with applicable statutory or other authorities, including requirements for the use of cost-benefit analysis.

which a final EIS or EA has been issued. Agencies should consider applying this guidance to projects in the EIS or EA preparation stage if this would inform the consideration of differences between alternatives or address comments raised through the public comment process with sufficient scientific basis that suggest the environmental analysis would be incomplete without application of the guidance, and the additional time and resources needed would be proportionate to the value of the information included.

# # #

EXHIBIT 2

to North Coast Rivers Alliance, et al.'s
Dec. 11, 2018 Comment Letter

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11.203.01

October 30, 2015

Via Email and U.S. Postal Service

BDCP/WaterFix Comments
P.O. Box 1919
Sacramento, CA 95812
Email: BDCPComments@icfi.com

Re: Comments of North Coast Rivers Alliance, Winnemem Wintu Tribe, San Francisco Crab Boat Owners Association, Inc., Pacific Coast Federation of Fishermen's Associations, and the Institute for Fisheries Resources on the Partially Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement for the Bay Delta Conservation Plan, SCH Number: 2008032062

To Whom It May Concern:

The North Coast Rivers Alliance, Winnemem Wintu Tribe, San Francisco Crab Boat Owners Association, Inc., Pacific Coast Federation of Fishermen's Associations, and the Institute for Fisheries Resources (collectively "Conservation Groups") hereby comment on the Partially Recirculated Draft Environmental Impact Report/ Supplemental Draft Environmental Impact Statement ("RDEIR/SDEIS") for the Bay Delta Conservation Plan prepared for the California Department of Water Resources ("DWR"), the United States Bureau of Reclamation ("Reclamation"), the National Marine Fisheries Service ("NMFS"), and the U.S. Fish and Wildlife Service ("USFWS"). The RDEIR/SDEIS was necessitated by substantial changes in the Draft Bay Delta Conservation Plan ("BDCP"), and fatal omissions and deficiencies in the prior Draft Environmental Impact Report and Environmental Impact Statement ("DEIR/DEIS").

Many of the inadequacies of the DEIR/DEIS that were addressed in Conservation Groups' July 29, 2014, comment letter remain unresolved in the RDEIR/SDEIS. Examples include the RDEIR/SDEIS' continued failure to address (1) public trust resources, (2) the reasonably foreseeable future expansion in intake capacity, and (3) a reasonable range of alternatives. The RDEIR/SDEIS substantially worsens the organizational deficiencies of the DEIR/DEIS, and thus frustrates informed public review and comment. For convenience, Conservation Groups attach their previous comment letter as **Exhibit 1**.

As discussed below, the RDEIR/SDEIS continues to violate the California Environmental Quality Act ("CEQA"), California Public Resources Code sections 21000 *et seq.*, and the

National Environmental Policy Act ("NEPA"), 42 U.S.C. sections 4321 *et seq*. Accordingly, this inadequate environmental document must again be significantly revised to correct these deficiencies. Until these violations of CEQA and NEPA are rectified, the BDCP may not be considered for approval.

INTRODUCTION

California's growing and improvident dependence on cheap, publicly-subsidized water – despite climate change's inexorable reduction in that supply – threatens to inflict on the Delta the dire consequences of the public's increasingly destructive behavior to get their WaterFix. Alternative 4A – the formal name for the WaterFix, which is the new preferred alternative in the RDEIR/SDEIS – will *remove* up to 9,000 cubic feet per second ("cfs") of water from the Sacramento River before it can flow through the Sacramento and San Joaquin Delta ecosystem, jeopardizing the ecological well-being of that system in order to guarantee water deliveries for agricultural interests in the Central Valley through the Central Valley Project ("CVP") and both urban and agricultural water purveyors through the State Water Project ("SWP"). That amounts to over 6,515,700 acre feet per year (afy),[1] diverted upstream of the Delta and delivered straight to the CVP and SWP.[2] The most immediate and obvious result would be the movement of saline waters into the Delta, irreparably harming its water quality and dependent fish and wildlife.

The "heart of CEQA" is the environmental impact report. *Citizens for Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564. "The EIR, with all its specificity and complexity, is the mechanism prescribed by CEQA to force informed decision making and to expose the decision making process to public scrutiny." *California Native Plant Society v. City of Santa Cruz* ("*California Native Plant Society*") (2009) 177 Cal.App.4th 957, 978 (quoting *Planning & Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 910). Similarly, the environmental impact statement "serves NEPA's 'action-forcing' purpose" by ensuring that the agency "will have available, and carefully consider, detailed information concerning significant environmental impacts" and "guarantee[ing] that the relevant information will be made available to the larger audience." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

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[1] 9000 cubic feet per second x 31,536,000 seconds per year / 43,560 cubic feet per acre foot = 6,515,702.479 acre feet per year.

[2] As discussed in Conservation Groups' July 29, 2014, comment letter, 9,000 cfs is the combined *intake* capacity of Alternative 4A, not the capacity of the tunnels themselves, which is considerably greater and increases the likelihood that south of Delta users will demand additional deliveries in the future.

Here, however, the RDEIR/SDEIS' analysis of the BDCP fails to foster informed decisionmaking or to expose the decisionmaking process to the public. *California Native Plant Society*, 177 Cal.App.4th at 978. CEQA and NEPA require more.

I. The RDEIR/SDEIS Improperly Segments Analysis

CEQA mandates that "environmental considerations do not become submerged by chopping a large project into many little ones — each with a minimal potential impact on the environment — which cumulatively may have disastrous consequences." *Bozung v, Local Agency Formation Commission*, 13 Cal.3d 263, 283-284 (1975). Thus, agencies must study the "whole of an action," and not segment or piecemeal environmental review. *See* CEQA Guidelines § 15378(a), (c). Similarly, NEPA requires that when actions are "interdependent parts of a larger action and depend on the larger action for their justification" they must be studied together in a single environmental document. 40 C.F.R. § 1508.25(a)(1); *Thomas v. Peterson* 757 F.2d 754, 758-759 (9th Cir. 1985).

Here, instead of studying all of their interdependent actions together, Reclamation and DWR have improperly separated their analysis of the BDCP from Reclamation's incorporation of reasonable and prudent alternatives ("RPAs") into its coordinated Long Term Operation of the CVP and SWP ("Draft LTO EIS"). The Draft LTO EIS substantially overlapped with the RDEIR/SDEIS in geographic scope, purpose, and objectives. *Compare* RDEIR/SDEIS 1.8[3] *with* Draft LTO EIS 2-1 to 2-2. The RPAs addressed in the Draft LTO EIS are the specific parameters that NMFS and USFWS have set to prevent the extinction of sensitive species. Instead of addressing these topics in a unified manner, however, Reclamation has improperly separated the Draft LTO EIS into its own project.

Further, the RDEIR/SDEIS' Alternatives 4A, 2D and 5A likewise improperly segment environmental review because they remove substantial habitat restoration elements, the so-called EcoRestore, from the Project. *See, e.g.*, RDEIR/SDEIS 5-6. This segmentation violates CEQA's demand for unified and comprehensive environmental review:

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[3] The first revised project objective is to:

> Address adverse effects to state and federally listed species related to:
> - The operation of existing SWP Delta facilities and construction and operation of facilities for the movement of water entering the Delta from the Sacramento Valley watershed to the existing SWP and CVP pumping plants located in the southern Delta.
> - The implementation of actions to improve SWP and/or CVP conveyance that have the potential to result in take of species that are listed under the [Endangered Species Act] and [California Endangered Species Act].

RDEIR/SDEIS 1.8.

> Theoretical independence is not a good reason for segmenting the environmental analysis of the two matters. Doing so runs the risk that some environmental impacts produced by the way the two matters combine or interact might not be analyzed in the separate environmental reviews. Furthermore, if the two matters are analyzed in sequence . . . and the combined or interactive environmental effects are not fully recognized until the review of the second matter, the opportunity to implement effective mitigation measures as part of the first matter may be lost. This could result in mitigation measures being adopted in the second matter that are less effective than what would have been adopted if the matters had been analyzed as a single project.

Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora (2007) 155 Cal.App.4th 1214, 1230. While the lead agencies indicate that the EcoRestore elements will be implemented separately and subject to separate environmental review, this segmented review subverts CEQA's – and NEPA's – purposes.

II. The RDEIR/SDEIS Project Description Is Inadequate Under Both CEQA and NEPA

An adequate project description is an essential starting point for analysis of a project's environmental impacts, and all environmental impact reports and statements must provide one. 14 California Code of Regulations ["CEQA Guidelines"] § 15124; 42 U.S.C. §§ 4332(2)(C), 4332(2)(E); 40 C.F.R. §§ 1502.1, 1502.2, 1502.10, 1502.14. "An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." *County of Inyo v. City of Los Angeles* ("*County of Inyo*") (1977) 71 Cal.App.3d 185, 193. By contrast,

> [a] curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefits against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance.

Id. at 192-193. This is also true for any EIS prepared under NEPA. 40 C.F.R. § 1502.4(a) ("[a]gencies shall [*inter alia*] make sure the proposal which is the subject of the environmental impact statement is properly defined"); *Oregon Environmental Council v. Kunzman*, 817 F.2d 484, 493-494 (9th Cir. 1987); *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3d 818, 830, n. 8 (citing federal cases).

Rather than "accurate, stable and finite," the RDEIR/SDEIS' project description remains so "distorted" that it precludes a full and accurate analysis of the project's environmental impacts and identification of a range of reasonable alternatives. Indeed, the RDEIR/SDEIS does not even

identify – let alone describe and analyze – any specific "proposed project." DEIR/DEIS 3-1 to 3-3; RDEIR/SDEIS ES-14 to ES-21, 1-4 to 1-5, 2-21 to 2-22. The RDEIR/SDEIS considers numerous alternatives, including new Alternatives 4A, 2D, and 5A, to the BDCP water conveyance facilities, but does not describe a proposed action against which it can compare alternatives and the effectiveness of mitigation measures. Consequently, it fails to provide the project description and comparative analysis of alternatives required under CEQA and NEPA. Public Resources Code §§ 21061, 21100(b); CEQA Guidelines §§ 15124, 15126, 15126.6, 15362, 15378; *County of Inyo*, 71 Cal.App.3d at 193; 42 U.S.C. §§ 4332(2)(C), 4332(2)(E); 40 C.F.R. §§ 1502.1, 1502.2, 1502.10, 1502.14 (the EIS must provide "a clear basis for choice among options by the decisionmaker and the public"); *Te-Moak Tribe of Western Shoshone of Nevada v. U.S. Department of Interior*, 608 F.3d 592, 601 (9th Cir. 2010) (EIS must "permit informed public comment on proposed action and any choices or alternatives that might be pursued with less environmental harm").

Because the RDEIR/SDEIS never identifies a proposed project, the lead agencies have fundamentally misapplied both CEQA and NEPA. Public Resources Code section 21100(b) *requires* that the RDEIR/SDEIS "include a detailed statement setting forth . . .: (1) All significant effects on the environment of the *proposed project* . . . [and] (4) *Alternatives to the proposed project*." Public Resources Code § 21100(b) (emphasis added); *see also* CEQA Guidelines §§ 15126, 15126.6. Similarly, NEPA requires that federal agencies provide a "detailed statement" on the "environmental impacts of the *proposed action*," and "alternatives to the *proposed action*." 42 U.S.C. §§ 4332(2)(C); 40 C.F.R. § 1502.14.

Without an identified proposed action the RDEIR/SDEIS cannot adequately analyze the significant impacts of, or consider alternatives to, that project. "[T]he range of alternatives that an EIR must study in detail *is defined in relation to* the adverse environmental impacts *of the proposed project." In re Bay Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1167; 40 C.F.R. § 1502.14 (same for NEPA). The RDEIR/SDEIS has made it utterly impossible to define alternatives in relation to the proposed project since there is none.

This omission is especially egregious given CEQA's demand that proposed projects be analyzed in greater detail than potential alternatives, and that the alternatives are intended to lessen the significant impacts of the proposed project. CEQA Guidelines §§ 15064, 15124, 15126, 15126.2, 15126.4, 15126.6.[4] The RDEIR/SDEIS' analysis here is circular, making the proposed project and the alternatives one in the same and precluding informed decisionmaking.

[4] NEPA similarly calls on the RDEIR/SDEIS to "inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1.

The RDEIR/SDEIS' failure to identify and describe the proposed project is a fatal flaw that undermines the entirety of its discussion and analysis. Without a proposed project, the RDEIR/SDEIS cannot identify the significant impacts of that project nor alternatives that would reduce those impacts.

Furthermore, the RDEIR/SDEIS still includes project objectives that are so unreasonably narrow that they preclude any consideration of a reduced delivery alternative as described below. As directed by the CEQA Guidelines, the project description "shall contain" a "statement of objectives sought by the proposed project[, which] will help the Lead Agency develop a reasonable range of alternatives to evaluate in the EIR . . . . The statement of objectives should include the *underlying purpose* of the project." Guidelines § 15124(b) (emphasis added). Similarly under NEPA, because a project's purpose and need statement "dictates the range of 'reasonable' alternatives," the agency may not frame the purpose and need statement narrowly "to avoid the requirement that relevant alternatives be considered." *City of Carmel-by-the-Sea v. United States Department of Transportation* (9th Cir. 1997) 123 F.3d 1142, 1155 (first quote); *National Parks & Conservation Association v. U.S. Bureau of Land Management* ("*NPCA v. BLM*") (9th Cir. 2010) 606 F.3d 1058, 1070 (second quote).

"An agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality." *NPCA v. BLM*, 606 F.3d at 1070. Here, the RDEIR/SDEIS does just that. Consequently, it precludes any consideration of a reduced delivery alternative, and thereby undermines the basic purpose of both CEQA and NEPA: comparative analysis of a proposed action with less impactful alternatives.

III. The Range of Alternatives in the RDEIR/SDEIS Is Unreasonable

Under CEQA, an EIR must focus on alternatives that would lessen significant effects, even if they "would impede to some degree the attainment of the project objectives, or be more costly." Guidelines § 15126.6(b). Likewise, under NEPA, an EIS must "[r]igorously explore and objectively evaluate all reasonable alternatives" so that "reviewers may evaluate their comparative merits." *Id.* "The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1038 (9th Cir. 2008).

As with the DEIR/DEIS, the RDEIR/SDEIS fails to study a reasonable range of alternatives, including an alternative that significantly reduces deliveries. While the RDEIR/SDEIS adds Alternatives 4A, 2D and 5A, none of these so-called sub-Alternatives alter the conveyance quantities contemplated in the DEIR/DEIS. *See* RDEIR/SDEIS 4.1-1. Thus, these new alternatives have not remedied the deficiencies identified in Conservation Groups' July 29, 2014, comment letter at Section B, pages 4-7.

IV. The RDEIR/SDEIS Analysis of Impacts Is Inadequate

A. Analysis of Alternative 4A's Impacts Is Inadequate

1. Water

Alternative 4A will increase the amount of water delivered to CVP and SWP users south of the Delta. RDEIR/SDEIS 4.3.1-1 (Long-term, average and wet water years will have "increased Delta exports as compared to Existing Conditions"), 4.3.1-5 ("average annual total south of Delta CVP deliveries as compared to [the] No Action Alternative, would increase by about 5%"), 4.3.1-7 (average annual south of Delta SWP deliveries will either increase by approximately 16% or decrease by 4% depending on spring outflow requirements as compared to the No Action Alternative). This increase in deliveries will reduce the amount of water flowing through the Delta, as the water will be diverted into Alternative 4A's three intakes, conveyed past the Delta, and presented to the SWP and CVP intake pumps at a rate of 9,000 cfs.

Instead of clearly presenting this data, the RDEIR/SDEIS concludes that "Delta outflow under Alternative 4A would *likely* decease in winter and summer months, *or remain similar or increase in other months*, compared to the conditions without the project. RDEIR/SDEIS 4.2.1-2 (emphasis added). This vague and equivocal statement provides little useful information about the consequences of Project approval.

In a similarly obfuscatory fashion, the RDEIR/SDEIS's discussion of water transfer impacts states both that "Alternative 4A would *decrease* water transfer demand compared to existing conditions" and that "Alternative 4A would *increase* water transfer demand compared to existing conditions." RDEIR/SDEIS 4.3.1-9 (in discussion of "NEPA Effects" and "CEQA Conclusion," respectively) (emphasis added). It also claims that Alternative 4A would both "*decrease* conveyance capacity" and "*increase* conveyance capacity." *Id.* (emphasis added). These contradictory statements create confusion rather than provide clarity about the Project's impacts.

Further, these inconsistent claims fail to address – let alone resolve – the overarching problem that absent additional water to distribute to users, Alternative 4A will simply reprioritize agricultural demands south of the Delta over other users.

Under any interpretation, the RDEIR/SDEIS impermissibly downplays the significant impacts of Alternative 4A on water supply for beneficial uses in the Delta, both instream and out. It never clearly explains what will compensate for the missing water that would otherwise flow through the Delta, nor does it attempt to mitigate for this significant impact.

2. Biological Resources

As repeatedly acknowledged by the RDEIR/SDEIS, "the Delta is in a state of crisis." RDEIR/SDEIS ES-1, 1-1. Indeed, "[s]everal threatened and endangered fish species, including Delta smelt and winter-run Chinook salmon, have recently experienced the lowest population numbers in their recorded history." RDEIR/SDEIS ES-1. Furthermore, water supplies "have already decreased significantly in recent years, independent of the drought, due to regulatory actions by" multiple Federal and state agencies. *Id.* These unsustainable levels of diversions and discharges allowed by the SWP and CVP are destroying the Bay-Delta ecosystem. Rather than rectify this unfolding eco-catastrophe, the wrongly touted Alternative 4A would just make matters worse.

Seventeen species of fish endemic to the Delta have already gone extinct with only twelve indigenous species remaining. Critical habitat for the endangered Sacramento River winter run Chinook salmon, Central Valley steelhead and spring run Chinook, the Delta smelt, and the Southern Distinct Population Segment ("DPS") of the Northern American green sturgeon suffers progressively worsening degradation.[5] Alternative 4A includes three new North Delta water pumping and conveyance facilities, each with an "intake capacity" of 3,000 cubic feet per second ("cfs"), which could very well push these imperiled species to extinction.

As the situation in the Delta becomes more dire and fish populations continue their precipitous decline, the impacts of the continued long-term operation of the CVP and SWP become more severe.[6] For example, fishing yields for Chinook salmon have plummeted in recent

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[5] Winter run Chinook salmon were declared threatened under the federal Endangered Species Act ("ESA") in 1990 (55 Fed.Reg 46515), and then due to continuing population declines, declared endangered in 2005 (70 Fed.Reg 37160). Their critical habitat in the Sacramento River and its tributaries was designated in 1993. 58 Fed.Reg. 33212. Spring run Chinook salmon were declared threatened, and their critical habitat designated under the ESA in 2005. 70 Fed.Reg. 37160, 52488. Central Valley steelhead were declared threatened in 2000 (65 Fed.Reg. 52084) and their critical habitat was designated in 2005 (70 Fed.Reg 52488). The Southern DPS of North American green sturgeon was declared threatened in 2006 (71 Fed.Reg 17757) and its critical habitat was designated in 2008 (73 Fed.Red 52084). Delta smelt were declared endangered in 1993 (58 Fed.Reg. 12854) and their critical habitat was designated in 1994 (59 Fed.Reg. 65256).

[6] Phillip Reese and Ryan Sabalow, *Feds scramble to avoid another mass salmon die-off in the Sacramento River*, SACRAMENTO BEE (Sept. 5, 2015) (detailing some of the most recent challenges facing Chinook salmon), attached as **Exhibit 2** and also available at: http://www.sacbee.com/news/state/california/water-and-drought/article34197762.html#storylink=cpy

years.[7] Indeed, the 2014 commercial catch shrunk to 151,367 Chinook from 285,592 in the previous year. *Id.* At the tail end of the 2015 commercial season, preliminary yield numbers were only 96,878 Chinook. *Id.* Recreational yields for Chinook have likewise fallen, from 112,022 Chinook in 2013 to 65,936 in 2014. *Id.* As of August 31, 2015, this year's yield was only 25,541 Chinook. *Id.* New information regarding eggs, hatchlings and juvenile salmon only highlights these concerns. NMFS recently reported that "95 percent of the winter-run chinook eggs, hatchlings and juvenile salmon *died this year* in the [Sacramento] river."[8] This was the second year in a row that "most of the juvenile salmon died." *Id.* The effects of this rapid decline can also be seen in this year's juvenile fish count, which was "down 22 percent compared with last year, which was also a bad year." *Id.* This decline is especially disturbing given that in 2005 "officials counted *8.5 million* winter-run juveniles," but tallied only 217,489 this year. The ongoing drought plaguing the state will only exacerbate these potential impacts. If we fail to protect these species now, we may not have a chance in the future.

The RDEIR/SDEIS fails to remedy the inadequacies in the discussion of impacts to fish and other aquatic resources that Conservation Groups flagged in their previous comments. As a preliminary matter, the RDEIR/SDEIS makes it nearly impossible to identify the changes from the DEIR/DEIS. The RDEIR/SDEIS claims to include "excerpts of text that originally appeared in the [DEIR/DEIS], with underlining showing new language and strikeout showing eliminated text." RDEIR/SDEIS ES-11. However, this red-lined version fails to accurately reflect these changes, and neglects to identify significant new textual additions. *Compare* DEIR/DEIS 11-118 to 11-119 *with* RDEIR/SDEIS Appendix A 11-31 to 11-34; *compare also* DEIR/DEIS 11-121 *with* RDEIR/SDEIS Appendix A 11-34 (unidentified text edits), DEIR/DEIS 11-125 *with* RDEIR/SDEIS Appendix A 11-36 to 11-37 (unidentified heading and text edits); *see also, e.g.*, RDEIR/SDEIS Appendix A 11-31 to 11-56, 11-84 to 11-98, 11-114 to 11-382, 11-387 to 11-410 (all containing *no* red-lined edited text).

The failure to provide a clear distinction between the DEIR/DES and RDEIR/SDEIS forecloses informed decisionmaking and thwarts the purposes of CEQA and NEPA. NEPA directs that where an EIS is "so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion" prior to releasing a final EIS. 40

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[7] Pacific Fisheries Council, Status Report for the 2015 Ocean Salmon Fisheries off Washington, Oregon and California, Supplemental Informational Report 13 (Sept. 2015), attached as **Exhibit 3** and also available at: http://www.pcouncil.org/wp-content/uploads/2015/09/SUP_IR13_Salmon_Catch_Update_SEPT2015BB.pdf

[8] Fimrite, Peter, *Drought-Driven Salmon Deaths Could Have Far-Reaching Impact*, San Francisco Chronicle, October 29, 2015, attached hereto as **Exhibit 4**, and available at http://www.sfgate.com/bayarea/article/Drought-driven-salmon-deaths-could-have-6596901.php

C.F.R. § 1502.9. CEQA likewise forbids an EIR that is so deficient as to prevent meaningful public review and comment. Guidelines § 15088.5(a)(4); *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449 (agency's "failure to address loss of Cosumnes River stream flows in the draft EIR 'deprived the public . . . of meaningful participation'" in the CEQA process). The procedural failure here leaves the public with an RDEIR/SDEIS that "preclude[s] meaningful analysis." 40 C.F.R. § 1502.9.

Even more egregious is the RDEIR/SDEIS' failure to adequately analyze the impacts of Alternative 4A, and continued reduced flows, on imperiled fish species. As amply discussed in Conservation Groups' DEIR/DEIS comment letter attached hereto as **Exhibit 1**, the proposed reductions in freshwater flows in the Delta, the Sacramento River, and their associated sloughs would adversely modify designated critical habitat for at least five endangered and threatened species: the Sacramento River winter-run Chinook salmon, the Central Valley spring-run Chinook Salmon, Central Valley steelhead, the southern distinct population segment of North American green sturgeon, and the Delta smelt.

Both FWS and NMFS have found that continued operation of the CVP and SWP is likely to jeopardize the continued existence of the Delta smelt and other beleaguered fish species. NMFS, June 4, 2009, *Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project*; FWS, December 15, 2008, *Biological Opinion of the Coordinated Operations of the Central Valley Project and State Water Project*. Furthermore, the 2014 Recovery Plan for the Sacramento River winter-run Chinook salmon, the Central Valley spring-run Chinook salmon and the California Central Valley steelhead confirmed that "recovery" of these three listed salmonid species "would require that *no more populations are allowed to become extirpated* and that *habitat must be expanded*" *– not contracted –* "to allow for the establishment of additional populations." 2014 Recovery Plan at 4. Despite these known devastating threats, the RDEIR/SDEIS still pushes for increased unsustainable, fish-killing, water diversions via the proposed tunnels.

As discussed above, water that currently flows through the Sacramento River and sloughs to and through the Delta would be diverted, further reducing freshwater flows through the sloughs and Delta. These diversions would also likely necessitate changes in reservoir management in northern California, and as a result reduce flows in the Trinity, Sacramento, American, and Feather Rivers. With less water in the rivers and more water in the pipes of water exporters, the fish and the Delta ecosystem will suffer, while the wasteful and polluting practices of many of those who use the exported Delta water will be allowed to continue, if not expand.

There is a fundamental flaw to a plan that aims to restore ecosystems that have been degraded by freshwater diversions by building new infrastructure that will divert *even more* fresh water. Repeating past mistakes while hoping for a different outcome is the textbook definition of insanity.

3. Land Use and Agriculture

Diverting freshwater flows from the Delta will result in salt-water intrusion that will harm the historic agricultural uses in the Delta and, as a consequence, convert important farmland to non-agricultural resources. The RDEIR/SDEIS's discussion of this increased salinity improperly downplays the significance of this impact. The RDEIR/SDEIS admits that modeling for Alternative 4A shows an increase in instances where water quality objectives for salinity (i.e., electric conductivity) are not met, and admits that such an impact would harm agricultural beneficial uses of this water. RDEIR/SDEIS 4.3.10-2, 4.3.10-3, 14-17.

Yet rather than acknowledge that this impact needs to be avoided, the RDEIR/SDEIS retreats into obfuscation. It claims that the water quality objective is exceeded only because the modeling uses "a solution that is a simplified version of the very complex decision processes" that happen when there is not enough water to go around. RDEIR/SDEIS 4.3.10-2. This is nonsensical. Either the model is predictive, or it is not. Moreover, the RDEIR/SDEIS does not explain what would actually happen when "there is not enough water supply to meet all requirements." *Id.* Nor does it explain why the "complex decision" that is the direct consequence of these excessive diversions would not lead to the results predicted by the model. *Id.*

As a result, the RDEIR/SDEIS improperly downplays the significance of the increase in salinity on agriculture. While it admits that "[i]ncreased salinity levels suggest that a number of crops using this irrigation water may not be able to reach full yields . . .," it illogically concludes just the *opposite*: that "agricultural activities would be anticipated to continue on lands using these sources." RDEIR/SDEIS 14-19.

While the RDEIR/SDEIS properly concludes that Alternatives 4 and 4A would have significant and unmitigable impacts on agriculture, the underlying analysis nonetheless fails to account for the multi-faceted harms of increased salinity. Without an accurate accounting of the ecological damage caused by the preferred alternative, decisionmakers and the public will not fully comprehend the trade-offs that any approval would require.

4. Growth

Section 4.3 of the RDEIR/SDEIS correctly acknowledges that Alternative 4A's net increase in annual average CVP and SWP deliveries has the potential to induce growth, both in agricultural and urban settings. RDEIR/SDEIS 4.3.26-1 to 4.3.26-7. Yet the RDEIR/SDEIS incorrectly assumes that Alternative 4A is "unlikely to result in an increase of deliveries significant enough that it would foster additional growth in these [urban] areas." RDEIR/SDEIS 4.3.26-7. Further, Chapter 4 of the RDEIR/SDEIS fails to make clear that Alternative 4A's increase in water deliveries to CVP and SWP users would have unavoidable growth impacts. *Compare* RDEIR/SDEIS 4.3.26-1-7 *with* RDEIR/SDEIS Appendix A, 30-1 to 30-4 (discussions

of growth impacts for Alternative 4A, and changes to growth discussion for whole RDEIR/SDEIS, respectively).

5. Cumulative Impacts

The RDEIR/SDEIS does not include a cumulative impact discussion specific to Alternative 4A within Section 4.3, and instead scatters this information throughout Section 5's discussion of the potential cumulative impacts of all Alternatives. In Section 5, the RDEIR/SDEIS claims that Alternative 4A will not have a cumulatively considerable impact on migrating fish, even though it could reduce flows and flow temperatures are expected to increase. RDEIR/SDEIS 5-116. Yet the RDEIR/SDEIS relies upon release shifts from various reservoirs to prevent adverse impacts. *Id.* As noted above, the attempts to preserve cooler flows for salmon over the last two years have failed. The RDEIR/SDEIS does not address how Reclamation and DWR will be able to preserve cooler temperature flows in the future in ways they are unable to do so now. Reliance upon such undefined and wholly speculative shifts in release timing is insufficient mitigation to prevent this cumulatively considerable impact.

6. Mitigation Measures

The RDEIR/SDEIS relies upon a slew of "environmental commitments" and "resource restoration and performance principles" (capitalization altered), in addition to traditional mitigation measures, in its determinations that Alternative 4A will have no significant impacts on a host of resources. *See, e.g.*, RDEIR/SDEIS 4.3.8-19 (loss of valley/foothill riparian natural community), 4.3.8-35 (loss of vernal pool/alkali seasonal wetland complex), 4.3.8-94 to 4.3.8-101 (giant garter snake), RDEIR/SDEIS 4.3.8-296 to 4.3.8-301 (San Joaquin kit fox and American badger). While these measures are not called mitigation measures in the RDEIR/SDEIS, it is clear that Reclamation and DWR intend them to be CEQA mitigation measures to lessen otherwise significant impacts. RDEIR/SDEIS ES-18, 4.1-14.

But it does not appear that these vague commitments qualify as enforceable mitigation measures that would satisfy CEQA, absent additional information. Guidelines § 15126.4(a)(2) ("Mitigation measures must be fully enforceable"). Nor have the impacts to be mitigated even been specifically acknowledged to be significant. The RDEIR/SDEIS fails to identify and analyze the significance of these and similar impacts, and instead it impermissibly presumes that its claimed environmental commitments and resource restoration and performance principles will obviate these impacts. This deliberate attempt to obscure, and thereby ignore, these severe impacts violates CEQA. *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 658 (failure to discuss significance of impact before proposing a mitigation "subverts the purposes of CEQA by omitting material necessary to informed decision-making and informed public participation").

In some instances the RDEIR/SDEIS admits that in the absence of the proposed environmental commitments or resource restoration activities, impacts will be significant. RDEIR/SDEIS 4.3.8-99 & 4.3.8-100 (garter snake) 4.3.8-300 (San Joaquin kit fox and American badger). In order to prevent these significant impacts, all mitigation measures must be clearly enforceable. Guidelines § 15126.4(a)(2). Yet no assurance is provided that they will be, and in light of the abysmal failure of similar facile assurances to prevent ecological harm in the past, this failure is fatal.

C. The Other Alternatives Are Likewise Deficient

In addition to the above described deficiencies in the RDEIR/SDEIS, its discussion of the other Alternatives is likewise fatally flawed because there is no project description against which they can be compared. Moreover, all the Alternatives rely on similar speculative assumptions regarding the long-term impacts of water diversions on biological resources, water resources and agriculture. The RDEIR/SDEIS's confusing and incomplete presentation of information precludes thorough analysis as required by CEQA, and the hard look required by NEPA.

IV. Approval of the Project Will Violate the Endangered Species Act

By enacting the ESA, "Congress intended endangered species to be afforded the highest of priorities." *Tennessee Valley Authority v. Hill* (1978) 437 U.S. 153, 174. "The plain intent of Congress in enacting [the ESA] was to halt and reverse the trend toward species extinction, *whatever the cost*." *Id.* at 184 (emphasis added.) The ESA's goal is to ensure not only that species survive, but that their populations recover to the point that they can be removed from the endangered and threatened lists. *Alaska v. Lubchenko* (9th Cir. 2013) 723 F.3d 1043, 1054. Therefore, the ESA requires that federal agencies ensure that their actions, or actions that they fund or authorize, are "not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of [critical] habitat of such species." 16 U.S.C. § 1536(a)(2) (quote); *Pinchot Task Force v. U.S. Fish and Wildlife Service* (9th Cir. 2004) 378 F.3d 1059, 1076 ("existing or potential conservation measures outside of the critical habitat cannot properly be a substitute for the maintenance of critical habitat that is required by Section 7" of the ESA).

Unless it is authorized under either section 7 or section 10 of the ESA, any taking of a listed species is strictly prohibited. 16 U.S.C. § 1538(a)(1)(B). "Take" is defined broadly, including " to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." *Id.* at § 1532(19). 50 C.F.R. § 17.3 defines "harm" to include any act that actually kills or injures the species, including any death or injuries as a result of habitat modification or degradation that impairs essential behavioral patterns such as feeding, breeding, or sheltering. NMFS regulations include spawning and migrating as "essential behavioral patterns." 50 C.F.R. § 222.102.

Here, consultation with FWS and NMFS is incomplete. Therefore whether the proposed actions will result in jeopardy findings is unknown. RDEIR/SDEIS 1-15. Where an action will cause jeopardy to a species or adversely modify its habitat, FWS and NMFS *must* determine RPAs that would avoid those impacts. 16 U.S.C. § 1536. Without determinations from FWS and NMFS about whether Alternative 4A will jeopardize a species or adversely affect its habitat, Reclamation and DWR cannot approve that alternative. 16 U.S.C. §§ 1536 (requiring consultation and no jeopardy), 1538 (prohibiting take). Doing so would place the NEPA cart before the ESA horse. Reclamation's and DWR's "damn the torpedoes" march forward with the NEPA process undermines the purpose of that process and violates the ESA's demand that no agency action may cause jeopardy or unauthorized take. *Id.*

Because mandatory ESA consultation will potentially lead to additional requirements for species protection, the failure to complete Section 7 consultation now creates a potential NEPA violation as well. Reclamation and DWR cannot simply ignore the expertise of FWS and NMFS when approving Alternative 4A or any other alternative. As expert agencies with regard to endangered and threatened species, and cooperating agencies under NEPA, FWS and NMFS play a pivotal role in understanding the proposed alternatives and their impacts. Their analyses cannot be swept aside in the RDEIR/SDEIS impact analysis, especially since ESA consultation has the potential to result in RPAs and significant changes to the project.

CONCLUSION

For the foregoing reasons, the RDEIR/SDEIS is inadequate and must be rejected as such. No substantive decisions regarding management of the Delta can be based on this deficient and unlawful document.

Respectfully submitted,

Stephan C. Volker
Attorney for the North Coast Rivers Alliance, Winnemem Wintu Tribe, San Francisco Crab Boat Owners Association, Inc. Pacific Coast Federation of Fishermen's Associations, and the Institute for Fisheries Resources

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Enclosures

List of Exhibits:

Exhibit 1: Comments of the North Coast Rivers Alliance, Winnemem Wintu Tribe, San Francisco Crab Boat Owners Association, Inc. and Pacific Coast Federation of Fishermen's Associations on the Draft Bay Delta Conservation Plan and the Bay Delta Conservation Plan Draft Environmental Impact Statement and Environmental Impact Report (July 29, 2014).

Exhibit 2: Phillip Reese and Ryan Sabalow, *Feds scramble to avoid another mass salmon die-off in the Sacramento River*, SACRAMENTO BEE (Sept. 5, 2015).

Exhibit 3: Pacific Fisheries Council, Status Report for the 2015 Ocean Salmon Fisheries off Washington, Oregon and California, Supplemental Informational Report 13 (Sept. 2015).

Exhibit 4: Peter Fimrite, *Drought-Driven Salmon Deaths Could Have Far-Reaching Impact*, SAN FRANCISCO CHRONICLE (Oct. 29, 2015)

EXHIBIT
1

to Conservation Groups' Oct. 30, 2015,
Comment Letter on the BDCP RDEIR/SDEIS

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July 29, 2014

VIA EMAIL AND U.S. MAIL

BDCP Comments
Ryan Wulff, NMFS
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814
BDCP.Comments@noaa.gov

Re: Comments of the North Coast Rivers Alliance, Winnemem Wintu Tribe, San Francisco Crab Boat Owners Association, Inc. and Pacific Coast Federation of Fishermen's Associations on the Draft Bay Delta Conservation Plan and the Bay Delta Conservation Plan Draft Environmental Impact Statement and Environmental Impact Report.

Dear Mr. Wulff:

The North Coast Rivers Alliance, Winnemem Wintu Tribe, San Francisco Crab Boat Owners Association, Inc. and Pacific Coast Federation of Fishermen's Associations (collectively, "Conservation Groups") appreciate the opportunity to comment on the California Department of Water Resources' ("DWR's"), the Bureau of Reclamation's ("Reclamation's"), the U.S. Fish and Wildlife Service's ("USFWS'"), and National Marine Fisheries Service's ("NMFS'") (collectively, "Agencies'") Draft Bay Delta Conservation Plan ("Draft BDCP") and joint Draft Environmental Impact Report and Environmental Impact Statement ("DEIR/DEIS") thereon, which were concurrently published for public review on December 13, 2013.

I. INTRODUCTION

The largest and most productive estuary system on the west coast of North and South America – the Sacramento-San Joaquin River Delta – is collapsing for two principal reasons. First, agricultural diverters have discharged and continue to discharge too much contaminated agricultural run-off and return flows into the Delta. Second, the Central Valley Project ("CVP") and the State Water Project ("SWP") have diverted too much of the Delta's fresh water flows. These unsustainable levels of diversions and discharges greatly decrease fresh water flows while increasing salinity and the concentration of herbicides, pesticides, and toxic agricultural run-off in the Delta.

These two threats to the Delta's health have grown steadily over the past five decades, and the resulting environmental devastation has pushed the Delta's imperiled fisheries to the

brink of extinction. Seventeen species of fish endemic to the Delta have already gone extinct; just twelve indigenous species remain. Critical habitat for the endangered Sacramento River winter run Chinook salmon, Central Valley steelhead and spring run Chinook, the Delta smelt, and the Southern Distinct Population Segment ("DPS") of the Northern American green sturgeon suffers progressively worsening degradation.[1] The proposed project outlined in the Agencies' Draft BDCP and associated DEIR/DEIS, which includes three new North Delta water pumping and conveyance facilities each with an "intake capacity" of 3,000 cubic feet per second ("cfs"), might push those and other species to extinction. DEIR/DEIS at 3-12 (describing the "Proposed Project").

The Draft BDCP is a draft Habitat Conservation Plan ("HCP") under the federal Endangered Species Act ("ESA"), 16 U.S.C. section 1531 *et seq.*, and a draft Natural Community Conservation Plan ("NCCP") under the California Natural Community Conservation Planning Act, California Fish & Game Code section 2800 *et seq*. The BDCP and its associated permits and activities would last for 50 years, and have the dual purported goals of restoring the Sacramento-San Joaquin Bay-Delta ecosystem and securing reliable water supplies for California. In reality, however, while the proposed BDCP actions would help "[r]estore and protect the ability of the SWP and CVP to deliver up to full contract amounts" (i.e. up to several times the amount ever delivered on an annual basis to date), they would likely worsen rather than improve the Delta ecosystem and further imperil numerous fish species.

While the Draft BDCP proposes a number of activities aimed at restoring or protecting approximately 145,000 acres of Delta habitat, its centerpiece is the construction and operation of three new water intake facilities on the Sacramento River (just south of Clarksburg) that would connect to a dual-bore, 40-foot-diameter, 30-mile-long pipeline diverting up to 9,000 cfs (though likely more in the long term) around the Delta to the existing pumping facilities in the South Delta for export to Central Valley agricultural and industrial users and cities in southern California and parts of Santa Clara County. Draft BDCP at 4-7 to 4-21. As a result of these new intake and conveyance facilities (collectively, the "Peripheral Tunnels") , water that currently

[1]Winter run Chinook salmon were declared threatened under the federal Endangered Species Act ("ESA") in 1990 (55 Fed.Reg 46515), and then due to continuing population declines, declared endangered in 2005 (70 Fed.Reg 37160). Their critical habitat in the Sacramento River and its tributaries was designated in 1993. 58 Fed.Reg. 33212. Spring run Chinook salmon were declared threatened, and their critical habitat designated under the ESA in 2005. 70 Fed.Reg. 37160, 52488. Central Valley steelhead were declared threatened in 2000 (65 Fed.Reg. 52084) and their critical habitat was designated in 2005 (70 Fed.Reg 52488). The Southern DPS of North American green sturgeon was declared threatened in 2006 (71 Fed.Reg 17757) and its critical habitat was designated in 2008 (73 Fed.Red 52084). Delta smelt were declared endangered in 1993 (58 Fed.Reg. 12854) and their critical habitat was designated in 1994 (59 Fed.Reg. 65256).

flows through the Sacramento River and sloughs to and through the Delta would be diverted, further reducing freshwater flows through the sloughs and Delta. These diversions would also likely necessitate changes in reservoir management in northern California, including on the Trinity, Shasta, Folsom, and Oroville Reservoirs, and as a result reduce flows in the Trinity, Sacramento, American, and Feather Rivers. With less water in the rivers and more water in the pipes of water exporters, the fish and the Delta ecosystem will suffer, while the wasteful and polluting practices of many of those who use the exported Delta water will be allowed to continue, if not expand.

As discussed in more detail below, there is a fundamental logical flaw to a plan that aims to restore ecosystems that have been degraded by freshwater diversions by building new infrastructure enabling diversion of *even more* fresh water. This flaw pervades the Draft BDCP and the DEIR/DEIS and, along with other deficiencies discussed below including the Agencies' failure to complete the consultation and review required by the ESA, renders the DEIR/DEIS fatally inadequate under the National Environmental Policy Act ("NEPA"), 42 U.S.C. sections 4321 *et seq.*, and the California Environmental Quality Act ("CEQA"), California Public Resources Code section 21000 *et seq*. For these reasons and others, Conservation Groups oppose the Peripheral Tunnels and the "Proposed Project" identified in the BDCP and the DEIR/DEIS.

II. THE DEIR/DEIS DOES NOT COMPLY WITH CEQA OR NEPA.

The "heart of CEQA" is the environmental impact report ("EIR"). *Citizens for Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564. "The EIR, with all its specificity and complexity, is the mechanism prescribed by CEQA to force informed decision making and to expose the decision making process to public scrutiny." *California Native Plant Society v. City of Santa Cruz* ("*California Native Plant Society*") (2009) 177 Cal.App.4th 957, 978 (quoting *Planning & Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 910). Similarly, the environmental impact statement ("EIS") "serves NEPA's 'action-forcing' purpose" by ensuring that the agency "will have available, and carefully consider, detailed information concerning significant environmental impacts" and "guarantee[ing] that the relevant information will be made available to the larger audience." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

Here, however, the DEIR/DEIS' analysis of the BDCP fails to foster informed decisionmaking or to expose the decisionmaking process to the public. *California Native Plant Society*, 177 Cal.App.4th at 978. CEQA and NEPA require more.

A. The DEIR/DEIS Fails to Describe and Analyze the Whole of the Action.

CEQA and NEPA require that "[t]he entirety of the project must be described" in the EIR/EIS, "not some smaller portion of it." *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 654 (quote); 40 C.F.R. § 1508.25. Here, the DEIR/DEIS

fails to describe and analyze the "whole of [the] action" in at least two respects. CEQA Guidelines § 15378(a).

First, despite the fact that Natural Community Conservation Planning Act requires each NCCP (which the BDCP is supposed to be) to include an Implementation Agreement containing, among other things, "provisions for establishing the long-term protection of any habitat," "provisions ensuring implementation of the monitoring program and adaptive management program," and "mechanisms to ensure adequate funding to carry out the conservation actions," the DEIR/DEIS *entirely fails* to describe and analyze any Implementation Agreement for the BDCP. Cal. Fish & Game Code § 2820(b). Nor could it have. The Agencies did not publish the draft Implementation Agreement until *May 30, 2014*, more than *five months after* they published the DEIR/DEIS. By failing to describe and analyze this critical feature of the BDCP, the DEIR/DEIS fails to analyze the "whole of [the] action" and violates CEQA and NEPA. CEQA Guidelines § 15378(a); 40 C.F.R. § 1508.25.

Second, while the DEIR/DEIS describes the "*intake* capacity" of the proposed project's Peripheral Tunnels, it fails to describe the likely far greater carrying capacity of the tunnels themselves. DEIR/DEIS at 3-12; Draft BDCP at Sections 4.2.1.1 and 4.2.1.2 (likewise failing to describe the carrying capacity of the conveyance tunnels). Nor does it discuss the likelihood that the intake screens would be enlarged and pump capacity increased in the future to export additional water using any such extra capacity in the tunnels. This failure to discuss reasonably foreseeable future uses of the project violates CEQA and NEPA. *City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1455; 40 C.F.R. § 1508.25.

B. The DEIR/DEIS Unduly Constrains the Project Objectives and Fails to Analyze a Reasonable Range of Alternatives.

Both CEQA and NEPA require that the EIR/EIS analyze a reasonable range of alternatives to the proposed project. "CEQA requires that an EIR, in addition to analyzing the environmental effects of a proposed project, also consider and analyze project alternatives that would reduce adverse environmental impacts." *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1162-1163 (citing Cal. Pub. Res. Code §§ 21061, 21001(g), 21002, 21002.1(a), 21003(c)). An EIR must "describe a range of reasonable alternatives to the project . . . which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project . . . ." 14 Cal. Code Regs. [("CEQA Guidelines")] § 15126.6 (a). Alternatives that would lessen significant effects should be considered even if they "would impede to some degree the attainment of the project objectives, or be more costly." Guidelines § 15126.6(b); *California Native Plant Society v. City of Santa Cruz* ("*CNPS*") (2009) 177 Cal.App.4th 957, 991. The range of alternatives considered must "foster informed decisionmaking and public participation." Guidelines §15126.6(a); *CNPS*, 177 Cal.App.4th at 980, 988. Alternatives may only be eliminated from "detailed consideration" when substantial evidence in the record shows that they

either (1) "fail[] to meet most of the basic project objectives," (2) are "infeasibl[e]," or (3) do not "avoid significant environmental impacts." Guidelines § 15126.6(c).

Under NEPA, the alternatives analysis "is the heart of the environmental impact statement." 40 C.F.R. § 1502.14. An EIS must "[r]igorously explore and objectively evaluate all reasonable alternatives" so that "reviewers may evaluate their comparative merits." *Id.* "The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1038 (9th Cir. 2008). Furthermore, because a project's purpose and need statement "dictates the range of 'reasonable' alternatives," the agency may not frame the purpose and need statement narrowly "to avoid the requirement that relevant alternatives be considered." *City of Carmel-by-the-Sea v. United States Department of Transportation*, 123 F.3d 1142, 1155 (9th Cir. 1997) (first quote); *National Parks & Conservation Association v. U.S. Bureau of Land Management* ("*NPCA v. BLM*"), 606 F.3d 1058, 1070 (9th Cir. 2010) (second quote) ("[a]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality").

Here, the DEIR/DEIS violates both CEQA and NEPA because it unduly constrains the project purposes and objectives and fails to analyze a reasonable range of alternatives. The fundamental purpose of the BDCP is to "restore and protect ecosystem health [in the Delta], water supplies of the SWP and CVP south-of-Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations." DEIR/DEIS ES-8. This purpose "reflects the intent to advance the coequal goals set forth in the Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act) of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem." *Id*. at ES-10. Yet the Agencies appear to interpret these *coequal* goals as instead *prioritizing* water supply reliability *over* ecosystem restoration and requiring them to "[r]estore and protect the ability of the SWP and CVP to deliver up to full contract amounts," which the Agencies adopted as a primary project objective. DEIR/DEIS at ES-8, 10. As discussed below, the Agencies' interpretations and assumptions are not only wrong, they impermissibly constrained the Agencies' selection and analysis of alternatives such that *none* of the 15 action alternatives the Agencies examined in the DEIR/DEIS would reduce water exports from the Delta, and only *one* of them excludes the Peripheral Tunnels.

The Agencies' interpretations and assumptions underlying their stated project objective of restoring and protecting "the ability of the SWP and CVP to deliver up to full contract amounts" are wrong for at least three reasons. DEIR/DEIS at ES-10. First, *coequal* goals are *coequal*. The plain language admits of no other interpretation, and the Agencies do not have the authority to prioritize one over the other. Yet by focusing on alternatives that would "[r]estore and protect the ability of the SWP and CVP to deliver up to full contract amounts," *i.e. increase* Delta exports, the Agencies impermissibly do just that, since "*increasing* freshwater flows [in the

Delta] is essential for protecting resident and migratory fish populations." DEIR/DEIS at ES-8, 10 (first quote); Environmental Protection Agency letter to California State Water Resources Control Board, March 28, 2013, p. 2-3 (second quote; emphasis added) (attached hereto as Exhibit 1); NMFS, July 2014, *Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-Run Chinook Salmon and Central Valley Spring-Run Chinook Salmon and the Distinct Population Segment of California Central Valley Steelhead* ("2014 Recovery Plan"), p. 127 (one of the first listed priority Delta recovery actions is to "[d]evelop, implement, and enforce new Delta flow objectives that mimic historic natural flow characteristics, including *increased freshwater flows (from both the Sacramento and San Joaquin rivers) into and through the Delta* and more natural seasonal and interannual variability" (emphasis added)).[2]

Second, the Agencies' assumption that they could *ever* ensure the "ability of the SWP and CVP to delivery up to full contract amounts" ignores the stark reality that the hydrologic conditions and requirements of state and federal law have *never* allowed the delivery of full contract amounts. *See, e.g.*, *Planning and Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 913 ("There is . . . no question that the SWP cannot deliver all the water to which contractors are entitled under the original contracts. It does not appear that SWP has ever had that ability. Nor do defendants suggest that full delivery of entitlement water is likely within the life of the contracts.").

Third, it blinks at reality to assume that Delta Reform Act's coequal goals – improving California's water supply reliability and "protecting, restoring, and enhancing the Delta ecosystem" – can only be achieved by increasing Delta water exports or building the Peripheral Tunnels. *Id*. at ES-10. There are many ways to achieve both goals without increasing Delta water exports *or* building the Peripheral Tunnels. The Environmental Water Caucus' "Responsible Exports Plan,"[3] for example, does just that. Instead of building the Peripheral Tunnels and increasing water exports, the Responsible Exports Plan would, among other things, reduce exports to a maximum of 3,000,000 acre-feet, institute and improve water efficiency and demand reduction programs, including water recycling and stormwater capture and reuse, eliminate irrigation of drainage-impaired farmlands south of the Delta and institute numerous measures to protect fish and otherwise improve the Delta ecosystem. Exhibit 2.

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[2] The 2014 Recovery Plan is available for download as a PDF here: www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/california_central_valley/final_recovery_plan_07-11-2014.pdf

[3] The Responsible Exports Plan is attached hereto as Exhibit 2. The Plan has also been previously submitted to the Agencies, including as an attachment to Friends of the River's May 21, 2014 Comment Letter re Failure of BDCP Draft Plan and Draft EIR/EIS to Include a Range of Reasonable Alternatives Including the Responsible Exports Plan Submitted by the Environmental Water Caucus.

Other proffered alternatives would also achieve those coequal goals while reducing California's reliance on water exports from the Delta. For example, the alternative developed by state Senator Lois Wolk, Chair of the Senate Select Committee on the Sacramento-San Joaquin Delta and member of the Senate Natural Resources and Water Committee, and crystalized as SB42, includes investments in ecosystem restoration and protection and flood control, while focusing on improving water supply reliability through recycling, expanded groundwater storage, desalination, and conservation. The Natural Resources Defense Council's "Portfolio" alternative likewise focuses on water recycling, conservation and other non-Delta-export mechanisms to improve water supply reliability in the State. Despite having a copy of these reasonable and feasible alternatives well before they published the Draft BDCP and DEIR/DEIS, the Agencies failed to consider *anything like them* in those documents, and thereby violated CEQA and NEPA.

By including as a project purpose and objective of "[r]estor[ing] and protect[ing] the ability of the SWP and CVP to deliver up to full contract amounts," the Agencies unduly constrained their selection of alternatives to exclude reduced export and other viable alternatives in violation of NEPA and CEQA. DEIR/DEIS at ES-8 (quote), 10 (same); *NPCA v. BLM*, 606 F.3d at 1070. By failing to analyze the Responsible Exports Plan and other "viable but unexamined alternative[s]," the Agencies "render[ed]" the DEIR/DEIS "inadequate." *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d at 1038 (quote); 40 C.F.R. § 1502.14; CEQA Guidelines §§ 15126.6(a), (b).

C. The DEIR/DEIS Remains Incomplete Due to Its Long List of Unresolved Issues.

As prescribed by NEPA and CEQA, the DEIR/DEIS includes a list of 13 issues representing "areas of known controversy and issues to be resolved." ES-41 through ES-43; 40 C.F.R. § 1502.12; Guidelines § 15123. The issues listed are complex, broad, and so important that the BDCP cannot be effectively evaluated until they are resolved. For example, one of the issues listed is "biological resources," for which the DEIR/DEIS notes that "the complexity of the BDCP raises many concerns over environmental consequences" for aquatic and terrestrial ecosystems and species, "changes in existing land uses and habitats," and "adverse effects on sensitive resources." ES-41. Another set of issues is "water supply, surface water resources, and water quality," which the DEIR/DEIS admits "remain highly controversial for a wide array of stakeholders." ES-41. Other unresolved issues include flood management, how the BDCP will affect agriculture, and "the potential conflict between conservation goals" and economic development. ES-41 through ES-42. CEQA and NEPA do not allow such critical issues to be simply listed and left unresolved.

Unacceptable levels of uncertainty pervade other sections of the DEIR/DEIS as well. For example, the DEIR/DEIS made "no determination" findings on whether the water tunnels, even after mitigation, would have adverse impacts on spawning, incubation habitat, and migration conditions for endangered Chinook salmon, steelhead, and green sturgeon. DEIR/DEIS ES-73, ES-75, ES-77, ES-79, ES-81, ES-83.

Programmatic environmental impact documents may be prepared for a series of related actions "that can be characterized as one large project" under CEQA (Guidelines § 15168), or "connected actions" that "[a]re interdependent parts of a larger action" under NEPA. 40 C.F.R. § 1508.25(a)(1). Program EIRs may omit site-specific information, but "[d]esignating an EIR as a program EIR . . . does not by itself decrease the level of analysis otherwise required." *Friends of Mammoth v. Town of Mammoth Lakes Redevelopment Agency*, 82 Cal.App.4th 511, 533 (2000). Therefore, the EIR still must "be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables them to make a decision which intelligently takes account of environmental consequences." *Id.* at 534. Similarly, while a programmatic EIS may decline to fully evaluate site-specific impacts "until a critical decision has been made to act," it must still "provide 'sufficient detail to foster informed decision-making." *Friends of Yosemite Valley v. Norton*, 348 F.3d 789, 800 (2003) (quoting *Northern Alaska Environmental Center v. Lujan*, 961 F.2d 886, 890-891 (9th Cir. 1992)). The DEIR/DEIS here is so lacking in basic and essential information that it fails to meet this standard.

As further discussed below, the Delta Science Program Independent Review Panel also noted unacceptable levels of uncertainty in the DEIR/DEIS. *See, e.g.*, Delta Science Program Independent Review Panel Report, BDCP Effects Analysis Review, Phase 3 ("DSP Report"), p. 5 ("most of the potential BDCP effects carry a relatively high level of uncertainty," but the effects analysis "did not sufficiently acknowledge or articulate this reality").

D. The Agencies' Treatment of Endangered and Threatened Species Violates Both NEPA and the ESA.

The Agencies violated NEPA and the ESA because they issued the DEIR/DEIS without first preparing and incorporating the required Biological Assessments and Biological Opinions analyzing how the proposed BDCP actions would affect the critical habitat of at least five listed fish species. The omission of this critical step means that the BDCP does not constitute an adequate HCP, and renders the DEIR/DEIS essentially useless as a disclosure document under NEPA. 40 C.F.R. § 1502.25(a) ("[t]o the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with" analyses or studies requires by the ESA); 50 C.F.R. § 402.14(a).

By enacting the ESA, "Congress intended endangered species to be afforded the highest of priorities." *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 174 (1978). "The plain intent of Congress in enacting [the ESA] was to halt and reverse the trend toward species extinction, *whatever the cost*." *Id.* at 184 (emphasis added.) The ESA's goal is to ensure not only that species survive, but that their populations recover to the point that they can be removed from the endangered and threatened lists. *Alaska v. Lubchenko*, 723 F.3d 1043, 1054 (9th Cir. 2013).

Therefore, the ESA requires that federal agencies[4] ensure that their actions, or actions that they fund or authorize, are "not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of [critical] habitat of such species." 16 U.S.C. § 1536(a)(2) (quote); *Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F.3d 1059, 1076 (9th Cir. 2004) ("existing or potential conservation measures outside of the critical habitat cannot properly be a substitute for the maintenance of critical habitat that is required by Section 7" of the ESA).

To ensure that projects do not "tip a species from a state of precarious survival into a state of likely extinction," agencies must review their actions "at the earliest possible time to determine whether any action may affect listed species or critical habitat." *National Wildlife Federation v. National Marine Fisheries Service*, 524 F.3d 917, 929-930 (9th Cir. 2008) (first quote); *Karuk Tribe of California v. U.S. Forest Service*, 681 F.3d 1006, 1020 (9th Cir. 2012) (second quote), *cert. denied*, 133 S.Ct. 1579 (2013). "If such a determination is made, formal consultation [with the U.S. Fish and Wildlife Service ("FWS") and/or the National Marine Fisheries Service ("NMFS")] is required." 50 C.F.R. §§ 402.14(a), 402.12(a) (a biological assessment determines whether the action will adversely affect listed species or their critical habitats, "and is used in determining whether formal consultation is required").

At the conclusion of formal consultation, FWS prepares a Biological Opinion discussing whether the proposed action and its cumulative effects are "likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat." 50 C.F.R. § 402.14(g)(4); *see also Center for Biological Diversity v. Bureau of Land Management*, 422 F.Supp.2d 1115, 1144-45 (N.D. Cal. 2006). If the biological opinion concludes that the action may adversely affect a species or its critical habitat but will not jeopardize its continued existence, it can include an incidental take statement permitting a specific level of take, and prescribing mandatory "reasonable and prudent measures" designed to minimize harm to the species. 50 C.F.R. § 402.14(i)(5).

For nonfederal applicants, such as the state agencies here, FWS or NMFS may issue "incidental take permits" under section 10(a)(1)(B) of the ESA. An applicant for an incidental take permit must submit a "habitat conservation plan" ("HCP") (such as the BDCP is supposed to be) describing the potential impacts of the project and the taking, and mitigation measures to minimize the taking of the species. The HCP must ensure that the "taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild," and it must be adequately funded. 16 U.S.C. § 1539(a)(2)(B)(iii)-(iv). A similar provision exists under state law, California Fish and Game Code section 2835, which provides for take of protected species "whose conservation and management is provided for in [an approved] natural community

[4] The ESA's provisions for federal agencies apply here because the Bureau of Reclamation is a federal agency taking action with respect to the proposed water tunnels. *See* BDCP 1-6.

conservation plan."

Unless it is authorized under either section 7 or section 10 of the ESA, any taking of a listed species is strictly prohibited. 16 U.S.C. § 1538(a)(1)(B). "Take" is defined broadly, including " to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." *Id.* at § 1532(19). 50 C.F.R. § 17.3 defines "harm" to include any act that actually kills or injures the species, including any death or injuries as a result of habitat modification or degradation that impairs essential behavioral patterns such as feeding, breeding, or sheltering. NMFS regulations include spawning and migrating as "essential behavioral patterns." 50 C.F.R. § 222.102. The California Endangered Species Act ("CESA") contains a similar prohibition and definition of take. Cal. Fish & Game Code §§ 2080, 86.

By further reducing freshwater flows in the Delta, the Sacramento River, and sloughs including Elkhorn, Georgianna, Miners, Steamboat, and Sutter sloughs, the proposed BDCP actions would adversely modify designated critical habitat for at least five endangered and threatened species: the Sacramento River winter-run Chinook salmon, the Central Valley spring-run Chinook Salmon, Central Valley steelhead, southern distinct population segment of North American green sturgeon, and the Delta smelt. Indeed, NMFS itself has warned that the proposed BDCP actions threaten the "potential extirpation of mainstream Sacramento River populations of winter-run and spring-run Chinook salmon." NMFS, April 4, 2013, *Progress Assessment and Remaining Issues Regarding the Administrative Draft BDCP Document*. Both FWS and NMFS have also found that continued operation of the CVP and SWP are likely to jeopardize the continued existence of the delta smelt and other various fish species. *See, e.g.,* NMFS, June 4, 2009, *Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project*; FWS, December 15, 2008, *Biological Opinion of the Coordinated Operations of the Central Valley Project and State Water Project*. And in its 2014 Recovery Plan for the Sacramento River winter-run Chinook salmon, the Central Valley spring-run Chinook salmon and the California Central Valley steelhead, NMFS confirmed that "recovery" of the three listed salmonid species "would require that *no more populations are allowed to become extirpated* and that *habitat must be expanded*" – *not contracted* – "to allow for the establishment of additional populations." 2014 Recovery Plan at 4.

Despite these known devastating threats, and the fact that the BDCP constitutes "agency action" triggering ESA obligations, no Biological Assessment or Biological Opinion has been prepared. *See Pacific Rivers v. Thomas*, 30 F.3d 1050, 1053-1054 (9th Cir. 1994) ("agency action" includes programmatic plans). The DEIR/DEIS specifies that the agencies "are applying for incidental take permits (ITPs)" and "incidental take authorization by the California Department of Fish and Wildlife (DFW)." DEIR/DEIS ES-1; *see also* BDCP 1-8 (planned BiOp will address ESA Section 10 permits decision). The BDCP states that it will "provide the basis for a biological assessment (BA) that supports new ESA Section 7 consultations," BDCP 1-1, and "support the issuance of a joint BiOp under Section 7." BDCP 1-8. However, conducting NEPA analysis prior to and without the benefit of the ESA consultation process violates the

ESA's mandate that the ESA process be commenced "at the earliest possible time," 50 C.F.R. § 402.14(a), and violates NEPA's requirement that the NEPA and ESA processes be carried out "concurrently" and in an "integrated manner." 40 C.F.R. § 1502.25(a).

NEPA requires that if a draft environmental impact statement is "so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion" prior to releasing a final EIS. 40 C.F.R. 1502.9. Because the DEIR/DEIS here is not informed by the required but yet-to-be-completed ESA analyses of how the proposed BDCP actions would affect listed species and their critical habitats, it is precisely "so inadequate" that it "preclude[s] meaningful analysis." CEQA likewise prohibits an EIR that is so inadequate as to prevent meaningful public review and comment. Guidelines § 15088.5(a)(4); *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449. Therefore, the agencies must conduct the required ESA consultation and analysis and revise the DEIR/DEIS in light of any information coming out of that process.

E. The BDCP's Effects Analysis Is Inaccessible and Difficult to Understand, Impeding Effective Public Review.

The BDCP's Effects Analysis (Chapter 5 of the BDCP) is so long and poorly organized and cross-referenced that even a panel of seven scientists had difficulty understanding the document. DSP Report at 5 (the "document was difficult to review and comprehend," was "fragmented in its presentation," and suffered from "inefficient organization and incomplete cross-referencing"). Therefore, the effects analysis cannot serve its purpose of providing the public with information and an opportunity to comment upon it. It is true that given the complexity of the BDCP and the relevant ecosystems, the effects analysis and environmental review will necessarily present complicated issues and uncertainties. However, the Delta Science Program's Independent Review Panel found much room for improvement.

First, the scientists noted that the document's lack of organization and appropriate cross-referencing provided "insufficient guidance for the reader." *Id.* at 5.

> "[T]he Effects Analysis (Chapter 5) itself is still poorly substantiated and leaves too much to appendices and other BDCP chapters without explicit cross-references. The lack of accessibility to information within the chapter or clear reference to supporting detail inhibits rather than elucidates comprehension of the findings and thus conveys an unsatisfying 'trust us' message."

Id. at 6. Even though much of the needed information was included in technical appendices, the scientists found it "difficult to readily track down key information," and noted that they "often found assumptions and conclusions stated in the Effects Analysis to be lacking in sufficient dtail to stand alone." *Id.* at 16.

Second, the scientists believe that the document fails to "sufficiently acknowledge or articulate" the high levels of uncertainty involved in the BDCP, particularly its effects on key species and the predictions regarding its beneficial effects. *Id.* at 5-6. *See also* id. at 7 ("A broad consensus exists among the Panel that Chapter 5 does not adequately acknowledge the extensive uncertainty associated with the BDCP's assumptions and predictions"), 15 ("[l]evels of uncertainty are not adequately addressed"), 17-18.

Finally, the science panel found that the Effects Analysis' conclusions were not appropriately supported. *Id.* at 7. In assessing the BDCP's impacts on species, the Effects Analysis failed to consider crucial factors such as sensitive life cycle stages and variation in habitat quality. *Id.* at 14. When the extensive uncertainty involved meant that a variety of outcomes were possible, the Effects Analysis considered "only the more beneficial outcomes" in arriving at its conclusions. *Id.* at 8, 13 ("the conclusion is often overstated as the most beneficial result"). As a result, the "net effects analysis tends to overreach conclusions of positive benefits for covered fish species." *Id.* at 7. It also failed to appreciate the complexities involved in effectively implementing an adaptive management plan, especially in light of the pervasive uncertainties. *Id.* at 8-9, 15.

The excessively complicated and incompletely cross-referenced BDCP and DEIR/DEIS do not serve NEPA's purpose of ensuring informed decision-making and facilitating public participation. The court held in *NPCA v. BLM*, 606 F.3d at 1073, that "in determining whether an EIS fosters informed decision-making and public participation, we consider not only its content, but also its form." The court went on to hold that the EIS in that case was insufficient because it forced readers interested in a particular environmental issue to "cull through entirely unrelated section of the EIS and then put the pieces together." *Id.* The BDCP and DEIR/DEIS here are inadequate for the same reason. Their lack of organization, skewed treatment, vagueness and uncertainty fail to "foster[] informed decision-making and public participation."

F. The Agencies' Treatment of Public Trust Resources Violates both NEPA and the Public Trust Doctrine.

The DEIR/DEIS and Draft BDCP violate the Public Trust Doctrine by failing to fully consider the impacts of the proposed BDCP actions on public trust uses and the mitigation measures and alternatives that could reduce the impacts of those actions on public trust resources. The Agencies' primary apparent goal for the BDCP – to enable the supply of full contract amounts despite the consequent harm to public trust resources – would itself constitute a violation of the Public Trust. Use of public trust resources may not be approved "without consideration of other competing public trust purposes." *Carstens v. California Coastal Commission* ("*Carstens*") (1986) 182 Cal.App.3d 277, 289.

"The doctrine that the public owns the right to tidelands" and submerged lands "originated in Roman law, which held the public's right to such lands to be illimitable and

unrestrainable and incapable of individual exclusive appropriation." *City of Berkeley v. Superior Court of Alameda* ("*City of Berkeley* ") (1980) 26 Cal.3d 515, 521. "[T]he English common law evolved the concept of the public trust, under which the sovereign owns all of its navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people." *National Audubon Society v. Superior Court* ("*National Audubon*") (1983) 33 Cal.3d 419, 434.

California's sovereign ownership of all tidelands, submerged lands, and beds of navigable waters dates to its statehood in 1850. "When California was admitted to statehood in 1850, it succeeded to title in the tidelands within its borders not in its proprietary capacity but as trustee for the public." *City of Berkeley*, 26 Cal.3d at 521. California holds all public trust resources for the benefit of all Californians for public trust purposes such as waterborne commerce, navigation, fisheries, recreation related to the water, aquatic and terrestrial habitat preservation, scenic beauty, and open space. *National Audubon*, 658 P.2d at 709 (California is the "trustee of a public trust for the benefit of the people"); *Marks v. Whitney* (1971) 6 Cal.3d 251, 259-60.

Today, the Public Trust Doctrine and article I section 25 and article X section 4 of the California Constitution protect the public's rights to access, use and enjoy tidelands, submerged lands, and overlying waters for boating, fishing and other public trust uses. *National Audubon*, 33 Cal.3d at 425, 440-46. The Public Trust Doctrine is "an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands, and tidelands, surrendering that right only in rare cases where abandonment is consistent with the purposes of the trust." *Id*. Accordingly, the California Constitution has established the State's obligations with regard to these resources in the Public Trust Doctrine. *Id*.

Pursuant to those obligations, the Agencies must ensure that the BDCP and all actions taken thereunder are consistent with the Public Trust Doctrine by evaluating the proposed water diversions for their impact on public trust resources. *National Audubon*, 33 Cal.3d at 446*; Carstens*, 182 Cal.App.3d at 288. Indeed, the California Department of Water Resources itself has called for just such an analysis, stating that

> Public Trust needs and water needed to meet water right permit terms and conditions and other regulatory requirements must be considered. The instream flows and Delta outflow must be sufficient to restore and support the interconnected ecosystem of the Bays, the Delta and the tributaries. The future availability of water for export if any will vary from year to year and it is probable that no water will be available during dry cycle hydrology such as occurred in 1929 through 1934 and 1987 through 1992. Climate change could produce dry cycles which are far more extended than those experienced in the last 100 years.

DEIR/DEIS Chapter 1, Appendix 1D, part 3 (letter dated May 14, 2009). Furthermore, as the State Water Resources Control Board has pointed out numerous times, it "has an [independent]

obligation" apart from that of the Agencies "to consider the effect of the proposed project on public trust resources and to protect those resources." *See, e.g.*, DEIR/DEIS Chapter 1, Appendix 1D, E-161 (BDCP Scoping Report).

Yet the DEIR/DEIS does not adequately discuss impacts to public trust resources, nor does it make necessary determinations concerning the amount of water required to maintain ecosystem integrity in the Delta estuary, the amount of surplus water beyond that – if any – that is available for exports, and the economic and environmental consequences of reduced or no export scenarios. Without such analyses and determinations, including an analysis of the State Water Resources Control Board's Delta Flow Criteria Report,[5] any decision based on the present DEIR/DEIS would arbitrary and capricious.

When and if the Agencies do conduct a public trust analysis, they should search for a project alternative that would both allow and protect all the public trust uses affected. If they find such an alternative, they must adopt it. *National Audubon*, 33 Cal.3d at 446-7; *Carstens*,182 Cal.App.3d at 288; *Center for Biological Diversity, Inc. v. FPL Group, Inc.* (2008) 166 Cal.App.4th 1349, 1372.

G. The Agencies' Refusal to Make Comments Accessible to the Public Impedes Informed Review of the Project.

The Agencies have refused to make the public's comments accessible, and have offered no reason or explanation for this refusal. Keeping comments private serves no legitimate public purpose. The agencies should post all comments online and extend the comment period to allow members of the public to learn from and communicate with one another. Under CEQA, an agency must provide a "good faith, reasoned analysis in response [to comments]. Conclusory statements unsupported by factual information will not suffice." PRC §§21003.1, 21091(d)(2)(A); Guidelines §§15002(j), 15087, 15088. Thus, providing the public with the opportunity to review the comments of other interested parties is vital to the public participation and informational components of CEQA.

This is especially important when a major environmental issue is raised. Guidelines §§15064(c), 15088(c). "In particular, the major environmental issues raised when the lead agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted." Guidelines §15088(c); *San Joaquin Raptor/Wildlife Rescue Center v. County of*

[5] The flow reports recommended substantial increase in Delta outflow and include biological performance objectives, alternatives to protect water supply and Delta infrastructure against catastrophic events, a water availability analysis, evaluation of the waste and unreasonable use of water, a cost-benefit analysis, and a balance of the public trust. *See* Water Code § 85086(c)(1).

Stanislaus (1994) 27 Cal.App.4th 713, 725; *People v. Kern* (1974) 29 Cal.App.3d 830, 842. Such controversies cannot be brought to the public's attention when the Agencies block access to comments, hindering the ability of commenters to assess this component of the required CEQA review.

III. THE DRAFT BDCP DOES NOT COMPLY WITH THE ESA.

As discussed above, a Habitat Conservation Plan must ensure that the "taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild," and it must be adequately funded. 16 U.S.C. § 1539(a)(2)(B)(iii)-(iv). For at least three reasons, the Draft BDCP is not a permissible HCP, and any permits issued under Section 10 of the ESA are invalid.

First, the Draft BDCP does not ensure that the actions proposed therein will avoid "appreciably reduc[ing] the likelihood of the survival and recovery of the species in the wild." 50 C.F.R. § 17.22(b)(2)(i)(D); 16 U.S.C. § 1539(a)(2)(B)(iv). The Draft BDCP lacks convincing evidence that it will protect or recover the threatened and endangered species at issue, and contains no emergency measures to protect populations if they begin to crash. To the contrary, as discussed above, the available evidence demonstrates that the proposed BDCP actions as a whole threaten the "*potential extirpation* of mainstream Sacramento River populations of winter-run and spring-run Chinook salmon." NMFS, April 4, 2013, *Progress Assessment and Remaining Issues Regarding the Administrative Draft BDCP Document* (emphasis added). Rather than the *reduced flows* in the Sacramento River and Delta that would result if the Peripheral Tunnels are built, the listed Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon and California Central Valley steelhead need "*increased freshwater flows* (from both the Sacramento and San Joaquin rivers) into and through the Delta" to recover. 2014 Recovery Plan.

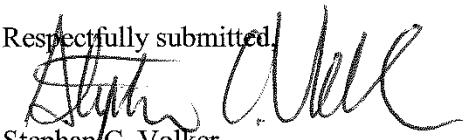
Second, the ESA requires that agencies implement the law based on "the best scientific and commercial evidence available" rather than doing so "haphazardly, on the basis of speculation or surmise." *Bennett v. Spear*, 520 U.S. 154, 176 (1997); 16 U.S.C. § 1536(a)(2). As described above, instead of being based on the "best scientific . . . evidence available," many of the proposed BDCP actions run directly *counter* to it. Furthermore, the BDCP and its DEIR/DEIS are riddled with uncertainties – including uncertainties improperly downplayed by the agencies. Glossing over significant risks and unknowns is the epitome of haphazard planning – precisely what the ESA prohibits.

Third and finally, the Peripheral Tunnels are the central feature of the Draft BDCP, but have *nothing* to do with habitat conservation. Simply calling a project an HCP does not make it one. The Peripheral Tunnels have no place in an HCP, and that aspect of the BDCP should be studied separately from the measures that are actually focused on habitat conservation.

IV. CONCLUSION

For the foregoing reasons, the Draft BDCP and DEIR/DEIS violate NEPA, CEQA, the ESA and the Public Trust Doctrine. For similar reasons, Conservation Groups oppose the Peripheral Tunnels and the "Proposed Project" identified in the Draft BDCP and the DEIR/DEIS, and urge the Agencies to reconsider the actions they propose to take.

Respectfully submitted,



Stephan C. Volker
Attorney for the North Coast Rivers Alliance, Winnemem Wintu Tribe, San Francisco Crab Boat Owners Association, Inc. and Pacific Coast Federation of Fishermen's Associations

Enclosures

LIST OF EXHIBITS

1. Tim Vendlinski, United States Environmental Protection Agency, Letter to Jeanine Townsend, California State Water Resources Control Board, re: EPA's comments on the Bay-Delta Water Quality Control Plan; Phase 1; SED, March 28, 2013; and

2. Environmental Water Caucus, April 2013, *Responsible Exports Plan*.

EXHIBIT
1

to Conservation Groups' July 29, 2014,
Comment Letter on the BDCP DEIR/DEIS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

MAR 28 2013

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, California 95814-0100

RE: EPA's comments on the Bay-Delta Water Quality Control Plan; Phase 1; SED

Dear Ms. Townsend,

The U.S. Environmental Protection Agency (EPA) appreciates the opportunity to review the State Water Resources Control Board's (State Board's) *Public Draft Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary: San Joaquin River Flows and Southern Delta Water Quality,* (SED), released on December 31, 2012. Once the State Board concludes this process, EPA will review and approve or disapprove any new or revised water quality standards pursuant to Clean Water Act §303(c).

We urge the State Board to expeditiously adopt and implement updates to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta WQCP).[1] The benefits of increasing freshwater flows can be realized quickly and help struggling fish populations recover. EPA respectfully submits the following observations and recommendations regarding the SED:

1. EPA supports the State Board's efforts to enhance freshwater flows for aquatic life protection as part of a multi-phase, interagency effort to address resource degradation in the San Joaquin River basin.

Multiple stressors are impacting aquatic life and degrading water quality across the Bay-Delta ecosystem.[2] These stressors include insufficient freshwater flow, conversion and fragmentation of floodplains and wetlands, discharge of contaminants into surface waters, introduction and spread of invasive species and the resulting alteration of food webs, and degradation of aquatic habitat through high instream water temperatures and low levels of dissolved oxygen.

The State Board, in its Strategic Plan, has articulated a valid process for considering flows and other stressors affecting the Bay-Delta ecosystem,[3] and has recognized that increasing freshwater flows is

[1] State Water Resources Control Board, 13 December 2006, Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, (Bay-Delta WQCP).
[2] See EPA's December 11, 2012 letter to the State Board Re: The Comprehensive Review of the Bay-Delta Water Quality Control Plan. Available at: http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/comments121212/karen_schwinn.pdf
[3] State Water Resources Control Board; Strategic Plan 2008-2012 http://www.waterboards.ca.gov/water_issues/hot_topics/strategic_plan/2007update.shtml

essential for protecting resident and migratory fish populations.[4] The State Board correctly concluded that "*[a]lthough flow modification is an action that can be implemented in a relatively short time in order to improve the survival of desirable species and protect public trust resources, public trust resource protection cannot be achieved solely through flows – habitat restoration also is needed…One cannot substitute for the other; both flow improvements and habitat restoration are essential to protecting public trust resources.*"[5] The Regional Water Boards, other agencies, and non-governmental organizations are already pursuing actions to decrease the loading of contaminants into waterways, and to restore floodplains and riparian habitat. To comprehensively address all stressors, the State Board should use its authorities to address the flow regime.

2. EPA recommends strengthening the proposed narrative fish and wildlife objective with greater definition and extending year-round protection to aquatic life.

In the SED, the State Board proposed the following narrative fish and wildlife objective to apply from February to June:

> "*Maintain flow conditions from the San Joaquin River Watershed to the Delta at Vernalis, together with other reasonably controllable measures in the San Joaquin River Watershed, sufficient to support and maintain the natural production of viable native San Joaquin River watershed fish populations migrating through the Delta. Flow conditions that reasonably contribute toward maintaining viable native migratory San Joaquin River fish populations include, but may not be limited to, flows that mimic the natural hydrographic conditions to which native fish species are adapted, including the relative magnitude, duration, timing, and spatial extent of flows as they would naturally occur. Indicators of viability include abundance, spatial extent or distribution, genetic and life history diversity, migratory pathways, and productivity.*"[6]

The draft narrative objective should be strengthened by replacing vague language with measurable performance targets and by having it apply during all months of the year. Clear definitions and performance targets are critical for establishing an effective objective and allow for evaluation of the attainment of the objective in the future. A water quality standard "*express(es) or establish(es) the desired condition…or instream level of protection for waters of the United States….*"[7] The term "viable," for example, is subject to wide variation of interpretation, which minimizes the clarity and effectiveness of the objective. Measurable performance targets should be established for "*viable,*" and the "*abundance, spatial extent or distribution, genetic and life history diversity, migratory pathways and productivity,*"[8] Similarly, we recommend removing the phrase "*other reasonably controllable measures in the San Joaquin River watershed*" from the objective and relocating it to prefatory material that establishes the context for multiple stressors in the lower San Joaquin River watershed. Including this phrase in the objective defers decisions to future discussions about what, if anything, should be done about freshwater flows and other stressors affecting the San Joaquin River.

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[4] "*The best available science suggests that current flows are insufficient to protect public trust resources.*" Page 2 and "*The public trust resources…include those resources affected by flow, namely, native and valued resident and migratory aquatic species, habitats, and ecosystem processes.*" Page 10 in State Water Resources Control Board, 3 August 2010, Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem Prepared Pursuant to the Sacramento-San Joaquin Delta Reform Act of 2009, (2010 Flows Report), available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/final_rpt080310.pdf

[5] 2010 Flows Report, p. 7.

[6] State Water Resources Control Board, December 2012, Public Draft Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary: San Joaquin River flows and Southern Delta Water Quality (SED), Appendix K, Table 3, p. 1.

[7] Environmental Protection Agency, October 2012, What is a New or Revised Water Quality Standard Under CWA 303(c)(3)? – Frequently Asked Questions, EPA Publication 820F12017. 4pp. available at http://water.epa.gov/scitech/swguidance/standards/cwa303faq.cfm

[8] SED, Appendix K, Table 3, p. 1.

In addition, the proposed objective should be applied year round. Protecting the "viability" of fish populations involves protecting all of their life stages and native migratory fish are present in the San Joaquin River watershed in all months of the year. Although the proposed program of implementation currently focuses on flow-related actions in specific seasons, it seems clear the broad goal of the narrative objective, viable populations of native migratory fish, is a year-round goal. See #7 below for more detail.

The status of the existing *salmon doubling* objective[9] for the San Joaquin River and its relationship to the proposed objective is unclear in the SED. We recommend providing a redline/strike-out version of the Bay-Delta WQCP to show that the narrative salmon doubling objective will remain as an objective in the Bay-Delta WQCP after this update. The intended relationship between the proposed narrative objective and the salmon doubling objective should be explicitly described in the final SED.

3. The proposed flows do not appear to be substantially different from existing flows.

The preferred alternative identified in the SED includes requirements for 35% unimpaired flow (UF) at the mouths of the Stanislaus, Merced, and Tuolumne Rivers (February to June) and baseflows at Vernalis of 1,000 cubic feet per second (cfs) (February to June). The State Board's approach results in less than 35% UF at the downstream point of Vernalis because no flow requirements are proposed for the upper San Joaquin River, which contributes a significant amount of the unimpaired flow but less of the actual observed flow. The State Board proposed flows for the three major tributaries proportional to their historical and ecologically appropriate contributions but did not provide an adequate rationale for excluding the upper San Joaquin River itself.

Analyses summarized in the SED predict that, in an average year, proposed freshwater flows will increase in the Tuolumne and Merced Rivers by ~20% (February to June), decrease in the Stanislaus River by 7%, and increase at Vernalis by 8% relative to baseline.[10] EPA is concerned with the proposed decrease of flows in the Stanislaus River because the proposed flows would be less than those specified by the federal National Marine Fisheries Service (NMFS) under a "jeopardy" Biological Opinion (BO) issued to prevent the extirpation of salmon populations caused by the operation of the Central Valley Project and State Water Project.[11] The requirements in the NMFS BO would still be in effect and supercede the 35% UF requirement. However, the percentage UF selected by the State Board should strive for a higher goal of recovering sensitive species populations, rather than prescribing flow amounts lower than what is needed to merely avoid extirpation of salmon and steelhead.

In order to understand how the predicted increases and decreases in flows in the tributaries translate at the lowest point in the watershed, through which fish from all the tributaries must migrate, EPA calculated the median percentage UF that would reach Vernalis under the proposed flow scenario and compared it to observed flows.

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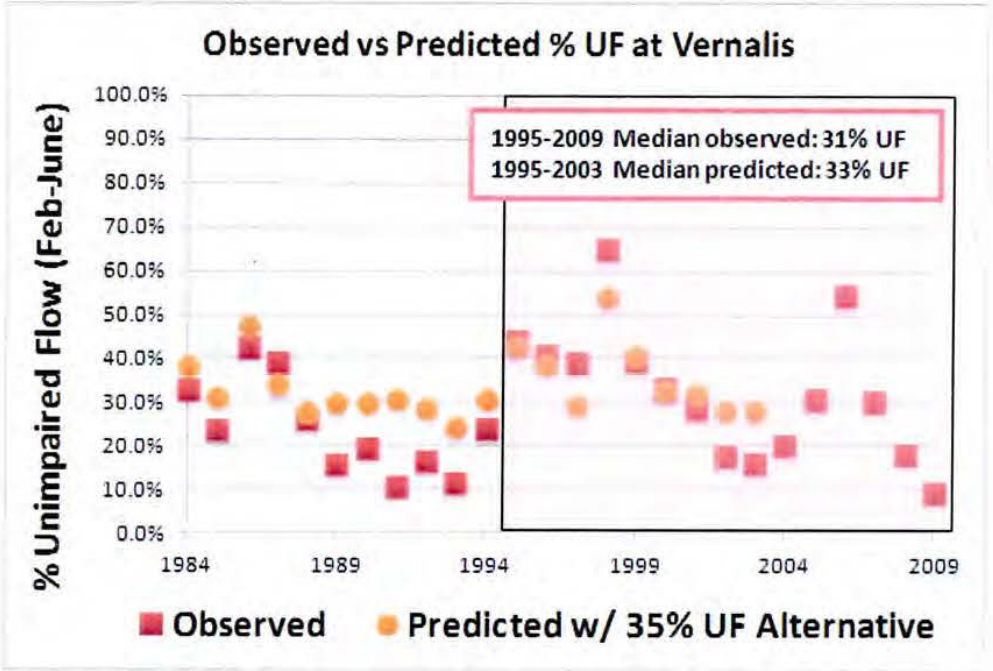
[9] Bay-Delta WQCP, Table 3, pp. 14

[10] SED, Table 20-2, pp. 20-5

[11] NMFS BO refers to NMFS, June 2009. Endangered Species Act Section 7 Consultation. Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project.
Appendix L: Sensitivity Analysis in the SED compares the NMFS Biological Opinion reasonable and prudent alternatives, including Action 3.1.3 flows required on the Stanislaus River against the flows predicted using the Water Supply Effects model under the 35% UF proposed alternative. "When the WSE model results are compared to baselines, the modeling shows some flow reductions in the Stanislaus River. However, because the LSJR alternatives would not directly result in any changes to the NMFS BO flow requirements on the Stanislaus River, actual reductions in flows below the NMFS BO flows would be unlikely." (SED, pp. 20-5)



EPA looked at the time frame since 1995, when the last major changes to flow requirements were made in the Bay-Delta WQCP. The median of observed and predicted flows under the 35% UF alternative were calculated from 1995 to the date of last available data in the SED, in 2009. The median of the observed flows is 31.0%, whereas the median of predicted flows under the 35% UF alternative is 32.8%.[12] EPA could not find a stated margin of error on the Water Supply Effects (WSE) model used in the SED, but the minor increase in flow predicted at Vernalis is likely to fall within the margin of error of the model. The flows proposed by the State Board do not appear to translate to increased protection for aquatic life compared to existing conditions.

According to the State Board,[13] U.S. Fish and Wildlife Service (FWS),[14] NMFS,[15] and the California Department of Fish and Wildlife (DFW),[16] existing conditions are not protecting aquatic life. All three fisheries agencies identified salmon and steelhead populations as declining under current flow conditions. Furthermore, in October of 2011, EPA found that existing temperature conditions, which are

[12] EPA used observed flow and unimpaired flow at Vernalis from Tables 2.6 and 2.5 on pp. 2-17 and 2-16 in Appendix C of the SED. The values for the modeled flows at Vernalis under the proposed 35%UF scenario were obtained from column MG in the "Alt%WSEResults" tab in the spreadsheet titled "WSE_Model_12312012" which was provided along with the SED for public comment and is available at: http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/2012_sed/docs/wse_model_econoutput_12312012.zip; last accessed 03/13/13.

[13] 2010 Flows Report, p.2.

[14] "Interior remains concerned that the San Joaquin Basin salmonid populations continue to decline and believes that flow increases are needed to improve salmonid survival and habitat." USFWS May 23, 2011 Phase I Scoping Comments, available at: http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/cmmnts052311/amy_aufdemberge.pdf

[15] "Inadequate flow to support fish and their habitats is directly and indirectly linked to many stressors in the San Joaquin river basin and is a primary threat to steelhead and salmon." NMFS February 4, 2011 Phase I Scoping Comments, available at: http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/cmmnts020811/010411dpowell.pdf

[16] "…current Delta water flows for environmental resources are not adequate to maintain, recover, or restore the functions and processes that support native Delta fish." Executive Summary in 2010 CDFG Flow Criteria.

heavily influenced by flow, are not adequate to support salmonids in several segments of the lower San Joaquin River and its lower tributaries.[17]

4. The proposed 35% UF may be too low to provide essential ecological functions.

EPA is concerned the proposed flows will not provide essential ecological functions such as adequate variability of flows, magnitude of flows, and tributary baseflows that a natural hydrograph can provide. Reproducing the natural variability in flow is a potential ecological benefit of using an approach based on a percentage of UF. However, a great deal of the variability is lost when one moves from a 3-day average to a 14-day average;[18] valuable peaks and troughs in flow are lost with the longer averaging period. In the past, DFW has recommended a 3-day average with a 3-day lag[19] and the feasibility of this or a similar alternative should be evaluated in the SED.

The caps on flow proposed in the SED limit the benefits of high water years to aquatic life including the flushing of gravels used for spawning, and the creation of nursery habitat for juveniles in floodplains. These caps, which are ostensibly intended to protect against flooding, are set at the median unimpaired flows in each of the tributaries, which is a metric unrelated to flooding and well below the flood control capacity.[20] The caps are the equivalent of 31% of flood control capacity on the Stanislaus River, 23% of capacity on the Tuolumne River and 33% of capacity on the Merced River.[21] The State Board should reevaluate the proposed caps because they allow for the delivery of less than 35% UF in the rivers at times when there is no risk of flooding.

The State Board should consider allowing the water from some representative selection of high flow events, to pass though the system as instream flows.[22] This will help restore some of the natural amplitude of flow events and hydrogeomorphic conditions on the river that are essential for healthy plant and animal populations. As currently proposed, the State Board's approach to adaptive management allows for the shifting of flows from one time period to another and would thereby allow for the Coordinated Operations Group (COG) to send a pulse flow or storm event flow down the system. However, such a small total volume of water is available for management during the February to June period that the COG would not be able to generate a pulse flow of the magnitude recommended by DFW for fall-run Chinook salmon while also reserving a sufficient flow amount to maintain reasonable baseflows in the system for the remainder of the flow window.[23]

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[17] See EPA's listing of several segments in the lower San Joaquin River and the Tuolumne, Merced and Stanislaus as impaired by temperature per CWA §303(d), Final Decision Letter on California's 2008-2010 §303(d) List of Impaired Waters issued October 11, 2011 and available at: http://www.epa.gov/region9/water/tmdl/california.html

[18] Grober, Les and Rich Satkowski, State Water Resources Control Board, presentation at a UC Davis Center for Aquatic Biology and Aquiculture (CABA) Seminar, January 18, 2013, slides 24-27 http://deltacouncil.ca.gov/sites/default/files/documents/files/CABA_Grober_and_Satkowski.pdf

[19] pp 23; http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/cmmnts020811/010711cdibble.pdf

[20] SED, Appendix C, pp. 5-4.

[21] SED, Appendix F, pp.F.1-32 indicates flows will be capped at 2,500 cfs on the Stanislaus, 3,500 cfs on the Tuolumne and 2,000 cfs on the Merced, yet SED, Figure 6-3 and Table 6-3 indicate that the California Department of Water Resources believes the flood capacity is 8,000 cfs on the Stanislaus, 15,000 cfs on the Tuolumne and 6,000 cfs on the Merced.

[22] Dahm, Cliff, University of New Mexico, presentation titled "Examples of Managed Flow Regimes - Possible Models for the Delta?" at a UC Davis Center for Aquatic Biology and Aquiculture (CABA) Seminar, January 18, 2013, states that it is better to "retain *certain floods at full magnitude and to eliminate others entirely than to preserve all or most floods at diminished levels.*" http://deltacouncil.ca.gov/sites/default/files/documents/files/CABA_Dahm.pdf

[23] See DFW testimony on 3/20/13.

The Independent Science Board for the Delta emphasized the importance of combining a percentage of UF approach with other measures such as tributary-specific, minimal flow criteria.[24] In their 2010 Flow Criteria Report, DFW recommended criteria for the recovery of fall-run Chinook salmon comprising 1,500 cfs at Vernalis (January to mid-June) in critical years, with increasing stepwise recommendations reaching 6,314 cfs in wet years.[25] These recommended baseflows from DFW are well above the baseflow proposed by the State Board in the SED (1,000 cfs at Vernalis). As summarized in Chapter 3 of the SED, in critical and dry years, the flows proposed by the State Board do not meet the criteria recommended by DFW[26] nor flows recommended by FWS.[27] The State Board should re-evaluate the proposed baseflow and ensure protection for aquatic life during critical and dry years.

5. The proposed percentage of UF is significantly lower than UF standards adopted elsewhere in the United States and internationally.

Established scientists recommend implementing freshwater flow prescriptions for rivers and estuaries that mimic the pattern of the natural hydrographs in order to protect aquatic species with life histories adapted to such flow patterns.[28] However, the flows proposed by the State Board under the UF approach described in the SED are significantly lower than flow standards resulting from the use of the UF approach elsewhere. Richter et. al.[29] studied rivers in Florida, Michigan, Maine, and the European Union and found that the cumulative allowable depletion of flows ranged from 6 - 20% year-round or in low-flow months (the equivalent of 80-94% UF); and 20-35% in higher flow months (the equivalent of 65-80% UF). These scientists recommended the equivalent of no less than 90% UF to achieve a high-level of ecological protection, and no less than 80% UF to achieve a moderate level of ecological protection. They concluded that alterations below an 80% UF threshold "*will likely result in moderate to major changes in natural structure and ecosystem functions.*"

6. The State Board's proposed flows fall short of recommended targets to protect fall-run Chinook salmon

In 2010, the State Board identified three flow criteria for the San Joaquin River at Vernalis for halting declines and rebuilding fish populations.[30] These recommendations included a 60% UF (14-day average; February through June), the existing Bay-Delta WQCP flow objective for October, and an October pulse flow of 3,600 cfs (10-day minimum) to "*provide adequate temperature and DO conditions for adult salmon upstream migration, to reduce straying, improve gamete viability, and*

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[24] "*Worldwide, research is indicating that the percent of impaired flow should be used together with other criteria. Variability in flow, tributary-specific minimal critical flows (i.e., thresholds) and flow targets need further consideration. In particular, the combined importance of higher and more variable flows in the spring, and variables such as the timing of flows and the rate of change in flow, which have been demonstrated to provide important cues to fish and other wildlife, should be further evaluated.*" Delta Independent Science Board May 22, 2012 letter to Les Grober, Re: Flow Criteria that use Precent of Unimpaired Flow http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/docs/item8_att2_delta_isb_response.pdf

[25] California Department of Fish and Game, November 23, 2010, Quantifiable Biological Objectives and Flow Criteria for Aquatic and Terrestrial Species of Concern Dependent on the Delta (CDFG Flow Criteria), p. 105

[26] SED, pp. 3-12 – 3-13 and Figure 3-2

[27] SED, pp. 3-18 – 3-20 and Figure 3-6

[28] "*Major researchers involved in developing ecologically protective flow prescriptions concur that mimicking the unimpaired hydrographic conditions of a river is essential to protecting populations of native aquatic species and promoting natural ecological functions*". (Sparks 1995; Walker et al. 1995; Richter et al. 1996; Poff et al. 1997; Tharme and King 1998; Bunn and Arthington 2002; Richter et al. 2003; Tharme 2003; Poff et al. 2006; Poff et al. 2007; Brown and Bauer 2009). SED. Appendix C, p. 116

[29] Richter, B. D., Davis, M., Apse, C., and Konrad, C. P. 2011. A presumptive standard for environmental flow protection. River Research and Applications. DOI: 10.1002/rra.1511. http://eflownet.org/downloads/documents/Richter&al2011.pdf

[30] 2010 Flows Report, pp. 119-123

improve olfactory homing fidelity.[31] The first and last of these recommendations were identified as "Class A," meaning there was more robust scientific information to support specific numeric criteria than some other recommendations.

As noted in #3 above, since the 35% UF proposed in the SED would be achieved in the tributaries but not at Vernalis, the flow at Vernalis is expected to be lower.[32] The flows proposed in the SED almost halve the 60% UF that the State Board previously concluded was necessary to protect fall-run Chinook salmon, do not incorporate the recommendation for "Class A" pulse flows in the fall, and do not achieve DFW's flow recommendations to protect fall-run Chinook salmon.[33]

FWS identified flow targets[34] necessary to meet the doubling objective[35] for fall-run Chinook salmon in the Bay-Delta WQCP. The State Board did not analyze how frequently the 35% UF alternative in the SED meets these flow targets; however, the 40% UF alternative (which has 14% more flow than the proposed alternative) only meets these recommendations in 42% of modeled years.[36] In his external peer review, Dr. Olden, raised the concern that "*the rationale for examining 20-60% of unimpaired flow as the only scenarios is questionable, and it needlessly limits a full investigation of the flows required to achieve fish and wildlife beneficial use.*"[37] FWS recommended "*that a block of water should be allocated in each of the tributaries to manage flows on a daily basis so that water temperatures do not exceed 65F in the uppermost 5-mile reach between July 1 and mid October when the pulse flows begin.*"[38] The flows the State Board proposes also do not implement this latter recommendation as it falls outside the selected time frame for the objective.

7. The State Board's proposed flows do not protect all life stages of sensitive species.

The proposed narrative objective is written to protect "*native migratory San Joaquin River fish populations*" yet the proposed 35% UF is inconsistent with the protection of the existing migratory fish in the basin. The proposed flows are restricted to the February to June timeframe, and are currently based upon the biological needs and certain life stages of only a single species, fall-run Chinook salmon. The SED recognizes that other sensitive species, such as steelhead, and other life stages of fall-run Chinook salmon occupy the San Joaquin River watershed outside the proposed February to June window.[39] For example, the SED states that fall-run Chinook salmon in the San Joaquin River

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[31] 2010 Flows Report, pp 121

[32] SED, Appendix C and F

[33] Please refer to DFW's testimony to the State Board on March 20, 2013

[34] United States Fish and Wildlife Service, September 27, 2005, Recommended Streamflow Schedules To Meet the AFRP Doubling Goal in the San Joaquin River Basin (FWS 2005), pp. 27 available at: http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/docs/sjrf_sprtinfo/afrp_2005.pdf

[35] "*Water quality conditions shall be maintained, together with other measures in the watershed, sufficient to achieve a doubling of natural production of Chinook salmon from the average production of 1967-1991, consistent with the provisions of State and federal law.*" Bay-Delta WQCP, Table 3, pp. 14.

[36] SED, Figure 3-6, page 3-20, graph shows the flows are met in 33 out of 79 modeled years.

[37] "*Given the choice of scenarios to report (20-60% of unimpaired flow) is based on TBI/NRDC analysis suggesting 5,000 cfs threshold for salmon survival (p. 3-48) and that >50% is estimated to be needed to achieve doubling of salmon production, implies that the Technical Report is only considering potential flow schedules that may lead to salmon survival at current low levels and not salmon recovery into the future. Therefore, the rationale for examining 20-60% of unimpaired flow as the only scenarios is questionable, and it needlessly limits a full investigation of the flows required to achieve fish and wildlife beneficial use.*" p. 8 of Dr. Julian Olden's November 15, 2011 External Peer Review of "Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives." http://www.waterboards.ca.gov/water_issues/programs/peer_review/docs/sanjoaquin_river_flow/olden_pr.pdf

[38] FWS 2005, pp. 14-15

[39] SED pp. 7-14 - 7-18

watershed migrate October thru December, and spawn between November and January; and steelhead rear in the watershed for one to three years before migrating.[40]

The SED clearly identifies the deficiencies in the timeframe of the proposed flows for steelhead when it states that "although water temperatures for rearing steelhead would be improved in June, especially in the Tuolumne River, the benefits would likely be limited because the extent of suitable rearing habitat would continue to be limited by late summer water temperatures."[41] Although the SED analyzed the impact of proposed freshwater flows on maximum daily water temperatures, it did not analyze the impact of the proposed alternative (35% UF).[42] However, the analysis for the 40% UF alternative (which is 14% more flow than the proposed alternative), shows that the temperature would exceed suboptimal temperatures during six to nine months of an average year depending on location.[43] The SED also concludes that lethal temperatures would be reached for salmon in September on the Stanislaus, Tuolumne, and Merced Rivers; and in August, September, and October in the lower San Joaquin River (in an average year under the 40% UF alternative).[44] The restricted time frame of the State Board's proposed flows means important life stages of sensitive species are not protected.

Flows provided for salmon during the spring rearing cycle could go to waste if salmon populations are decimated by lethal temperatures in the fall as they migrate and spawn. By focusing on the spring months, EPA concurs with Dr. Olden's conclusion that the State Board is not fully accounting for the "range of ecologically-important flow events that occur over the entire year that are critical for salmon persistence and sustained productivity."[45] The WSE model assumes that water diverters and dam operators will not modify their behavior July through January to compensate for the new flow requirements, but experience indicates that this assumption is flawed. The State Board should analyze the indirect impacts of the proposed alternative to flow and aquatic life during the remainder of the year. Additionally, to safeguard against these indirect impacts, the State Board should provide adequate flows on a year round basis to protect aquatic life in all their life stages.

8. The State Board should ensure proposed flows are protective of downstream waters.

The State Board is addressing downstream aquatic life uses in Phase 2 of the updates to the Bay-Delta WQCP. Flow levels established during Phase 1 will influence the ability of the State to achieve Phase 2 goals. At this time, the State Board should consider the impact of proposed flows on downstream uses, or create a provision for reconsidering flow levels established during Phase 1 so adjustments can be made consistent with Phase 2 decisions.

The ability for salmonids to migrate past Vernalis, through the Delta to the ocean, and then return to spawn is essential to achieving sustainable populations, and is expressed as a goal of the proposed narrative objective.[46] Most of the freshwater from the San Joaquin River is diverted either upstream of

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[40] SED pp. 7-14 - 7-18
[41] SED, pp. 7-93
[42] SED, Chapter 20
[43] SED, pp. 7-95 - 7-96
[44] SED pp. 7-95 - 7-96
[45] *"In summary, although I agree that a fixed monthly prescription is not useful given spatial and temporal variation in runoff (p. 3-52), the Technical Report does not account for the range of ecologically- important flow events that occur over the entire year that are critical for salmon persistence and sustained productivity."* p. 7 of Dr. Julian Olden's November 15, 2011 External Peer Review of "Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives." http://www.waterboards.ca.gov/water_issues/programs/peer_review/docs/sanjoaquin_river_flow/olden_pr.pdf
[46] *"Maintain flow conditions from the San Joaquin River Watershed to the Delta at Vernalis, together with other reasonably controllable measure in the San Joaquin River Watershed, sufficient to support and maintain the* ***natural production of viable native San Joaquin River watershed fish populations migrating through the Delta.*** " Emphasis added, SED Appendix K, pp. 1

the study area for Phase 1, or as it enters the Delta, and this creates a condition whereby almost 40 kilometers of San Joaquin River channels contain water primarily from the Sacramento River in almost all months of almost all years.[47] This discontinuity between the San Joaquin River and the Pacific Ocean adversely affects the migratory ability of salmon and steelhead due to the absence of physical and chemical cues.[48] Increased flows are needed in the San Joaquin River basin to overcome this discontinuity, and if the problem cannot be adequately addressed now in Phase 1, then it should be revisited in Phase 2.

Similarly, the SED does not analyze the effects of the proposed flows and salinity objectives on achieving existing objectives in impaired downstream river segments, e.g., attaining the dissolved oxygen objective in Old and Middle Rivers and meeting the load allocations in the Lower San Joaquin River Dissolved Oxygen Total Maximum Daily Load (TMDL)[49] through which salmon must pass. Recent provisional data from the Stockton Deep Water Ship Channel, in the lower San Joaquin River, indicates that dissolved oxygen problems can arise in the fall at flows below 2,600 cfs.[50] The State Board should carefully analyze the recommendation for baseflows of 1,000 cfs at Vernalis and its impact on meeting the dissolved oxygen objective in downstream waters.

9. The State Board should analyze the potential impacts of relaxing the salinity objective on Delta hydrodynamics

The proposed seasonal salinity numerical objectives at four compliance locations in the southern Delta would change an existing objective of 0.7 and 1.0 deciSiemens per meter (dS/m) as a 30-day running average depending on the season, to 1.0 (dS/m) during all months of the year. The SED discounts, without significant analysis, the possibility that allowing salinity concentrations to rise in the southern Delta would have associated indirect impacts on instream temperatures and pollutant concentrations.[51] However, under current conditions waters are sometimes released by the U.S. Bureau of Reclamation to achieve the existing salinity objective and any change in this objective would therefore, ultimately impact flows, temperature, and pollutant concentrations in the south Delta. The SED should analyze these impacts; particularly the challenge of attaining the dissolved oxygen objective in Old and Middle Rivers and in the Stockton Deep Water Ship Channel; achieving adequate temperatures for salmonid migration; and managing the concentration and transport of selenium through the system.

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[47] Fleenor, William et al., February 15, 2010, On developing prescriptions for freshwater flows to sustain desirable fishes in the Sacramento-San Joaquin delta, available at: http://watershed.ucdavis.edu/pdf/Moyle_Fish_Flows_for_the_Delta_15feb2010.pdf

[48] Marston et al. December 2012. Delta Flow Factors Influencing Stray Rates of Escaping Adult San Joaquin River Fall-run Chinook Salmon (*Oncorhynchus tshawytscha*), San Francisco Estuary and Watershed Science, 10(4) Available at: http://escholarship.org/uc/item/6f88q6pf, see also 2010 Flows Report pp. 55-56

[49] Central Valley Regional Water Quality Control Board's San Joaquin River Dissolved Oxygen TMDL was approved by US EPA on February 27, 2007 and can be found at: http://www.waterboards.ca.gov/rwqcb5/water_issues/tmdl/central_valley_projects/san_joaquin_oxygen/index.shtml

[50] EPA compared the daily minimum dissolved oxygen at the Department of Water Resource's Stockton Deep Water Ship Channel monitoring station 1 meter below the surface located at Rough and Ready Island available here: http://cdec.water.ca.gov/cgi-progs/queryF?s=sdo
with the net flow data at USGS' Garwood Bridge Station available at:
http://waterdata.usgs.gov/nwis/dv?cb_72137=on&format=gif_default&begin_date=2009-06-06&end_date=2009-06-22&site_no=11304810&referred_module=sw
Looking at data from 2007-2012; after the City of Stockton installed a nitrification system at their wastewater treatment plan, EPA concludes that excursions below the 6 mg/L criteria occur in September-November when flows are below 2,600 cfs.

[51] SED, Chapter 5

10. The State Board should clarify the adaptive management framework and broaden the range of unimpaired flows.

The 25-45% UF range for adaptive management is too restrictive to achieve protections for aquatic life in all water year types. In critical years, FWS recommended 76%, 86%, and 97% UF for the Tuolumne, Merced and Stanislaus Rivers, respectively, to achieve the existing Bay-Delta WQCP salmon doubling objective.[52] The range as currently proposed in the SED does not allow the flexibility to protect sensitive species during critical years

EPA supports adaptive management and believes it to be a promising concept. However, in practice, the methodology for effective adaptive management has often fallen short. In part this shortcoming can be traced to inadequate application and design.[53] To be effective, the State Board should provide more detail on the annual and long-term adaptive management described in Appendix K. This should include clearly defining the resource objectives, the roles of the Implementation Workgroup and COG, the structure and function of the decision-making process, and the specific criteria that will be used to trigger management actions. The flexibility of these groups should be constrained so as not to undermine the proposed objective, and the decision-making structure should clarify the State Board's authority to avoid any appearance of transferring authority to a third party. The State Board should coordinate and integrate the adaptive management program developed in this Bay-Delta WQCP update with ongoing monitoring efforts such as the long-established Interagency Ecological Program (IEP) and the emerging Delta Regional Monitoring Program.

Thank you for this opportunity to review and comment on the SED for San Joaquin River Flows and Southern Delta Water Quality. We look forward to working with the State Board as it completes its review and revises and implements the Bay-Delta WQCP.

Sincerely,

Tim Vendlinski
Bay Delta Program Manager
Water Division

03/28/13

Cc:
Mark Gowdy, State Water Resources Control Board
Larry Lindsay, State Water Resources Control Board

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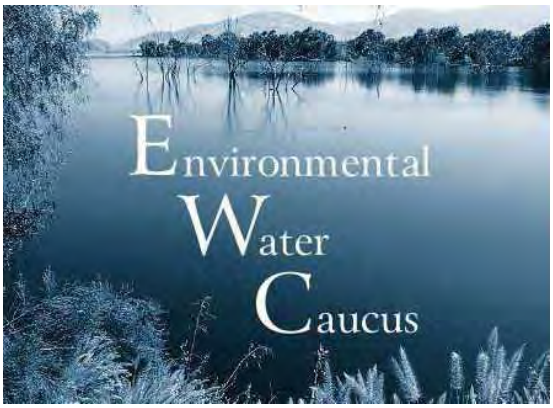
[52] FWS 2005, pp. 27

[53] *"Despite examples of the potential of an adaptive approach, contemporary examples of successful implementation are meager. In many ways, this seems paradoxical. On the one hand, adaptive management offers a compelling framework; i.e., learn from what you do and change practices accordingly. Yet, the literature and experience reveal a consistent conclusion; while adaptive management might be full of promise, generally it has fallen short on delivery. This dilemma is widely recognized (Halbert 1993, McLain and Lee 1996, Roe 1996, Stankey and Shindler 1997, Walters 1997), leading Lee (1999: 1) to conclude "adaptive management has been more influential, so far, as an idea than as a practical means of gaining insight into the behavior of ecosystems utilized and inhabited by humans."* p. 7 in Adaptive Management of Natural Resources: Theory, Concepts, and Management Institutions available at http://www.fs.fed.us/pnw/pubs/pnw_gtr654.pdf

EXHIBIT
2

to Conservation Groups' July 29, 2014,
Comment Letter on the BDCP DEIR/DEIS



RESPONSIBLE EXPORTS PLAN

Developed by the Environmental Water Caucus
April 2013

CONTENTS

INTRODUCTION

The consensus diagnosis for the Delta estuary is dire. The California Environmental Water Caucus prescribes more river flows and reduced fresh water exports to help the Delta recover. The EWC's plan demonstrates how water supply reliability can be improved while reducing exports from the Bay Delta Estuary. Many of our recommendations have been presented to the Delta Stewardship Council as part of Alternative 2 for the Delta Plan. We have now packaged this series of related actions into a single alternative for evaluation in any future NEPA or CEQA evaluations, or by the State Water Resources Control Board. The actions are largely based on the EWC report *California Water Solutions Now*, (www.ewccalifornia.org), which can be referenced for supporting details. This package of actions ("The RX Plan") represents the EWC alternative to the BDCP.

The RX Plan includes a unique combination of actions that will open the discussion for alternatives to the currently failed policies which continuously attempt to use water as though it were a limitless resource. *The RX Plan is about far more than just reduced exports*. The uniqueness of this Plan is that while it will reduce the quantity of water exported from the Bay Delta Estuary, in order to protect the health of the Estuary's habitat and fisheries with increased inflows and outflows, it also contains actions that will reduce the demand for water and increase supplies for exporters south of the Delta in order to compensate for the reduced south-of-Delta exports. It is the only extant plan that will modernize existing facilities in the Bay-Delta with improved fish screens at the South Delta, levees reinforced above the PL84-99 standard, and significantly increased flows in order to recover habitat and fish stocks, while avoiding the huge infrastructure costs of tunnels under the Delta. It will also provide increased self-reliance for south-of-Delta water users through inter-regional water transfers and south of Delta groundwater storage. The reinforced levees will provide increased reliability of the water supplies through the Delta. And it will accomplish the legislated goals of Estuary restoration and water reliability for billions of dollars less than currently contemplated plans.

California is in the grip of a water crisis of our own making. Like all problems that humans create, we have the potential to use the crisis as an opportunity to make positive and long-lasting changes in water management. The crisis is not a water shortage – California has already developed sufficient water supplies to take us well into this century – the real crisis is that this supply is not used efficiently or equitably for all Californians, nor is it used wisely to sustain the ecosystems that support us.

The opportunity – and the basis for our positive vision – is that economically and technologically feasible measures are readily available to provide the water needed for our future. Our vision includes providing clean water for families to drink, providing water to improve the environmental health of our once-magnificent rivers, recovering our fisheries from the edges of extinction, fostering healthy commercial and recreational fisheries and a thriving agricultural industry, ensuring that all California communities have access to safe and affordable

drinking water, and contributing significantly to the state's largest industries: recreation and tourism. [1] [2]

We need to make significant changes in our water management practices in order to provide the favorable outcomes that we describe in this report. These changes are based on the following Principles for a Comprehensive California Water Policy, developed by the Planning and Conservation League and the Environmental Justice Coalition for Water to guide California water policy reform.[3] They instruct that:

1. California must respect and adjust to meet the natural limits of its waters and waterways, including the limits imposed by climate change.
2. Every Californian has a right to safe, sufficient, affordable, and accessible drinking water.
3. California's ecosystems and the life they support have a right to clean water and to exist and thrive, for their own benefit and the benefit of future generations.
4. California must maximize environmentally sustainable local water self-sufficiency in all areas of the State, especially in the face of climate change.
5. The quality and health of California's water must be protected and enhanced through full implementation and enforcement of existing water quality, environmental, and land use regulations and other actions, and through new or more rigorous regulations and actions as needed.
6. All Californians must have immediate and ready access to information and the decision-making processes for water.
7. California must institute sustainable and equitable funding to ensure cost-effective water reliability and water quality solutions for the state where "cost-effective" includes environmental and social costs.
8. Groundwater and surface water management must be integrated, and water quality and quantity must be addressed on a watershed basis.
9. California's actions on water must respect the needs and interests of California Tribes, including those unrecognized Tribes in the State.
10. California must overhaul its existing, piecemeal water rights policies, which already over-allocate existing water and distribute rights without regard to equity.

A major influencing factor in future California water solutions will be the impact of global climate change. Based on the scientific information available, the natural limits of our water supply will become more obvious, the economics of water policies will change significantly, and our ability to provide sustainable water solutions for all Californians will become more challenging. Unless we manage our water more efficiently and account for the current and future effects of global climate change, the costs of providing reliable water to all users will overwhelm our ability to provide it.

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[1] California's Rivers A Public Trust Report. Prepared for the State Lands Commission. 1993. P. 47. http://www.slc.ca.gov/Reports/CA_Rivers_Rpt.html

[2] California Travel and Tourism Commission. California Travel Impacts by County. 2008 Preliminary State Estimates. Total direct travel spending alone was $96.7 billion in 2008. ES-2. http://tourism.visitcalifornia.com/media/uploads/files/editor/Research/CAImp08pfinal.pdf.

[3] Aquafornia: the California Water News Blog of the Water Education Foundation. http://aquafornia.com/archives/8374.

In addition to the commonly accepted NEPA and CEQA requirements for any Delta Estuary plan, there are five fundamental criteria that any plan for recovering the health of the Bay Delta Estuary and fish species must successfully meet. Those criteria are:

1. A water availability analysis must be conducted to align water needs with availability.
2. A benefit/cost analysis must be conducted to determine economic desirability of any plan.
3. Public trust and sociological values must be balanced against the value of water exports.
4. Existing water quality regulations must be enforced in order to recover the Estuary.
5. The plan must meet the NCCP *recovery* standard for fish species.

All of the current and past plans for the Delta Estuary have failed, partly because the responsible state and federal authorities have refused to apply or to test their projects with these above criteria. The EWC would welcome this Responsible Exports Plan being judged by these pragmatic and acceptable criteria.

PREFACE

There are several overarching issues that run through all our efforts to develop sustainable, effective, and equitable water policies. They are: climate change, periodic drought, environmental justice, the preservation of cultural traditions by Native Americans, the precautionary principle, and population pressures. They are covered in this preface to avoid repetition in each of the individual actions described below.

Climate Change. Climate models indicate that climate change is already affecting our ability to meet all or most of the goals enumerated in this report and must be integrated into the implementation of the recommendations. The main considerations are:

- More precipitation will fall as rain rather than snow and will result in earlier runoff than in the past.[4]
- Less snow will mean that the current springtime melt and runoff will be reduced in volume.
- Overall, average precipitation and river flow are expected to decrease. A recent paper in *Frontiers in Ecology and the Environment* [5] predicts that the average Sacramento River flow will decrease by about 20 percent by the 2050s.
- Precipitation patterns are expected to become more erratic including both prolonged periods of drought and greater risks of flooding.
- Sea level rise will impact flows and operations within the Delta, endanger fragile Delta levees, and increase the salinity concentration of Suisun Bay and the Delta, as well as increase the salinity concentrations of some coastal groundwater aquifers.

These changing conditions could affect all aspects of water resource management, including design and operational assumptions about resource supplies, system demands, performance requirements, and operational constraints. To address these challenges, we must enhance the resiliency of natural systems and improve the reliability and flexibility of the water management systems. Specific recommendations are proposed as part of this document.

Periodic Drought. Drought is a consistent and recurrent part of California's climate. Multiple-year droughts have occurred three times during the last four decades.[6] In creating a statewide drought water "bank," there is a clear need for a long-term version of a drought water bank. California's experience of multiple-year droughts should force state and local water and land use authorities to recognize the recurrence of drought periods and to put more effective uses of water

[4] National Wildlife Federation and the Planning and Conservation League Foundation. On the Edge: Protecting California's Fish and Waterfowl from Global Warming. 10-11. www.pcl.org/projects/globalwarming.html.

[5] Margaret A Palmer, Catherine A Reidy Liermann, Christer Nilsson, Martina Flörke, Joseph Alcamo, P Sam Lake, Nick Bond (2008) Climate change and the world's river basins: anticipating management options. Frontiers in Ecology and the Environment: Vol. 6, No. 2, pp. 81-89.

[6] California Drought Update. May 29, 2009. P.5. http://www.water.ca.gov/drought/docs/drought_update.pdf.

in place permanently. The Governor's current policy on water conservation[7] should be mandatory for all water districts and become a permanent part of water policy, rather than a response to current dry conditions. Only by educating the public, recognizing limits, and learning to use the water we do have more efficiently can Californians expect to handle future drought conditions reasonably.

Environmental Justice. It is imperative that water policies and practices are designed to avoid compounding existing or creating new disproportionately adverse effects on low income Californians and communities of color. Conversely, water policies and practices must anticipate and prepare for anticipated disproportionately adverse effects and to provide equitable benefits to these communities, particularly those afflicted by persistent poverty and which have been neglected historically. For example, water moving south through the California Aqueduct and the Delta Mendota Canal flow past small valley towns that lack adequate or healthy water supplies. We know that under conditions of climate change and drought, catastrophic environmental changes will occur in California. Environmental justice requires that water policies and practices designed to account for climate change and drought include a special focus on preventing catastrophic environmental or economic impacts on environmental justice communities. Other, specific environmental justice water issues include:

- Access to safe, affordable water for basic human needs.
- Access to sufficient wastewater infrastructure that protects water quality and prevents overflows and other public health threats.
- Restoration of water quality so that environmental justice communities can safely feed their families the fish they catch in local waters to supplement their families' diets.
- Equitable access to water resources for recreation.
- Equitable access to statewide planning and funding to ensure that in addition to safe affordable water, and wastewater services, environmental justice communities benefit equitably from improved conservation, water recycling and other future water innovations that improve efficiency and water quality.
- Mitigation of negative impacts from the inevitable reallocation of a portion of the water currently used in agriculture – the state's biggest water use sector – to water for cities and the environment. Reallocation will reduce irrigated acreage, the number of farm-related jobs, and local tax revenues.
- Mitigation of third party impacts, including impacts on farm workers, associated with land conversion.
- Ideally, mitigation will be based on a comprehensive plan to transition local rural economies to new industries such as solar farms and other clean energy business models and provide the necessary job training and policies necessary to enable environmental justice community members to achieve the transition.
- Protection from the impacts of floods and levee breaks, including provisions for emergency and long-term assistance to renters displaced by floodwaters.

[7] 20x2020 Water Conservation Plan DRAFT, April 30, 2009. Executive Summary. http://www.swrcb.ca.gov/water_issues/hot_topics/20x2020/index.shtml.

Native American Traditions. Many of California's Historical Tribes have a deep and intrinsic relationship with California's rivers, lakes, streams and springs. This relationship goes to the very core of their origin, cultural, and spiritual beliefs. Many of the Tribes consider the fish that reside in these waters as gifts from their creator, and the fish are necessary to the continued survival of their people and their cultural and spiritual beliefs. Historically, California's water policy has failed to recognize the importance of the needs of one of its greatest natural and cultural resources - its Historical Tribes - and has only sought to manage water for economic gain. California water policies and practices must change to provide sufficient water to support fisheries and their habitats for both cultural and economic sustainability, and provide for the restoration of and access to those fisheries for its Native Peoples.

The Precautionary Principle. The Precautionary Principle states that: "Where there is scientific evidence that serious harm might result from a proposed action but there is no certainty that it will, the precautionary principle requires that in such situations action be taken to avoid or mitigate the potential harm, even *before* there is scientific proof that it will occur."[8] Numerous actions recommended in this report fit that criteria and the precautionary principle is therefore implicit throughout the report recommendations.

Population Pressures. California's human population is expected to continue to increase from the current population of more than 37 million to 49 million by 2030 and 59 million by 2050.[9] In 2008, 75 percent of the population growth came from natural growth (births) and 25 percent came from immigration, both foreign and interstate. In each of the data sources utilized in this report, population increases have been factored into the conclusions, unless otherwise noted.

[8] A. I. Schafer, S. Beder. Role of the precautionary principle in water recycling. University of Wollongong. 2006. 1.1.

[9] California Department of Finance, Demographic Research Unit. 2009. Table 1. http://www.dof.ca.gov/research/demographic/reports/#projections.

THE EWC RESPONSIBLE EXPORTS PLAN ACTIONS

The main actions included in The Plan are underlined and described below:

1. Reduce Exports To No More Than 3MAF In All Years, In Keeping With SWRCB Flows Criteria.

Numerous scientific and legal investigations have identified Delta export pumping by the state and federal projects as one of the primary causes of the decline of the health of the Delta estuary and its fish. They include the California Fish and Game Commission's 2009 listing of longfin smelt under the Endangered Species Act; the US Fish and Wildlife Service's 2008 Biological Opinion for Delta smelt; the National Marine Service June 4, 2009 Biological Opinion on Central Valley Project (CVP) and State Water Project (SWP) Operations, the State Water Resources Control Board's Bay-Delta Water Quality Control Plan and Water Rights Decision 1641; the CALFED Bay-Delta Program's 2000 Ecosystem Restoration Program Plan; and the Central Valley Project Improvement Act's Anadromous Fish Restoration Program.

The guidelines of the Fish and Wildlife Service's Biological Opinion require reduced pumping in order to minimize reverse flows and the resultant fish kills during times of the year when Delta Smelt are spawning and the young larvae and juveniles are present.

The long-term decline of the Delta smelt coincides with large increases in freshwater exports out of the Delta by the state and federally operated water projects, (Figure 1). CALFED's Ecosystem Restoration Program reminds us that "the more water left in the system (i.e., that which flows through the Delta into Suisun Bay and eventually the ocean), the greater the health of the estuary overall; there is no such thing as 'too much water' for the environment."[10]

The main input to the Delta – the Sacramento River, which provides 70 percent of Delta inflow in average years[11] – does not provide sufficient water for all the present claimants except in wet years, and climate change is expected to decrease flows in the future. The system cannot provide full delivery of water to the most junior CVP and SWP contract holders in most years. Recent court-ordered water export limits that protect endangered fish species, the continuously deteriorating Delta earthen levees and the potential adverse effects of climate change on water supplies combine to make Delta water supply reliability a roll of the dice.

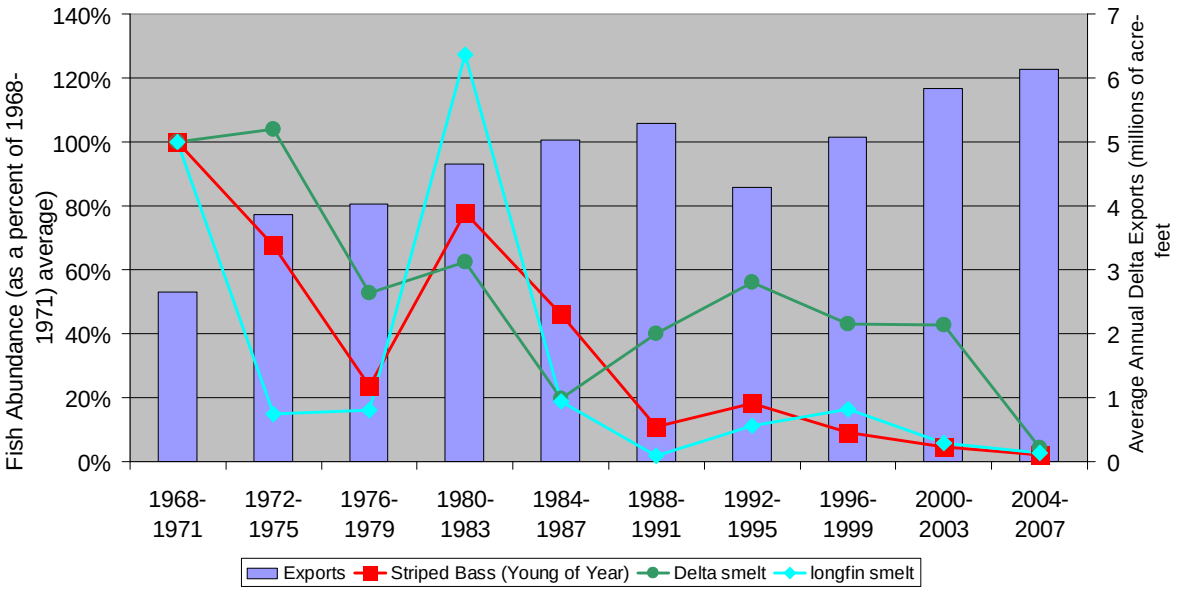
[10] CALFED Ecosystem Restoration Program. 2008. Stage 2 Implementation Draft. P. 23. http://www.delta.dfg.ca.gov/erp/reports_docs.asp

[11] Delta Vision Final Report. 2008. State of California Resources Agency. P. 41. http://deltavision.ca.gov/BlueRibbonTaskForce/FinalVision/Delta_Vision_Final.pdf .

According to the recent National Marine Services Biological Opinion, the proposed actions by the CVP and SWP to increase export levels will exacerbate problems in the Delta.[12] We do not believe that the water exporters' goals of maintaining or increasing Delta exports are attainable; neither are the junior water rights holders' expectations that they should have a full contracted water supply each year, especially in view of the collapse of the Delta's fisheries and the impacts of climate change.

Figure 1

Historic Delta Exports and Estuarine Fish Populations



Source: Environmental Defense Fund.[13] Original source is California Data Exchange Center and California Department of Fish & Game - Midwater Trawl Data

Strategic alternatives to the recent high levels of Delta water exports should now be the highest priority considerations for the state's water planning – especially in tandem with aggressive water use efficiency measures. The two are closely linked.

Over time, annual Delta outflows have been reduced on average by one half,[14] with associated declines in native fish abundance. Export pumping from the Delta is a major cause of reduced outflows, but not the only one. Diversions for CVP contractors upstream of the Delta,

[12] National Marine Fisheries Service, Southwest Region. June 4, 2009. Biological Opinion And Conference Opinion On The Long-Term Operations Of The Central Valley Project And State Water Project. Page 629. http://swr.ucsd.edu/ocap/NMFS_Biological_and_Conference_Opinion_on_the_Long-Term_Operations_of_the_CVP_and_SWP.pdf.

[13] Environmental Defense Fund. 2008. Finding the Balance. P. 3. http://www.edf.org/documents/8093_CA_Finding_Balance_2008.pdf

[14] CALFED Ecosystem Restoration Program. 2008. Stage 2 Implementation Draft. P. 21. http://www.delta.dfg.ca.gov/erp/reports_docs.asp

combined with "non-project" (that is, non-federal, non-state) diversions, account for a significant portion of the reduction in outflow. In fact, 31 percent of upstream water is diverted annually before reaching the Delta.[15] In the 1990s, under the threat of federal intervention, California increased the required outflow to the Bay, but not enough to restore the Delta ecosystem or prevent further declines.

Over the years, a number of processes have identified the need to dramatically improve outflows in order to recover listed species to a sustainable level and restore ecosystems in the Bay-Delta. From 1988, when the State Water Resources Control Board (SWRCB) proposed – but withdrew without public discussion – standards that would have required an average increase in outflow of 1.5 million acre-feet over the lower diversion levels of the period before the late 1980s, to 2009, when the California Legislature adopted a new policy of reducing reliance on the Delta for water supply uses, the need for greater outflow and reduced exports has been acknowledged – but not achieved. In 2010, the State Board is required to develop flow criteria that will fully protect public trust resources in the Delta. In all these years, no information has been developed that would contradict the Board's 1992 draft finding that maximum Delta pumping in wet years should not exceed 2.65 million acre-feet in order to provide the necessary outflows to protect fish and the Bay-Delta ecosystems.[16] The rebuttable presumption, consistent with the evidence of the last two decades and with the new state policy to reduce Delta water supply reliance, is that a total export number of no more than 3 million acre-feet in all water year types is prudent. The EWC organizations believe that a number at or near this level should now be used by the state and federal governments in planning and permitting future Delta export operations – with or without a Peripheral Canal – in order to promote the recovery of the Delta's ecology and its fishery resources and to provide healthy Delta outflows to San Pablo and San Francisco Bays.

The Delta Flows Criteria promulgated by the State Water Resources Control Board (SWRCB) clearly indicates that the state has reached – and exceeded – the amount of water that can responsibly be diverted from the Bay Delta and Estuary. As a result, this plan anticipates future limitations on Delta exports below the level of the 2000-2007 time periods in its plan to meet Delta ecosystem restoration goals. The recent PPIC report reinforces this: "given the extreme environmental degradation of this region, water users must be prepared to take less water from the Delta, at least until endangered fish populations recover."

As indicated in the recent SWRCB report,[17] in order to preserve the attributes of a natural variable system to which native fish species are adapted, many of the criteria developed by the State Water Board are crafted as percentages of natural or unimpaired flows. These criteria include:

[15] CALFED Ecosystem Restoration Program. 2008. Stage 2 Implementation Draft. P. 20. http://www.delta.dfg.ca.gov/erp/reports_docs.asp

[16] California Department of Fish and Game. 1992. Testimony on the Sacramento-San Joaquin Estuary to SWRCB Hearings on Bay Delta Water Quality Hearings. Page 11.

[17] State Water Resources Control Board and California Environmental Protection Agency. DRAFT Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem. July 2010. Pp. 5.

- 75% of unimpaired Delta outflow from January through June;
- 75% of unimpaired Sacramento River inflow from November through June;
- 60% of unimpaired San Joaquin River inflow from February through June.
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This compares with the historic flows over the last 18 to 22 years, which have been:

- About 50% on average from April through June for Sacramento River inflows;
- Approximately 30% in drier years to almost 100% of unimpaired flows in wetter years for Delta outflows;
- Approximately 20% in drier years to almost 50% in wetter years for San Joaquin River inflows.

In 2014, the State Board is required to develop flow criteria that will fully protect public trust resources in the Delta and Estuary. In all the years since 1988, no information has been developed that would contradict the Board's 1992 draft finding that maximum Delta pumping in wet years should not exceed 2.65 million acre-feet in order to provide the necessary outflows to protect fish and the Bay-Delta and Estuary ecosystems. The rebuttable presumption, consistent with the evidence of the last two decades and with the new state policy to reduce Delta water supply reliance, is that a total export number of no more than 3 million acre-feet in all water year types, except for drought years, is prudent.

The current approach of managing the Delta for water supply will almost certainly lead to intense pressures to make increased exports the major goal of a Peripheral Canal or tunnel while the health of the Delta and Estuary will be a lower priority. One of the main objectives of this Responsible Exports Plan is to decrease the physical vulnerability and increase the predictability of Delta supplies, not to increase average annual Delta exports. The current fallacy of the BDCP to increase exports while somehow recovering fish species and ecosystems leads directly to a warped scientific program as pointed out by The Bay Institute in their recent Briefing Paper on the BDCP Effects Analysis.[18]

Recent letters from the EPA and the Bureau of Reclamation indicate that the EPA believes that the (BDCP) EIS/EIR will need to include a significant analysis of alternatives reflecting reduced Delta inflow and reduced exports[19] and that a significant increase in exports out of the Delta is inconsistent with recent state legislation (to reduce reliance on the Delta). [20]

Changing the infrastructure will not solve the problem of a shrinking Delta water supply. A vigorous debate is now underway over whether a new isolated conveyance facility to move water around or under the Delta should be constructed – a revised version of the Peripheral Canal. Even those who support a new facility (and dual conveyance) as a solution to improve

[18] The Bay Institute and Defenders of Wildlife. The BDCP Effects Analysis, Briefing Paper. February 2012. http://www.bay.org/assets/BDCP%20EA%20Briefing%20Paper%2022912.pdf

[19] http://www.epa.gov/region9/water/watershed/sfbaydelta/pdf/EPA_Comments_BDCP_3rdNO_051409.pdf

[20] http://www.epa.gov/region9/water/watershed/sfbay-delta/pdf/EpaR9CommentsBdcpPurpStmt6-10-2010.pdf

environmental conditions and water supply reliability, including the Public Policy Institute,[21] the Delta Vision Blue Ribbon Task Force, and some environmental groups, do not believe that constructing this new facility will generate any new water. Whether or not a new conveyance facility is approved and built, the inexorable trend will be for the reliability of north-to-south water transfers through or around the Delta to decline, and for water users who currently rely on Delta exports to seek alternative sources of supply and to increase their conservation and reuse of that supply.

According to the Bay Delta Conservation Plan,[22] the version of the Peripheral Canal now under consideration would have the capacity to export 9,000 to 15,000 cubic feet of water per second (112,000 gallons per second) from a series of three to five massive intake structures on the Sacramento River north of the Delta. This almost exactly matches the existing capacity of the combined state and federal pumps. The current approach of managing the Delta for water supply will almost certainly lead to intense pressures to make increased exports the major goal of a Peripheral Canal while the health of the Delta will be a lower priority.

Reduced dependence on the Delta by south-of-Delta water users would also obviate the need for new conveyance around or under the Delta (a Peripheral Canal or tunnel) and new surface storage reservoirs, avoiding costs of perhaps tens of billions of dollars for taxpayers and the potential for stranded assets resulting from climate change and sea level rise in the Bay-Delta and Estuary. This reorientation will undoubtedly require some south-of-Delta infrastructure enhancements, but not nearly to the magnitude of costs for a Peripheral Canal or tunnels and a new reservoir north of the Delta.

Climate change projections indicate that over the longer term global warming will reduce the total amount of precipitation, including significant reductions in Sacramento River water. There is no indication that this has been factored into present plans, and it is possible that new conveyance for Sacramento River water may become a stranded asset.

Implementation and Funding. Implementation (and funding, if necessary) for the level of reduced exports will depend on the results of the State Water Resources Control Board hearings on Delta flows, which are scheduled to be completed during 2014. Subsequent to those hearings, implementation and funding plans will most likely fall within the purview of the state legislature.

[21] Public Policy Institute of California. 2008. Comparing Futures for the Sacramento-San Joaquin Delta. P. 123-124. http://www.ppic.org/content/pubs/report/R_708EHR.pdf

[22] Bay Development Conservation Plan. http://www.baydeltaconservationplan.com/CurrentDocumentsLibrary/Chapter_3_Conservation_Strategy_Combined_v2.pdf

2. Expand Statewide Water Efficiency And Demand Reduction Programs Beyond The Current 20/20 Program And Maximize Regional Self-Sufficiency In Accordance With The 2009 Delta Reform Act.

California has developed huge amounts of water for our cities and farms. Urban users consume 8.7 million acre-feet of water, and agriculture uses 34 million acre-feet in a typical year. (An acre-foot of water is the volume of water required to cover one acre of surface area to a depth of one foot, which is 325,900 gallons.) California has 1,400 major reservoirs with a combined storage capacity of 40 million acre-feet, thousands of miles of canals and enormous energy-consuming pumps to move the water around the state.

Despite all this abundance, there are fears of monumental water shortages, amplified by periodic drought conditions and climate change. One-third of water years in California since 1906 are considered "dry or critical" by the California Department of Water Resources; since 1960, dry or critical years have occurred 37 percent of the time, the increased frequency probably reflecting effects of our warming climate.[23] The worst and longest modern droughts have occurred since 1976. Farmers are concerned that they will be driven out of business for lack of water. In response, politicians want to build more major dams and canals to store and move more water at a time when climate change will most likely make less water available. More than 90 percent of our rivers have already been diverted for our use and publicly subsidized farm water has created an insatiable appetite for more. In view of the critical nature of water supply, irrigating water-intensive crops and drainage-impaired lands with huge amounts of water hardly fits a 21st century definition of the "beneficial and reasonable use" criteria called for in state law.

Recommendations made by the Environmental Water Caucus to the Delta Stewardship Council included an aggressive urban water conservation and efficiency program – more aggressive and of longer duration than the 20/20 program – and included both urban and agricultural users as a necessary component for reducing reliance on the Delta and achieving the water supply reliability goals for south-of-Delta users. A more aggressive conservation program also supports the goal of the reduced exports level of this alternative. We intend to continue our advocacy for this type of program with the Delta Stewardship Council.

Overwhelming evidence shows that a suite of aggressive conservation and water efficiency actions will reduce overall demand and provide cost effective increases in available and reliable water supply. These measures will handle California's water needs well into the foreseeable future and will do so at far less financial and environmental cost than constructing more storage dams and reservoirs. This conclusion is reinforced by the current State Water Plan (Bulletin 160-09), by the Bay Institute's "Collateral Damage" report, and by actual experience in urban areas and farms.

[23] California Data Exchange Center "WSIHIST," Department of Water Resources. http://cdec.water.ca.gov/cgi-progs/iodir/wsihist

Southern California, with its huge urban populations, can provide the major conservation impetus for water savings and demand reduction, as highlighted by the "Where Will We Get the Water?" report produced by the Los Angeles Economic Development Corporation. [24] This report shows a potential savings and demand reduction combination of approximately 1,700,000 million acre feet. These are potential savings that can be achieved through three main measures: urban conservation, recycling, and storm water capture. The potential recycling savings are larger with more investment in recycling facilities and potential future regulations related to outdoor urban usage. Southern California should clearly be the main focus for urban conservation measures.

These water efficiency and water use reduction actions are:

- Urban Water Conservation – including installing low-flow toilets and showerheads, high-efficiency clothes washers, retrofit-on-resale programs, rainwater harvest, weather-based irrigation controllers, reducing water for landscaping via drip and xeriscape, more efficient commercial and industrial cooling equipment, and tiered price structures.[25] According to the 2009 State Water Plan, total urban water demand can be reduced by 2.1 million acre-feet with these measures.[26] The referenced Los Angeles Economic Development Corporation report found that in Los Angeles, Orange, San Bernardino, San Diego, Riverside and Ventura counties, "urban water conservation could have an impact equivalent to adding more than 1 million acre-feet of water to the regional supply" (about 25 percent of current annual use). The same LAEDC report shows that urban conservation is by far the most economical approach, at $210 per acre-foot, and especially compared with new surface storage at $760 to $1,400 per acre-foot.
- Urban Conservation Rate Structures – including the establishment of mandatory rate structures within the Urban Best Management Practices that strongly penalize excessive use and reward low water usage customers with lower rates, with the lowest being a lifeline rate to provide water for low income and low-water-using ratepayers. The savings that result from pricing policies are included in the 2.1 million acre-feet reduction cited above.
- Agricultural Water Conservation – including the continuing trend towards use of drip, micro sprinklers and similar higher technology irrigation, reduced deficit irrigation, transition to less water-intensive crops, reduced overall farmland acreage, elimination of the irrigation of polluted farmland, and tiered price structures. Conservation measures also include the elimination of indirect water subsidies provided to agriculture for Central Valley Project (CVP) water, which will drive some of the efficiencies shown in Figure 1.

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[24] Los Angeles County Economic Development Corporation (LAEDC). 2008. Where Will We Get the Water? Assessing Southern California's Future Water Strategies. P 6. http://www.laedc.org/consulting/projects/2008_SoCalWaterStrategies.pdf.

[25] A detailed treatment of urban water conservation is contained in *Waste Not, Want Not: The Potential for Urban Water Conservation in California*, by the Pacific Institute. http://www.pacinst.org/reports/urban_usage/waste_not_want_not_full_report.pdf.

[26] California Department of Water Resources. Update 2009. California Water Plan Update. Bulletin 160-09. V-2, P3-23. http://www.waterplan.water.ca.gov/docs/cwpu2009/0310final/v2c03_urbwtruse_cwp2009.pdf.

Demand reduction of as much as 5 million acre-feet per year could be achieved by 2030, according to Pacific Institute's *California Water 2030: An Efficient Future* report.[27]

- Recycled Water – including the treatment and reuse of urban wastewater, gray water, and storm water, and achievement of the State Water Resources Board goal of increasing water recycling by at least an additional 2 million acre-feet per year by 2030. The 2009 State Water Plan indicates a figure of 2.25 million acre-feet that could be recovered. The LAEDC report shows recycled water costs $1,000 per acre-foot.
- Groundwater Treatment, Demineralization and Desalination – including the treatment of contaminated groundwater and the use of groundwater desalination. The cost of groundwater desalination ranges from $750 to $1,200 per acre-foot.
- Conjunctive Management – which engages the principles of conjunctive water use (the planned release of surface stored water to recharge groundwater basins), where surface water and groundwater are used in combination to improve water availability and reliability. It also includes important components of groundwater management such as monitoring, evaluation of monitoring data to develop local management objectives, and use of monitoring data to establish and enforce local management policies. Now that the value of maintaining integrated, healthy hydrologic systems for ecological and economic purposes is well known, the use of conjunctive management should give priority to seriously disrupted groundwater basins. Without scientific studies that are needed to support conjunctive water management, or judicial oversight in some cases, many aquifers and surrounding groundwater can be harmed by the biggest users.
- Storm Water Recapture and Reuse – The 2008 Scoping Plan for California's Global Warming Solutions Act of 2006 promotes storm water collection and reuse. The plan finds that up to 333,000 acre-feet of storm water could be captured annually for reuse in urban southern California alone.[28] The LAEDC report also found the potential for "hundreds of thousands of acre-feet" of water from storm water capture and reuse in southern California counties.[29] The Los Angeles and San Gabriel Watershed Council has estimated that if 80 percent of the rainfall that falls on just a quarter of the urban area within the watershed (15 percent of the total watershed) were captured and reused, total runoff would be reduced by about 30 percent. That translates into a new supply of 132,000 acre-feet of water per year or enough to supply 800,000 people for a year.[30]

[27] Pacific Institute. California Water 2030: An Efficient Future. September 2005. http://www.pacinst.org/reports/california_water_2030/ca_water_2030.pdf

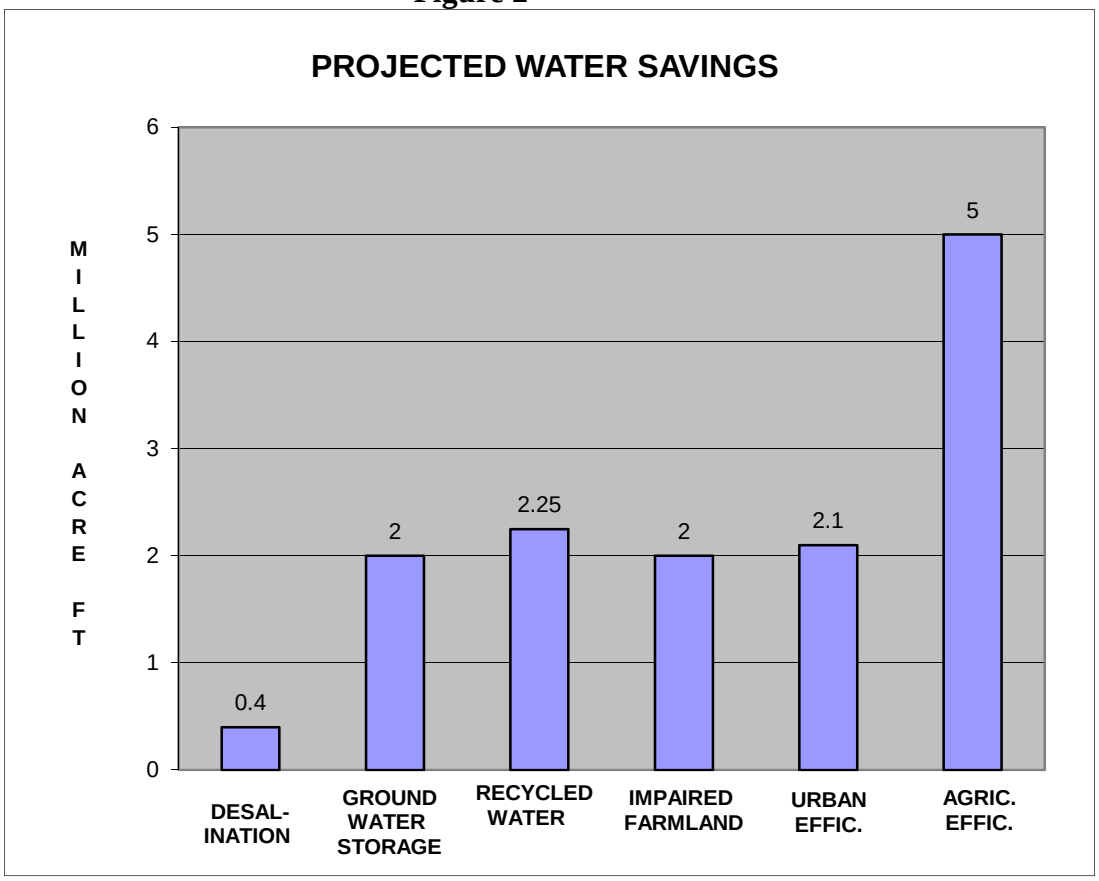
[28] Climate Change Scoping Plan Appendices Volume I. December 2008. Pursuant to AB 32 The California Global Warming Solutions Act of 2006. C-135. http://www.arb.ca.gov/cc/scopingplan/document/appendices_volume1.pdf.

[29] Los Angeles County Economic Development Corporation (LAEDC). 2008. Where Will We Get the Water? Assessing Southern California's Future Water Strategies. P 32-33. http://www.laedc.org/consulting/projects/2008_SoCalWaterStrategies.pdf.

[30] California Department of Water Resources. Update 2005. California Water Plan Update. Bulletin 160-05. P..21-3. http://www.waterplan.water.ca.gov/previous/cwpu2005/index.cfm

Based on data from the State Water Plan (Bulletins 160-05 and 160-09),[31] the Planning and Conservation League (PCL)[32] and the Pacific Institute, [33] the savings that can be achieved from these efficiency scenarios are estimated to be 13 million acre-feet per year (Figure 2). Perhaps the most authoritative report on the subject, the Pacific Institute's *California Water 2030: An Efficient Future* shows that overall statewide water usage can be reduced by 20 percent below 2000 levels – given aggressive efforts to conserve and reduce usage with readily available

Figure 2



technology and no decrease in economic activity. The urban water savings of approximately 5 million acre-feet a year (when including recycled municipal water and part of the groundwater

[31] California Department of Water Resources. Update 2005. California Water Plan Update. Bulletin 160-05. V2 1-5. http://www.waterplan.water.ca.gov/previous/cwpu2005/index.cfm

[32] Planning and Conservation League. 2004. Investment Strategy for California Water. P. 8-11. http://www.pcl.org/projects/investmentstrategy.html

[33] Pacific Institute. 2005. California Water 2030: An Efficient Future. ES-2. http://www.pacinst.org/reports/california_water_2030/ca_water_2030.pdf

storage) shown in Figure 1 is enough water to support a population growth of almost 30,000,000 people. According to the California Water Plan Update 2009, the state's population can be expected to increase by 22,000,000 over the next 40 years if current population trends hold. Clearly, a well-managed future water supply to take us to 2050 is within reach with current supplies and with an aggressive water conservation program.

In order to translate these aggressive efficiency measures into actual demand reductions, we need heightened public awareness of these targets and focused state oversight and coordination of local and statewide actions. Existing success stories from urban communities and on-farm operations reinforce the savings potentials and the need for efficiency-driven policies; they are described in detail in a number of the references cited in this report. The Governor's recent mandate for a 20 percent reduction in per capita urban water use by 2020 is the kind of action that will help this effort, although it may prove insufficient in view of projected population growth. Under the Governor's plan, per capita urban use would be reduced from the current 192 gallons per capita daily to 154 gallons, resulting in an annual savings of 1.74 million acre-feet. The projected water savings shown in Figure 1 are more aggressive than the Governor's plan. A similar mandate should be extended to agriculture, since agriculture uses more than three quarters of the state's developed water supplies. Water savings through efficiency measures can result in direct reductions in the volume of Delta exports since most of the savings would occur in cities and farms south of the Delta. These water savings are necessary to reduce the exports and to restore the stream flows called for in this plan.

The Natural Resources Defense Council's report *Transforming Water Use: A California Water Efficiency Agenda for the 21st Century* cites the state's successes in energy efficiency as a model for water efficiency while noting that the state lags far behind in water efficiency policies, programs, and funding. A key component of the success in energy efficiency has been the development of a priority system called a Loading Order.[34] As applied to water policy, a Loading Order system would require demand reductions through improved water efficiency to be the first priority in addressing water supply, the second priority would be developing alternative sources including water recycling, groundwater clean-up and conjunctive use programs (with priority going to seriously disrupted hydrologic systems or where judicial oversight occurs), and third would be the use of more traditional supply options. A Loading Order approach, if applied to statewide, regional, and local water plans, would shift the emphasis to the more efficient and cost effective approaches advocated in this report. Reducing water use through conservation efficiencies or water recycling also has a favorable impact on energy use, as pointed out by *Energy Down the Drain*, a report produced by the Natural Resources Defense Council and the Pacific Institute.[35] The report makes a strong case for the link between water and energy efficiencies. All of these conservation and efficiency methods are known to produce available water at significantly less cost than constructing new storage dams and reservoirs—the third

[34] Natural Resources Defense Council. 2007. Transforming Water Use: A California Water Efficiency Agenda for the 21st Century. P. 2. www.deltavision.ca.gov/BlueRibbonTaskForce/Feb28_29/Handouts/BRTF_Item_5A_HO2.pdf.

[35] Natural Resources Defense Council and Pacific Institute. 2004. Energy Down the Drain. ES-v. http://www.pacinst.org/reports/energy_and_water/index.htm.

option in the Loading Order. According to the Los Angeles County Economic Development Corporation (LAEDC) report,[36] water produced from the proposed Sites and Temperance Flat Reservoirs would cost $760 to $1,400 per acre-foot, while conserved or recycled water typically costs between $210 and $1,000 per acre-foot. New surface storage is by far the highest cost alternative per acre-foot of water for all the alternatives examined by the Legislative Analysts Office (LAO) report *California Water: An LAO Primer*,[37] while providing less total annual yield than most alternatives. Statewide, the costs of all of these efficiency measures will in all probability not exceed the potential $78 billion price tag for the various Peripheral Canal and new surface storage proposals.[38] For all of these reasons – as well as the historically ecosystem damaging impacts of major dams – EWC member organizations oppose the construction of Sites and Temperance Flat Reservoirs and the raising of Shasta Dam in favor of the more effective efficiency measures described above. Raising Shasta Dam on the Sacramento River would also be illegal because of its impact on the Wild River status of the McCloud River and its damaging impact on Winnemen Wintu sacred areas.

Implementation Considerations. Implementation requires legislative to accomplish the following:

- Establish a statewide oversight unit responsible for the coordination of the level of supply enhancements and demand reductions called for in this report. This measure can be accomplished with little additional cost to the state by utilizing some of the existing DWR staff, supplemented with additional funding to coordinate the water efficiency program targets.
- Pass legislation and provide funding to establish a California water efficiency education and publicity program, similar to other health and safety programs that are sponsored and publicized by the state. The program must ensure the equitable distribution of conservation investments among rural and low income communities.
- Adopt the Natural Resources Defense Council's recommendations to the Delta Vision Commission regarding water efficiency Loading Order. That would include a Loading Order policy through the State Water Control Resources Board, the State Public Utilities Commission and the Legislature that establishes water use efficiency as the top priority as well as a public goods surcharge on every acre-foot of water delivered in California, with the proceeds used to fund or subsidize efficiency programs.

Implementation and Funding for the above actions can come from existing or future bond funds, from Title 16 funding, or through regulatory changes. Additionally, since rate payers will bear the ultimate costs of these and other types of changes, rate payers will have to be given a voice in the choices made. Based on the LAEDC report, estimated costs for a statewide program along

[36] Los Angeles County Economic Development Corporation (LAEDC). 2008. Where Will We Get the Water? Assessing Southern California's Future Water Strategies. P 32-33. http://www.laedc.org/consulting/projects/2008_SoCalWaterStrategies.pdf.

[37] Legislative Analyst's Office. 2008. California's Water: An LAO Primer. P. 67. http://www.lao.ca.gov/2008/rsrc/water_primer/water_primer_102208.aspx.

[38] Strategic Economic Applications Company. 2009. The Sacramento San Joaquin Delta – 2 0 0 9, An Exploration of Costs, Examination of Assumptions, and Identification of Benefits, Draft.

the lines shown in Figure 2 might range up to $2.7 billion (through 2025), with most of the costs occurring in Southern California urban areas.

3. Provide Public Trust Protections And Thorough Economic And Sociological Analyses Of Reasonable Alternatives To Various Export Levels.

The California Supreme Court, in the Mono Lake decision, explicitly set forth the state's "affirmative duty to take the public trust into account in the planning and allocation of water resources and to protect public trust uses whenever feasible." Planning and allocation of limited and oversubscribed resources imply analysis and balancing of competing demands. So far we find little effort to balance the public trust obligations and resolve competing demands within the current planning processes (BDCP).

One of the significant flaws of previous and unsuccessful Bay-Delta proceedings has been the absence of a comprehensive economic evaluation of the benefits of protecting the estuary and in-Delta beneficial uses compared to the benefits of diverting and exporting water from the estuary. This absence has deprived decision makers and the public of critical information fundamental toreaching informed and difficult decisions on balancing competing demands.

Beyond protecting California's common property right in public trust resources, the balancing of limited water supplies must address the relative economic value of competing interests. For example, what is the societal value in providing Kern County, comprising a fraction of one percent of the state's population and economy, the same quantity of Delta water as the South Coast, with half the state's population and economy? What is the value to society of using public subsidies to irrigate impaired lands to benefit some 600 landowners, and that, by the nature of being irrigated, discharge harmful quantities of toxic waste that impairs other beneficial uses? What is the economic value of using twice the amount of water to irrigate an orchard in the desert than is required elsewhere? What are the costs and benefits of reclamation, reuse, conservation, and development of local sources? The preceding are only examples of the difficult questions that must be addressed in any allocation of limited resources and balancing of the public trust. Economic analysis is crucial to providing the insight and guidance that will enable and Delta plan to meet its mandate. Without such analysis, we do not believe a Delta plan can successfully or legally comply with its legislative and constitutional obligations.

An excellent description of the public trust type of issues caused by the current operations in the Delta and Estuary are contained in the Bay Institute report "Collateral Damage."[39]

Implementation and Funding for a balancing of the public trust values will depend on the results of the State Water Resources Control Board hearings on Delta flows, which are

[39] The Bay Institute. Collateral Damage. March 2012. http://www.bay.org/publications/collateral-damage

scheduled to be completed during 2014. Subsequent to those hearings, implementation and funding plans will most likely fall within the purview of the state legislature.

4. Reinforce Core Levees Above PL84-99 Standards.

This plan accepts and supports the Delta Protection Commission's recommendation in their Economic Sustainability Plan to: "Improve many core Delta Levees beyond the PL 84-99 standard that addresses earthquake and sea-level rise risks, improve flood fighting and emergency response, and allow for vegetation on the water side of levees to improve habitat. Improvement of most core Delta levees to this higher standard would cost between $2 to $4 billion." [40]

There is a plausible public interest in providing public funds to Delta reclamation districts and other Delta interests for levee upgrades since the Delta serves as the water conveyance facility for much of California. Water exporters should be required to identify which levees, if any, ***they want to fund to a higher standard*** (for example more earthquake resistant) to protect their water supply, beyond the current standards. Recommendations should also include assisting Delta counties and communities in meeting FEMA/NFIP programs. The plan should also contain a recommendation to support and increase public funding for permanent continuation of existing and highly successful statutory cost-share formula and funding for Delta (Subventions) Levee
Program. Public safety and flood protection must remain the top priority of the State Plan of Flood Control, including its levees and bypasses. The levees should be vegetated with native species to help stabilize the levees and support endangered species.

Because earthquake risks to the levees are one of the main justifications for a Peripheral Canal or Tunnel in the Delta, and there is evidence that the earthquake risks to the Delta levees may have been exaggerated in previous drafts of the Economic Sustainability Plan, the comparison of costs of the two alternatives ($2 to $4 billion for levee strengthening versus $15-$16 billion for new conveyance) is significant and should be incentive enough to immediately initiate this levee reinforcement program and make catastrophic levee failure a questionable justification for new conveyance.

Implementation and Funding would be in keeping with the Delta Protection Commission's Economic Sustainability Plan, between $2 to $4 billion.

[40] Draft Executive Summary, Economic Sustainability Plan for the Sacramento-San Joaquin River Delta, March 10, 2011 http://www.delta.ca.gov/res/docs/ESP_ESUM.pdf

5. **Install Improved Fish Screens At Existing Delta Pumps.**

A recent report by Larry Walker Associates indicates that a 1996 report by DWR and DFG concluded that for every salmon salvaged at the fish protection facilities more than three are lost to predators or through fish screens.[41] The same report also indicated that over a 15 year period (1979-1993), 110 million fish were reported to have been salvaged at the Skinner Fish Facility, the fish protection facility at the SWP. In 2000, the CALFED Record of Decision highlighted the need to improve the fish screens at the South Delta pumps. Between 2000 and 2011, more than 130 million fish have been salvaged at the State and Federal Project water export facilities in the South Delta, according to a more recent DFG report.[42] Actual losses are far higher. For example, recent estimates indicate that 5-10 times more fish are lost than are salvaged, largely due to the high predation losses in and around water project facilities.[43] Additionally, the fish screens are unable to physically screen eggs and larval life stages of fish from diversion pumps.[44] The losses of eggs and larval stages of fish, as well as the enormous losses of zooplankton and phytoplankton that comprise the base of the aquatic food chain, go publically unacknowledged and uncounted.

As pointed out in the Walker Associates report, the fish protections at the South Delta pumps, including the fish screens and salvage facilities, remain largely unchanged since they were first engineered more than 40 years ago.[45] Currently only about 11-18% of salmon or steelhead entrained in Clifton Court Forebay survive. Based upon numerous studies by DFG, DWR and academic researchers, 75% of fish entering Clifton Court Forebay are lost to predation, 20-30% of survivors are lost at the salvage facility louvers, 1-12% of salvaged fish are lost during handling and trucking plus an additional 12-32% lost to post-release predation.[46] As related above, losses to other species, such as Delta smelt or the egg and larval stages of pelagic species and salmon fry, are believed to be much higher. For example, some species, like Delta smelt, cannot survive salvage transport, and the losses approach 100%.

According to the draft BDCP Effects Analysis' Summary of Effects of BDCP on Entrainment of Covered Fish Species, South Delta export facilities could potentially increase entrainment of:

- Juvenile steelhead in dry and critical dry years,
- Juvenile Winter-run Chinook salmon in above normal & below normal years,

[41] Larry Walker Associates. A Review of Delta Fish Population Losses from Pumping Operations in the Sacramento-San Joaquin River Delta. January 2010. http://www.srcsd.com/pdf/dd/fishlosses.pdf. Page

[42] California Department of Fish and Game annual salvage reports for the State Water Project and Central Valley Project's fish facilities, 2000-2011.

[43] Larry Walker Associates. A Review of Delta Fish Population Losses from Pumping Operations in the Sacramento-San Joaquin River Delta. January 2010. P. 2. http://www.srcsd.com/pdf/dd/fishlosses.pdf

[44] DWR. Delta Risk Management Strategy, final Phase 2 Report, Risk Report, Section 15, Building Block 3.3: Install Fish Screens. June 2011. P. 15-18.

[45] Ibid, Larry Walker Associates,

[46] Larry Walker Associates. A Review of Delta Fish Population Losses from Pumping Operations in the Sacramento-San Joaquin River Delta. January 2010. P. 2.

- Juvenile Fall-run Chinook salmon in all below normal & dry years and Fall-run smolts in all years,
- Juvenile late fall-run Chinook salmon in dry and critical dry years,
- Juvenile Longfin smelt in above normal, below normal, and dry years and adults in critical dry years, and
- Juvenile Sacramento splittail in all years.[47]

Because of flow requirements and biological constraints affecting diversions from the Sacramento River, exports from the South Delta pumps will remain a significant percentage of total water exports with BDCP. BDCP currently estimates that 50% of State and Federal Project exports would come from the existing South Delta diversion facilities in average water years and as much as 75-84% in dry and critical water years.[48] In fact, BDCP modeling suggests that exports and fish entrainment from South Delta diversions could potentially increase in certain water year types and for critical life stages of certain species.[49]

The *CALFED Bay-Delta Program Programmatic Record of Decision* and associated Biological Opinions required the construction of new state-of-the-art fish screens at existing South Delta export facilities in 2000.[50] A funding plan was to be completed by early 2003, facilities design completed by the middle of 2004, and operations and performance testing to begin by the middle of 2006.[51] However, the explicit commitment to construct new screens was put on hold in 2003 after the State and Federal Project Contractors indicated that they would not pay for them. New South Delta screens are not included as part of the BDCP. As BDCP will continue to rely on the South Delta pumps for a substantial percentage of project exports, new screens must be required to mitigate for project impacts.

DWR's *Delta Risk Management Strategy (DRMS) Phase 2 Report* found that the South Delta pumping facilities could be successfully screened by multiple in-canal vee-type screens of about 2,500 cfs capacity in each module. These new state-of-the-art South Delta screens, placed

[47] ICF International. BDCP Effects Analysis, Entrainment, Appendix 5.B, Entrainment, Administrative Draft Bay Delta Conservation Plan. March 2012. PP. B.7-2 – B.7-4.

48 NRDC. A Portfolio-Based BDCP Conceptual Alternative. February 2013. http://switchboard.nrdc.org/blogs/bnelson/Portfolio%20Based%20BDCP%20Conceptual%20Alternative%201-16-13%20V2.pdf

ICF International. BDCP Effects Analysis, Appendix 5.B, Entrainment, Administrative Draft Bay Delta Conservation Plan. March 2012. P. B.0-8. http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/BDCP_Effects_Analysis_-_Appendix_5_B_Entrainment_3-30-2012.sflb.ashx

[49] ICF International. BDCP Effect Analysis, Appendix 5.B, Entrainment, Administrative Draft Bay Delta Conservation Plan. March 2012. PP. B.0-4 – B.0-11.

[50] CalFed. Programmatic Record of Decision. August 2000. P. 49. Including Attachment 6A, U.S. Fish and Wildlife, Programmatic Endangered Species Act Section 7 Biological Opinion, P. 36 and Attachment 6B, National Marine Fisheries Service, Programmatic Endangered Species Act Section 7 Biological Opinion, P. 27. http://www.calwater.ca.gov/content/Documents/ROD.pdf

[51] Larry Walker Associates. A Review of Delta Fish Population Losses from Pumping Operations in the Sacramento-San Joaquin River Delta. January 2010. P. 18.

at the entrance to Clifton Court Forebay, would eliminate the 75% predation in the Forebay and successfully protect fish longer than about 25 mm in length.[52] While new screens would be expensive, still require transport of salvaged fish, not totally resolve debris removal issues or eliminate all fish entrainment, they would dramatically reduce the appalling fish losses that occur at present.[53]

Modernizing the fish screens at the South Delta facilities is an integral part of the EWC's RX Plan in order to reduce fish killing at the pumps. The South Delta pumps will continue to be the primary diversion facilities under this RX Plan.

While experience with the existing fish screens at the South Delta have yielded much data on how to design more effective fish screens, modernizing the fish screening designs and operations would also require hydraulic and physical modeling, dimensional testing of dynamic baffling systems, and consideration of future hydrologic conditions associated with climate change.

The EWC supports the development and implementation of significantly modernized, new fish screening facilities with the best available technology, in keeping with original CALFED plans, and at other existing in-Delta diversions. This would include installation of positive barrier fish screens on all diversions greater than 250 cfs in both the Sacramento and San Joaquin River Basins as well as a significant percentage of smaller and unscreened diversions in these ecosystems.

An alternative possibility is the use of non-physical barriers to deter fish from entering the intake zones of the South Delta pumps. Non-physical barriers include the use of the following methods: electrical barriers; strobe lights; acoustic fish deterrents; bubble currents; velocity barriers; chemical toxicants; pheromones; and magnetic fields. In view of the criticality of recovering fish populations through reduced mortality at the pumps, the feasibility of these types of non-physical barriers should not be overlooked. The Bureau of Reclamation has recorded some research results of the use of non-physical barriers.[54]

Implementation and Funding. Based on unpublished CALFED cost estimates improved fish screen facilities at the Banks Pumps would be more than $1 billion in 2007 dollars; the cost estimate for Tracy would be $290 million.[55]

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[52] DWR. Delta Risk Management Strategy, final Phase 2 Report, Risk Report, Section 15, Building Block 3.3: Install Fish Screens. June 2011. P. 15-18.
http://www.water.ca.gov/floodsafe/fessro/levees/drms/docs/DRMS_Phase2_Report_Section15.pdf

[53] Id. 15.5.2.1 Conclusion at PP. 15-19 & 15-20.

[54] Bureau of Reclamation. Non-Physical Barrier (NPB) for Fish Protection Evaluation: Can an Inexpensive Barrier Be Effective for Threatened Fish? http://www.usbr.gov/research/projects/detail.cfm?id=8740

[55] http://www.water.ca.gov/floodmgmt/dsmo/sab/drmsp/docs/DRMS_Phase2_Report_Section15.pdf

6. <u>Keep Water Transfers Within The Revised Delta Export Limits</u>.

Since the early 1990s, water transfers via market transactions have been used to overcome what some economists and water managers feel is the inflexibility of California water rights priorities—first in time, first in right. Such transfers typically become most visible to the public during drought years, when junior water rights holders like the federal Central Valley Project and the State Water Project face cutbacks as more senior water right holders exert their priority to what water that remains. Junior water rights holders attempt to obtain more surface water supplies by offering to purchase water directly from willing sellers, who are usually holders of senior water rights. With groundwater unregulated in California, these willing sellers are able to make large profits by pumping groundwater to irrigate their crops to substitute for the surface supplies they sold to other users.

This is a recipe for ecological disaster in the Delta and both ecological and economic disaster in the Sacramento Valley. Water transfers are intended to overcome water rights priorities, but they also have the potential to cause falling groundwater elevations, overdraft (pumped supplies outracing the rate of recharge to the aquifer), land subsidence (where the elevation of the land surface actually falls as emptied aquifers collapse and lose storage capacity), and increased stream flow losses (chasing a falling groundwater table). This has been the experience of agricultural regions in the Santa Clara Valley (before it urbanized into Silicon Valley) and the San Joaquin Valley, as well as in urban groundwater basins of the Los Angeles region. These conditions (falling groundwater elevations, overdraft, land subsidence, and stream flow losses) combined to destabilize once healthy hydrologic systems, which created the exploited conditions that make "conjunctive use" water strategies possible. This must not be repeated in the Sacramento Valley.

The State of California during past droughts has operated a "drought water bank" program which arranges the sales of Sacramento Valley region surface water to buyers south of the Delta. Two environmental problems arise from this program: First, the water that is sold must be moved through the Delta to be pumped by the dangerous export pumps of the CVP and SWP. Second, landowners selling their surface water may then pump groundwater to irrigate their crops, which causes groundwater elevations to fall for all users. If these conjunctive use programs continue in the Sacramento Valley, its aquifers are in jeopardy. This Valley's agricultural economy, ecology, and surface waters are highly dependent on its natural groundwater abundance.

No net new water transfers should be exported from north of the Delta beyond those of the most senior water rights of the San Joaquin River Exchange Contractors in the San Joaquin Valley. Their supplies are already imported to the San Joaquin Valley as part of normal export operations of the Central Valley Project from the Delta, and the Exchange Contractors have already begun operating a water transfer program consisting of a maximum of 150,000 acre-feet for sale (about 5 percent of EWC's recommended cap on Delta exports). This policy protects the Delta from new export pumping impacts, but it also protects for the long term the groundwater supplies of the Sacramento Valley. Having such a policy in place is the only way

for the Valley's farmers to avoid having their groundwater usage go the way of the San Joaquin Valley's in the 19th and 20th centuries. There are other senior water rights holders in the San Joaquin River Basin who are also being approached for dry year water supplies, such as San Francisco seeking to purchase water from irrigation districts along the Tuolumne and Stanislaus rivers.

Water transfers through the Sacramento-San Joaquin-San Francisco Delta and Estuary – which include individual water sales transactions, Article 21 State Water Project pumping and the pumping of the Central Valley and the State Water Projects' contracts – play, at times, a significant role in the movement and transfer of water throughout the state and have significant impacts on the ecology of the Estuary. The two latter projects provide the largest percentage of transfers through the Delta while water sales and Article 21 pumping in some years is significant.

A new paradigm is needed in California water policy that would simultaneously reduce the transfer pumping through the Delta to a level that maintains a healthy ecosystem and is consistent with the most senior water rights of the Exchange Contractors while providing more logical and reliable sources of water for south-of-Delta water users. Instead of continuing to export extraordinary amounts of water from the Delta, south-of-Delta water users could obtain significant amounts of water from localized south-of-Delta sources in the San Joaquin Valley region. Such "south-to-south" of Delta trades would avoid the impacts on fish and wildlife species, water quality, ecosystem conditions, flow volumes and directions, and groundwater in the Sacramento Valley that come with excessive Delta export pumping. It would also avoid the groundwater substitution transfers that could ruin the agricultural economy of the Sacramento Valley and the vital streams necessary for already struggling aquatic and terrestrial species. This type of move toward regional self-sufficiency is now state law from passage of the Delta Reform Act of 2009. As of early 2012, however, pending federal legislation would go in the opposite direction and allow more dependence on Delta exports through water sales and "surplus" water pumping.

A more favorable scenario than the present and contemplated heavy north-to-south Delta pumping consists of the following changes in supply orientation:

- San Joaquin Valley water users could be incentivized to voluntarily share resources by providing southern Sierra water to south-of-Delta water users through new interties with existing infrastructure, or by providing for the movement of agricultural water from the east side of the San Joaquin Valley, where water is more abundant, to west side agriculture, where the water supply is more limited. This kind of change can be facilitated with efficiency incentives for east side water users and might result in as much as 500,000 acre-feet of additional water for the west side. Although politically difficult, this is an elegantly simple and effective solution for regional self-dependency for south-of-Delta agriculture users and for all of California. This kind of change would have to consider the required outflows to the Delta Estuary from the San Joaquin River.

- Supplies for the Metropolitan Water District and other south-of- Delta users could be sourced from the natural reservoir that is Tulare Lake by allowing flows from the Kern, Kings, Kaweah, and Tule Rivers to flow into the Tulare basin. This option is being advocated by the San Joaquin Valley Leadership Forum, which has determined that surface storage capacity in the Tulare Lake Basin could be more than 2.5 million acre-feet. This option may require a new Kern-San Joaquin intertie. Reorienting water transfer policies to benefit south-of-Delta water users will require further detailed analysis to confirm its feasibility; however, the potential for these measures to comply with the state requirement to reduce reliance on the Delta to the level recommended above deserves serious consideration.

A Water Transfer Matrix and a set of Water Transfer Principles are included in the referenced EWC report *California Water Solutions Now*.

As called for in the California Water Code, transfers that use State, regional or a local public agency's facilities require that the facility owner determine that the transfers not harm any other legal user of water, not unreasonably affect fish and wildlife, and not unreasonably affect the overall economy of the county from which the water is transferred. Unfortunately, there is no enforcement mechanism except litigation, which is an onerous burden for the public. This is a particular concern in the Sacramento Valley, where existing healthy aquifers could be over drafted by willing sellers in order to supply the same San Joaquin irrigators who caused the existing overdraft conditions in the San Joaquin areas. In addition, the State Water Plan points out that "some stakeholders worry that State laws and oversight of water transfers may not be adequate to protect the environment, third parties, public trust resources, and broader social interests that may be affected by water transfers, ….. and transfers that involve pumping groundwater, crop idling, or crop shifting." The EWC plan would come down on the side of county of origin protections and the "precautionary principle" in order to protect existing healthy groundwater aquifers north of the Delta Estuary.

Implementation and Funding. No estimates available

7. Eliminate Irrigation Water On Drainage-Impaired Farmlands Below The Bay Delta.

Selenium, boron, molybdenum, mercury, arsenic and various other salts and minerals are highly concentrated in the soils of the Delta-Mendota Service Area and the San Luis Units of the CVP, as well as portions in the Kern and Tulare basins served by the SWP. Descriptions of these soils are presented in the 1990 joint federal and state report known as "The Rainbow Report."[56]

[56] U.S. Department of the Interior, California Resources Agency. September 1990. A Management Plan for Agricultural Subsurface Drainage and Related Problems on the Westside San Joaquin Valley. P. 2-3. http://www.water.ca.gov/pubs/groundwater/a_management_plan_for_agricultural_subsurface_drainage_and_related_problems_on_the_westside_san_joaquin_valley/rainbowreportintro.pdf

The San Luis Act of 1960 requires a drain system as a condition of approval of the San Luis Unit CVP contracts, which includes the Westlands Water District. Initially, the Bureau of Reclamation planned to build a San Luis Master Drain to the Bay-Delta from these lands, but construction of the drain to the Delta was stopped after 93 miles were completed to the Kesterson Reservoir near Los Banos. The US Geological Survey recently estimated that even if the San Luis Drain were completed, irrigation of the San Luis Unit of the CVP were halted, and 42,500 pounds of selenium a year were discharged into the Delta, it would take 65 to 300 years to eliminate the selenium already built up in valley groundwater.[57]

Since the late 1960s and 1970s, the State Water Project and Central Valley Project have been supplying water to approximately 1.3 million acres of drainage impaired land on the west side of the San Joaquin Valley; this is a clear violation of the State Constitution's prohibition against unreasonable use of the state's water.[58] Eliminating or reducing the irrigation of this land would save up to 2 million acre-feet of water in most years. [59]

Farmers and water districts throughout the Western San Joaquin Valley try to reduce their drainage water. However, retiring these lands from irrigated agriculture remains by far the most cost-effective and reliable method to eliminate harmful drainage discharges to water bodies and aquifers. The Westlands Water District has already retired 100,000 acres; a recent federal report discusses an option to retire 300,000 acres of drainage-impaired lands. [60] Any long-term solution to the west side's drainage problem must be centered on larger-scale land retirement, complemented by selective groundwater pumping, improved irrigation practices, and application of new technologies where appropriate. Any approach that is not founded on land retirement will ultimately continue to store and concentrate selenium and salts in the shallow aquifers, where they may be mobilized by flood events or groundwater transport.

Taking much of these "badlands" out of production would reduce demand for Delta water diversions and significantly improve water quality in the San Joaquin River. A planned program of land retirement and other drainage volume reduction actions should also provide for mitigation for impacts to the farm labor community. Even if irrigation deliveries continue, these lands will ultimately go out of production because of drainage impairment, as pointed out in the federal "Rainbow Report." A far better use of these impaired farmlands would be to provide state or federal incentives for the production of solar energy farms.

Implementation and Funding. No current estimates available.

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[57] Presser, Theresa S. and Samuel N. Luoma. 2007. Forecasting selenium discharges to the San Francisco Bay-Delta Estuary: Ecological effects of a proposed San Luis Drain Extension.The US Geological Survey,Professional Paper 1646. Abstract P. 1. http://pubs.usgs.gov/pp/p1646/

[58] California Constitution. Article 10, Section 2. http://www.leginfo.ca.gov/.const/.article_10.

[59] Pacific Institute. 2008. More with Less: Agricultural Water Conservation and Efficiency in California. P.7. http://www.pacinst.org/reports/more_with_less_delta/index.htm

[60] U.S. Geological Survey. 2008. Technical Analysis of In-Valley Drainage Management Strategies for the Western San Joaquin Valley, California

8. <u>Restore Delta Estuary and Riverine Habitats and Integrate FloodplainsWith Rivers</u>.

In keeping with the Legislature which has expressly declared that *permanent protection* of the Delta's natural and scenic resources is the *paramount* concern to present and future residents of the state and nation, habitat restoration projects should be aimed at public lands as a first priority. Habitat restoration projects must consider connectivity between areas to be restored and existing habitat areas needed for the full life cycle of species targeted to benefit from the restoration project. Where feasible, restoration should be accomplished along with levee reinforcement and where possible, restoration projects should emphasize the potential for water quality improvement. Restoration projects should also incorporate input from effected Delta landowners.

Priorities for restoration should include the following areas, since they would meet most of the criteria described above:

- Cache Slough Complex
- Cosumnes River–Mokelumne River Confluence
- Cosumnes River ground water basin depletion
- Lower San Joaquin River Floodplain
- Suisun Marsh
- Yolo Bypass

Although the EWC has not estimated the amount of acreage that would be involved in the priority areas, our priorities would go to the 50,000 acres of public lands, and our estimate would be well below the more than 100,000 acres called for in the BDCP plan. That plan is impractical from the viewpoint of costs and from the opposition it will engender among residents and landowners in the Delta. Any resulting plans would need to heavily involve residents of the Delta, something that has not been accomplished to date.

Floodplains benefit the people and ecology of California in numerous ways. Floodplains are extremely productive ecosystems that support high levels of biodiversity and provide valuable ecosystem services.[61] The floodplain of a river is a relatively level area on both sides of the stream channel that carries excess waters the channel cannot handle at various times. During a flood, the floodplain becomes the additional part of the stream to do the extra work for the stream channel. The floodplain allows flood waters to spread out, thus reducing the flood water's potential energy. As a result, less damage occurs downstream. If the flood plain is not allowed to work properly and the channel is narrowed, dredged, or rip wrapped the stream is forced to handle more of the flow and damage occurs. Channelization and dredging have caused the disappearance of the river's healthy sandbars and islands. Flood plains contain wetlands which function to slow and filter flood water, thus improving water quality. Wetlands also provide habitat for a diversity of wildlife. Floodplains, therefore, are extremely productive ecosystems

[61] Postel, Sandra. Richter, Brian. 2003. Rivers for Life. Island Press. P 20-21. http://islandpress.org/bookstore/details.php?sku=1-55963-444-8.

that support high levels of biodiversity and provide valuable ecosystem services. Studies have shown that healthy floodplains can have an extremely high monetary value due to these ecosystem services, which also include flood attenuation, fisheries habitat, groundwater recharge, water filtration, and recreation.

To function properly, floodplains must, by definition, periodically flood. Floodplains store floodwaters that recharge groundwater supplies, maintain proper instream flows, prevent bed-bank scour, are a source of organic carbon, and support a healthy population of aquatic species essential to both ecosystems and our economy. (See photo.[62]) The extent of functional floodplains in California has been dramatically reduced from historical conditions because levees, dams, flood control projects, and development have reduced or eliminated connectivity between rivers and floodplains. To reverse these losses, numerous agencies and organizations have spent significant resources to restore floodplains while simultaneously minimizing future flood risk.

With climate change, we can expect to have less snowpack, quicker spring snow melts, and increased flood pressures. Establishing natural floodplains connected with our rivers and avoiding development in floodplains will become more critical to community sustainability in the future.

The current restoration plans for the Yolo Bypass, including more frequent use of the Yolo Bypass, and similar conservation actions are encouraged as a part of this plan.

The following actions need to be included with any planned floodplain restoration:

- Where possible, remove or at least set levees back from riverbanks to allow for floodwaters to expand into the floodplain.
- Where it is not possible to remove levees, they should at least be vegetated with native riparian vegetation to provide the maximum achievable ecosystems functions.
- Make the purchase of floodplains or flowage easements a top priority for flood

During an experiment comparing the growth of juvenile Chinook in floodplain and river habitats of the Cosumnes River, fish reared in the floodplain (right) grew faster than those reared in the river (left) T.R. Sommer et al. 2001.

Photo by Jeff Opperman; from Cosumnes River field study by Carson Jeffres

[62] Sommer T.R., Nobriga M. L., Harrell B., Batham W., Kimmerer W. J. 2001. Floodplain rearing of juvenile chinook salmon: evidence of enhanced growth and survival. Canadian Journal of Fisheries and Aquatic Sciences. P. 325-333. http://iep.water.ca.gov/AES/Sommer_et_al_2001.pdf

control agencies and prevent new levees from being constructed and development in floodplains.
- Ensure that low-income communities impacted by floodplain restoration are involved in the development of restoration plans, and that any impacts of restoration are fully mitigated.

Implementation and Funding. Costs might be approximately $1.6 billion, based on half of the comparable restoration costs of BDCP from 2010 documentation.[63]

9. Return The Kern Water Bank To State Control, Restore Article 18 Urban Preference, And Restore The Original Intent Of Article 21 Surplus Water In SWP Contracts.

The Monterey Amendments changed significant provisions of the original State Water Project and, as an unintended consequence, increased pressure for exports from the Delta and increased pumping beyond healthy limits. The changes that caused these conditions were: the elimination of Article 18a, the "Urban Preference;" the elimination of Article 18b, the "Paper Water" safeguard; the change of orientation for Article 21 "surplus water;" and the privatization of the Kern Water Bank.

As a part of this plan, the following changes should be made in order to reduce reliance on the Delta, to assure Public Trust protections for a public resource, and to provide greater reliance for urban water users in the state's largest population centers.

- The "urban preference," that was eliminated as a component of State Water Project contracts due to the Monterey Amendments, must be reinstated. California should return to its original plan of giving priority to the water needs of its bourgeoning population rather than giving farm water equal priority, per the Monterey Amendments changes.
- The contracted amounts of water for CVP and SWP Table A users are unrealistically high and must be brought in line with historic "firm yield" experience, as required in the contracts. The overall water supply reductions forecasted with global climate change adds to the urgency to bring these contracted amounts in line with current realities and for future planning.
- The pumping of "Article 21" (so-called surplus) water is unnecessary and has proven to be damaging to the fisheries and ecology of the estuary, especially the pumping of this "surplus" water in dry years, which should never be permitted. In reviewing the different types of water transfers that can occur throughout the state, some are more logical and favorable from an ecosystem and cost viewpoint, while others are clearly damaging by the same two criteria.
- The Kern Water Bank – initially a public asset – has been inappropriately turned over to private interests as a part of the Monterey Amendments and must be reestablished as a

[63] Highlights of the BDCP, pamphlet published December 2010

state entity under the ownership and operational control of the Department of Water Resources (DWR) for the benefit of all Californians, as it was when DWR purchased the land for the bank in the 1980s. When combined with the reinstatement of the urban preference in the State Water Project, this change would enhance water supply reliability for urban southern California users and would eliminate profiteering from the public's water by private corporate interests.

Implementation and Funding. No cost estimates available.

10. Conduct Feasibility Study For Tulare Basin Water Storage.

Supplies for south-of- Delta users and the Metropolitan Water District could be sourced from the natural reservoir that is Tulare Lake by allowing flows from the Kern, Kings, Kaweah, and Tule Rivers to flow into the Tulare basin. This option is being advocated by the San Joaquin Valley Leadership Forum, which has determined that surface storage capacity in the Tulare Lake Basin could be more than 2.5 million acre-feet.[64] The concept would require bi-directional conveyance with both the Kern Canal and the California Aqueduct.

The restoration of the Tulare Lake basin in the San Joaquin Valley is a unique opportunity to provide for the quality, quantity, and reliable regional sourcing and use of water for agricultural, economic development and environmental needs on a self-sufficiency basis. At one time, Tulare Lake was the largest freshwater body west of the Mississippi River storing up to 25 million acre feet. The concept proposal put forth by the San Joaquin Valley Leadership Forum is based upon technical, financial, and environmental analysis which is superior to the only other storage proposal currently under study within the San Joaquin Valley – known as Temperance Flat on the Upper San Joaquin River above Millerton Lake/Friant Dam. As an example, the restoration of just 10% of the historic Tulare Lake would be nearly twice the surface storage capacity of Temperance Flat – let alone the fact that the Tulare Lake basin provides ground water storage capabilities as well – and Temperance does not. Another important distinction between Temperance Flat versus Tulare Lake is the fact that the Tulare Lake basin can support the collection and management of flood waters from at a minimum of four south Sierra river systems – Kings, Kaweah, Tule, and Kern – as well as the upper San Joaquin. Temperance Flat would only support the flood waters of the upper San Joaquin River.

There is a possibility of ground contaminants in the basin that may be at harmful levels. The feasibility study would need to examine this potential issue closely. California does not need another set of impaired lands similar to what already exists in the west side of the San Joaquin.

Implementation. This proposed concept should be evaluated as part of this "Responsible Exports" plan. The preliminary concept described by the San Joaquin Valley Leadership Forum is estimated to cost $800 million.

[64] San Joaquin Valley Leadership Forum, www.sjvwlf.org

Implementation and Funding. According to the San Joaquin Valley Leadership Forum plan, under $1 billion.

11. Enforce Water Quality Standards In The Estuary And In Impaired Rivers.

California's Porter-Cologne Act of 1969 and the 1972 federal Clean Water Act both were enacted with the goal of restoring the quality of our water resources. These resources have been seriously degraded by over a century of heavy industry and agriculture, the indiscriminate extraction of natural resources, and the continued discharge of inadequately treated sewage. Progress in reversing this degradation has been slow. While upgrades to wastewater treatment and discharge requirements for industrial polluters have improved water quality in many areas, the fact remains that almost 700 reaches of California waterways are still unable to support beneficial uses, including providing potable water supply and supporting ecosystem health.

These problems have contributed to ecosystem crashes in San Joaquin Valley rivers and the Delta, severe groundwater depletion and contamination in the San Joaquin Valley[65] and Central Coast that impacts low-income rural communities, and ocean pollution. Though state and federal laws already give regulators ample powers to improve water quality, this authority has not been exercised sufficiently to protect the health of the state's waterways or its residents. The continuing acceptance of agricultural wavers by Regional Water Quality Control Boards is a major contributor to the state's impaired waterways.

Diverting Sacramento River flows for export without significantly protecting existing groundwater basins and increasing the amount of fresh water flow dedicated to reaching San Francisco Bay, as currently planned for BDCP, will only degrade water quality and habitat conditions and aggravate the negative impact on Delta aquatic and terrestrial species. On the other hand, a future scenario that places less emphasis on the Delta as a water supplier and allows more water to be left instream, can dramatically reduce the environmental and water quality effects of exporting water – whether through or around the Delta. Although increasing flows, as described in this "Responsible Exports" alternative, will improve many aspects of Delta water quality, this plan must continue to pursue specific and targeted water quality actions in order to contribute to restoring the health of the Delta.

Implementation and Funding. Implementation will depend on the results of the State Water Resources Control Board hearings on Delta water quality and flows, which are scheduled to be completed during 2014.

[65] National Marine Fisheries Service. 2009. Endangered Species Act Section 7 Consultation Biological Opinion Environmental Protection Agency Registration of Pesticides Containing Carbaryl, Carbofuran, and Methomyl. P. 481-483. http://www.epa.gov/espp/litstatus/effects/comments-2nd-draft.pdf.

12. <u>Monitor And Report Statewide Groundwater Usage.</u>

Environmental organizations are generally disappointed with the groundwater monitoring features that were built into the Delta Reform Act of 2009. Earlier drafts of the 2009 legislation required groundwater monitoring and reporting throughout the state, while the final legislation was weakened to make groundwater reporting a voluntary effort. Since groundwater represents 30% of California's water supply in most years, the state must face this politically difficult situation with actions for mandatory groundwater reporting throughout the state.

This action needs to include a discussion of the Water Code's requirement for additional South-of-Delta underground storage, and the ability to meet that requirement through public control and expansion of the Kern Water Bank. The impacts of the additional capacity for Delta exports as provided by a public Kern Water Bank should be considered here. Given its location, size, and relative cost of development compared to surface storage, the Kern Water Bank is a facility which could greatly assist balanced export controls for the Delta and could be the single greatest improvement to overall state-wide water supply reliability. This plan strongly advocates for the return of the Kern Water Bank to state control as a water management conservation measure.

<u>Implementation and Funding</u>. No estimates available.

13. <u>Provide Fish Passage Above And Below Central Valley Rim Dams For Species Of Concern.</u>

Dams have made California a well-watered paradise for most of its human inhabitants. Dams are also killers of river habitats. Although California's vast system of water storage, hydropower and flood control dams has provided enormous economic benefits, it is not without downsides. Dams have been a major factor - in many cases the major factor - in the decline and extinction of numerous fish species, especially anadromous fishes that migrate to and from the ocean and must have access to the more favorable upper reaches of rivers to spawn and rear the next generation[66]. Every salmon and steelhead run in Central Valley rivers is either extinct, endangered, or in decline due to the overall habitat destruction and degradation caused by dams.[67] A 1985 California Department of Fish and Game study has indicated that the economic losses due to the declines of salmon, steelhead and striped bass which spawn in the Central Valley tributaries at $116,000,000 per year.[68]

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[66] National Marine Fisheries Service, Southwest Region. June 4, 2009. Biological Opinion And Conference Opinion On The Long-Term Operations Of The Central Valley Project And State Water Project. Page 660. http://swr.ucsd.edu/ocap/NMFS_Biological_and_Conference_Opinion_on_the_Long-Term_Operations_of_the_CVP_and_SWP.pdf.

[67] Friends of the River. 1999. Rivers Reborn: Removing Dams and Restoring Rivers. P 4-16. http://www.friendsoftheriver.org/site/DocServer/RiversReborn.pdf?docID=224&AddInterest=1004.

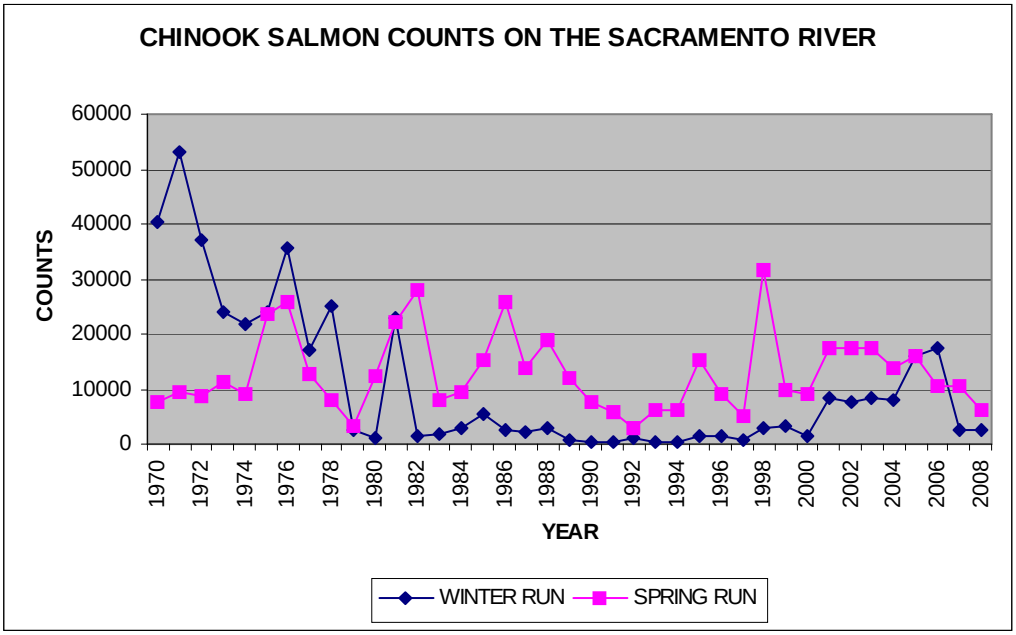
[68] California Department of Fish and Game. 1985. Administrative Report 85-03. http://deltavision.ca.gov/docs/externalvisions/EV8_Allied_Fishing_Group_Vision.pdf

The most serious fishery problem caused by major dams is the blockage of migratory fish passage. Over 95 percent of the historic salmon and steelhead spawning habitat in Central Valley river systems has been eliminated by the construction of large dams on every major river. Fish passage was not a serious consideration in the early part of the last century when most of the major dams were built; there were no Endangered Species Act or National Environmental Policy Act considerations at the time. California Fish and Game Code Section 5937, which mandates that dam operators keep fish in good condition below dams has largely been ignored outside the Mono Basin. The construction of Friant Dam on the San Joaquin River resulted in the extinction of the largest spring-run chinook population in the state. The dam blocked upstream spawning grounds that were known to be the best of the Central Valley rivers. Figure 3 shows the long-term downward trend for Chinook salmon in the Central Valley.

There are numerous solutions available that can provide fish passage around dams. They include construction of fish ladders or upstream fish channels, fish elevators, trap and truck operations, downstream bypasses, removal of smaller fish barriers, and dam removal. All of these techniques have been used at multiple locations with varying success rates. Some of the larger dams on the Columbia River system have been operating fish ladders for many years. While the costs of many of the techniques are substantial, the economics of industries and recreational activities that depend on healthy rivers and fish stocks can justify the investment. The appropriate comparison by which to measure such costs is the sum of agricultural, industrial, and municipal benefits that accrue via the diversion of tens of millions of acre-feet of water annually. Tourism and recreation is now California's largest industry at more than $96 billion annually, and river recreation is a large part of that industry. Recreational fishing generates $1.5 billion annually in retail sales and provides thousands of jobs.[69]

[69] Restore the Delta. April 7, 2009. Press Release.
http://archive.constantcontact.com/fs062/1102037578231/archive/1102546423830.html .

Figure 3
Central Valley Chinook Salmon Population[70]



An important aspect of fish passage above dams is the benefits to Native American Tribes in gaining access to historic cultural resources. These would include: the Winnemen Wintu on the Upper Sacramento, McCloud, and Pit Rivers; the Karuk Tribe on the Klamath; and the California Valley Miwok and Maidu on the American and Feather Rivers.

This plan supports, as a conservation measure, the National Marine Fisheries Service Biological Opinion on CVP and SWP operations that recommends fish passage pilot program plans and analysis for dams connected to the Delta, such as the Sacramento, American and Stanislaus rivers. This plan also encourages the State Water Board to direct the controlling agency of each Central Valley rim dam connected to the Delta to study the feasibility of fish passage for each dam that blocks the passage of listed salmonid species, similar to the NMFS Biological Opinion. [71] Costs should be borne by the dam operators since they are the main beneficiaries of the water storage operations.

Implementation and Funding. No estimates available.

[70] California Department of Fish & Game, Native Anadromous Fish & Watershed Branch. GRANDTAB Data Sets. http://www.calfish.org/IndependentDatasets/CDFGFisheriesBranch/tabid/157/Default.aspx

[71] National Marine Fisheries Service, Southwest Region. June 4, 2009. Biological Opinion And Conference Opinion On The Long-Term Operations Of The Central Valley Project And State Water Project. Page 660. http://swr.ucsd.edu/ocap/NMFS_Biological_and_Conference_Opinion_on_the_Long-Term_Operations_of_the_CVP_and_SWP.pdf

14. **Retain Cold Water For Fish In Reservoirs**.

Salmon, steelhead, and trout need cold water for their existence. As California has grown in size, the dams that have been built on virtually every major river have significantly changed both upstream and downstream river flows; high downstream water temperatures are one of the damaging results. Temperatures of 57-67 degrees Fahrenheit (F) are typically ideal for upstream fish migration and 42-56 degrees (F) are ideal for spawning. Water temperatures over 70 degrees (F) can be lethal to anadromous fish but are common on major rivers in the summer. Some fish populations have been able to adapt and carry on spawning and rearing below these major barriers, though in much smaller numbers than previously. Because farms need the most water in the summer, water behind reservoirs is low by the fall when many of the remaining populations of migrating fish return to the rivers. At that point the lack of cold water is a clear threat to their survival. Many of these fish species are now listed under the federal Endangered Species Act (ESA), and maintaining water temperatures suitable for survival has become a critical part of the actions required under the ESA.

This plan supports, as a conservation measure, the NMFS Biological Opinion recommendations for cold water releases on rivers connected to the Delta, such as the Sacramento, American, and Stanislaus rivers, [72] as well as supporting regulations and legislation to retain sufficient water in other major reservoirs to support fish populations in Delta-connected rivers below dams. The latter would include the Trinity River, so long as the current management plan protections for the Trinity are complied with.

Implementation and Funding. No estimates available.

15. **Fund Agencies With User Fees**.

Agencies that benefit from any new or existing conveyance facilities should pay the full cost of the facilities, including mitigation costs.

Costs of fixing the Delta and Estuary that are related to existing and planned water delivery systems, including related costs of environmental mitigation and restoration, should be financed by the agencies that deliver water and ultimately should be passed on to their retail customers.

Cost responsibilities for land acquisition and restoration of river and Delta floodplains should be distributed 75 percent through a broad-based water use fee (applied to all agencies whose supplies are diverted from a river or the Delta watershed.) and 25 percent through public funds.

[72] National Marine Fisheries Service, Southwest Region. June 4, 2009. Biological Opinion And Conference Opinion On The Long-Term Operations Of The Central Valley Project And State Water Project. Pages 590-620. http://swr.ucsd.edu/ocap/NMFS_Biological_and_Conference_Opinion_on_the_Long-Term_Operations_of_the_CVP_and_SWP.pdf.

Agencies that divert water from the Delta should pay their fair share of maintaining and replacing the Delta levees on which they depend and for protecting water conveyance facilities. The share of Delta levee repair costs assigned to these agencies should reflect the extent to which the levee repairs are essential to ensuring uninterrupted diversions.

In developing funding sources, special care should be taken that low income communities not be impacted by new fees and second, that appropriate set-asides be created to ensure that these communities can access funding needed to comply with new regulations and policies.

Implementation and Funding. No estimates available.

IN CONCLUSION

California is at an historic point in the evolution of our water usage. With the onset of global climate change, the natural limits of our water supply have become more obvious and the economics of our solutions are changing drastically. No longer will policy makers be able to advocate for multi-billion dollar bonds that saddle Californians with decades of tax burdens. And no longer will they be able to sell the public on monumental changes to our rivers and bays in the guise of restoring our ecosystems or providing subsidized water to corporate agriculture. The results of decades of those kinds of decisions are now in full view and we know that more effective solutions are available. Intergenerational equity demands better solutions than those of the last century.

Unless we manage our water more efficiently and account for the current and future effects of global climate change, the costs of water to all urban, agricultural, and industrial water users will exceed our ability to provide Californians with reliable, affordable water. The needs of communities of color and the Native American Tribal claims will remain unmet.

The water efficiency and sustainability solutions that are proposed in this report have already proved to be more economical than overtaxing our rivers and bays with more dams and canals. The combination of water efficiency solutions and reduced reliance on the Delta that are recommended in this report obviate the need for increased surface storage and increased conveyance through the Delta. We have shown that water efficiency actions can provide California with the largest increment of future water supply that is currently available to us; the solutions will also provide ample water supplies for population growth, agricultural and industrial growth, and for improving the conditions of our natural landscapes.

EXHIBIT
2

to Conservation Groups' Oct. 30, 2015,
Comment Letter on the BDCP RDEIR/SDEIS

Feds scramble to avoid another mass salmon die-off in the Sacramento River

By Phillip Reese and Ryan Sabalow preese@sacbee.com

A year ago, California lost nearly an entire generation of endangered salmon because the water releases from Shasta Dam flowed out warmer than federal models had predicted. Thousands of salmon eggs and newly hatched fry baked to death in a narrow stretch of the Sacramento River near Redding that for decades has served as the primary spawning ground for winter-run Chinook salmon.

Earlier this year, federal scientists believed they had modeled a new strategy to avoid a similar die-off, only to realize their temperature monitoring equipment had failed and Shasta's waters once again were warming faster than anticipated.

In the months since, in what is essentially an emergency workaround, they've revised course, sharply curtailing flows out of Shasta. The hope is that they reserve enough of the reservoir's deep, cold water pool to sustain this year's juvenile winter-run Chinook. But it's meant sacrificing water deliveries to hundreds of Central Valley farmers who planted crops in expectation of bigger releases; and draining Folsom reservoir – the source of drinking water for much of suburban Sacramento – to near-historic lows to keep salt water from intruding on the Delta downstream.

In spite of all this, another generation of wild winter-run Chinook salmon could very well die.

For all the focus on fallowed farm fields and withered lawns in California's protracted drought, native fish have suffered the most dire consequences. The lack of snowmelt, warmer temperatures and persistent demand for limited freshwater supplies have left many of the state's reservoirs – and, by extension, its streams and rivers – hotter than normal. The changing river conditions have threatened the existence of 18 native species of fish, the winter-run Chinook among them.

Chinook are called king salmon by anglers for a reason. They can grow to more than 3 feet in length, and the biggest can top more than 50 pounds. Decades ago, before dams were built blocking their traditional spawning habitat, vast schools of these silver-sided fish with blue-green backs migrated from the ocean to spawn and die in the tributaries that feed the Sacramento River in runs timed with the seasons.

The largest run that remains in the Sacramento River system is the fall run, which survives almost entirely due to hatchery breeding programs below the Shasta, Oroville and Folsom dams. The winter run, in contrast, is still largely reared in the wild, laying its eggs in the gravel beds below Shasta's concrete walls. Their numbers have dwindled in the face of predators and deteriorating river conditions. The federal government declared the run endangered in 1994, and it has flirted with extinction ever since.

Following last year's failed federal efforts, only about 5 percent of the winter-run Chinook survived long enough to begin to migrate out to sea. The species has a three-year spawning cycle, meaning that three consecutive fish kills could lead to the end of the winter run as a wild species. One hatchery below Lake Shasta breeds winter-run Chinook in captivity.

Officials with the U.S. Bureau of Reclamation, which operates both Shasta and Folsom dams, say they believe their emergency efforts at Shasta are working and they anticipate "some" winter-run Chinook will survive this year.

"We believe that we are on track," said bureau spokesman Shane Hunt. "We are sitting in a much better place today than we were a year ago today."

Several biologists interviewed remain dubious. They note that preserving more cold water in Shasta has meant many stretches of the Sacramento River are warmer than they were last year. They worry that salmon eggs and fry will still die – only gradually instead of suddenly.

“We stand a pretty good chance of losing the wild cohort again this year, like we did last year,” said Peter Moyle, a UC Davis researcher and one of the nation’s leading fisheries biologists. “If we get lucky some of those fish will survive. We’re definitely pushing the population to its limits.”

Agricultural leaders, meanwhile, say there’s good reason to suspect the government models will again prove flawed and the fish will die despite the sacrifices farmers have made.

Rep. Jim Costa, a Democrat and third-generation farmer who represents a wide swath of the San Joaquin Valley, is among those who think there’s a good chance farmers have been punished for no benefit to the fish.

“That begs the question: What are we accomplishing?” Costa said. “We are in extreme drought conditions. ... The water districts that I represent in the San Joaquin Valley have had a zero – zero – water allocation. ... Over half a million acres have been fallowed ... It just seems to defy common sense and logic.”

Some members of California’s fisheries industry also have lost confidence in the bureau, arguing the government has badly mismanaged its rivers. Beyond the very existence of a wild population of fish, they say, the government is risking millions of dollars for California’s economy and hundreds of fishing jobs – and a key source of locally caught seafood for markets and restaurants.

Two consecutive fish kills involving an endangered species could lead to more stringent regulation of commercial and recreational fishing. It’s a real possibility, state and federal fisheries regulators said, that salmon fishing could be severely restricted along much of California’s central coast and in the Sacramento River system next year.

Larry Collins, a commercial fisherman operating out of Pier 45 in San Francisco, said that in the fight over water, the fishing industry – and wild fish – lack the political clout compared with municipal and agricultural interests.

“I’ve been around a long time, and I’ve fought the battle for a long time, and I’ve watched the water stolen from the fish,” he said. “The fish are in tough shape because their water is growing almonds down in the valley. To me, it’s just outright theft of the people’s resource for the self-aggrandizement of a few, you know?”

“You got money you can buy anything,” he added. “You can buy extinction.”

Federal models prove faulty

On paper, the requirements for salvaging the winter-run Chinook seem fairly basic. The winter-run Chinook spawn from April to August. Juvenile fish swim downriver from July to March. If the water in the Sacramento River is too hot as the fry emerge from their eggs, they die. Warm water also makes it more difficult for the juveniles to survive their swim downstream to the ocean.

But in practice, there are broad variables to keeping the river cool, involving snowmelt, heat waves, water depths and the temperatures of the tributaries entering the reservoir, as well as conditions in the river downstream.

A year ago, federal and state officials had a plan to keep temperatures in key portions of the Sacramento River below 56 degrees; temperatures above 56 can trigger a die-off. The models built by the Bureau of Reclamation indicated operators could release large amounts of water from Lake Shasta while still maintaining a cool temperature, easing the pressure on farms and cities. According to their calculations, the water would be cold enough at key points in the Sacramento River to ensure survival of 30 percent of the salmon run.

But the models were wrong. The Bureau of Reclamation essentially ran out of cold water reserves in Lake Shasta,

limiting its ability to control temperatures in the Sacramento River. Average daily river temperatures rose well above levels needed by salmon to survive. The 5 percent that did transition from eggs to fry were left to navigate to the ocean in tough conditions.

“That 5 percent – I guarantee you they didn’t make it down through the Delta,” said Bill Jennings, executive director of the California Sportfishing Protection Alliance.

Fast forward to this year, and another plan gone awry.

During the spring, government officials again said they would keep winter-run Chinook alive by maintaining water temperatures below 56 degrees. The State Water Resources Control Board signed off on their plan in mid-May.

Only weeks later, Bureau of Reclamation officials told the state that their temperature monitoring equipment wasn’t working. In fact, they said, temperatures in Shasta were warmer than anticipated – and dramatic intervention would be needed to keep winter-run Chinook alive. They asked the board to consider a new plan and immediately restricted flows from Shasta.

The state water board took up the issue at a meeting on June 16. Members of the board bemoaned their lack of good choices and later adopted a plan that left no one happy. Water releases would be curtailed out of Lake Shasta. Folsom Lake would be drawn to historic lows. Deliveries to farmers would be reduced.

And, despite those measures, the average daily temperature in the Sacramento River would rise to 57 degrees on most days and 58 degrees on some days, according to the government models. That’s too high a temperature for all winter-run Chinook to survive, but the Bureau of Reclamation, in documents supporting the change, said its modeling predicted roughly 20 percent of the fish would survive to early adulthood. That would be lower than a typical year – but not a disaster.

But are this year’s models more accurate? Already this summer, average daily temperatures at a key point in the Sacramento River have risen above 58 degrees on seven separate occasions, including several times in late August, state data show.

Federal officials said their models anticipated some temperature spikes, and noted that on each occasion so far, they were able to release cold water into the river and bring temperatures back down.

“It can have an effect” on fish, said Hunt, the bureau spokesman, of river temperatures above 58 degrees. But, he added, “That temperature is not a lethal temperature immediately.”

Jon Rosenfield, a biologist with the Bay Institute, disagreed, saying that many winter-run salmon likely were doomed by the temperature spikes. He offered the analogy of a chicken egg: “If you take an egg and dip it in boiling water, you are jeopardizing its ability to develop into a chick,” he said. “The longer you do that and the hotter the temperatures, the less likely it is to develop.”

Another concern is whether there is still enough cold water in Shasta to keep river temperatures low into the fall. Hunt says yes – that the government projects that Shasta will contain 350,000 acre-feet of cold water, below 56 degrees, at month’s end, far more than in 2014.

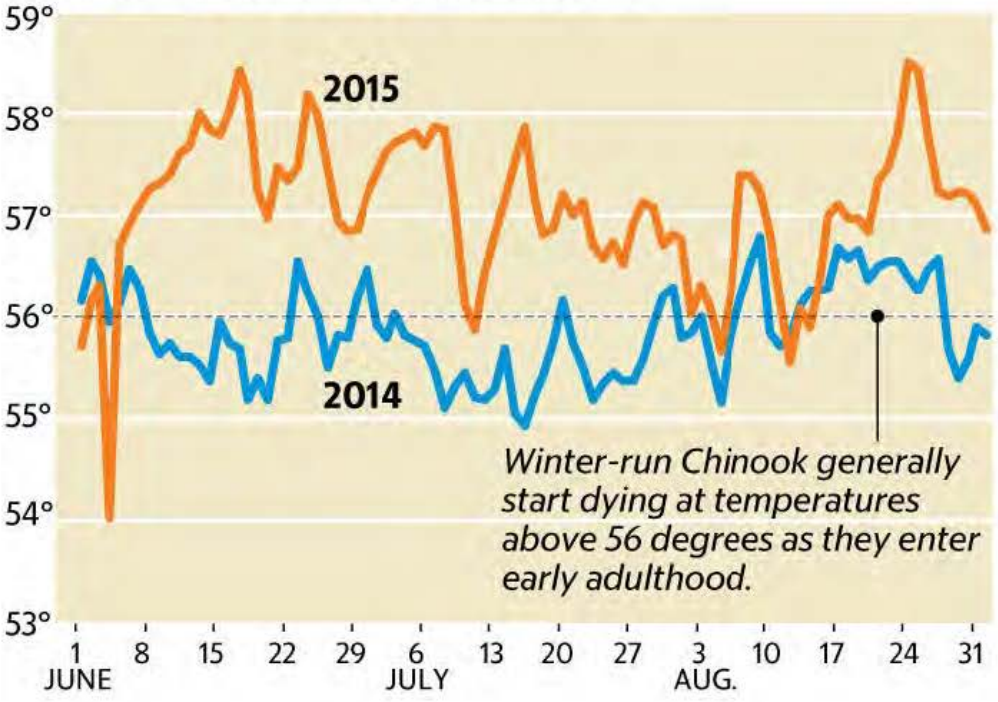
Rosenfield expressed doubts that the bureau is in position to do detailed calculations on its cold water supply. “They are way behind in anything using modern technology in measuring how much cold water they have,” Rosenfield said.

Scientists won’t know whether this year’s plan worked until fish surveys are completed in the winter. In a worst-case scenario, the government could rely even more heavily on its hatchery to sustain winter-run Chinook. Rosenfield called that option a “Band-Aid,” noting it would not preclude the loss of the fish as a wild species. Hatchery fish, he said, tend to come from a limited gene pool and may also have difficulty surviving in warm water.

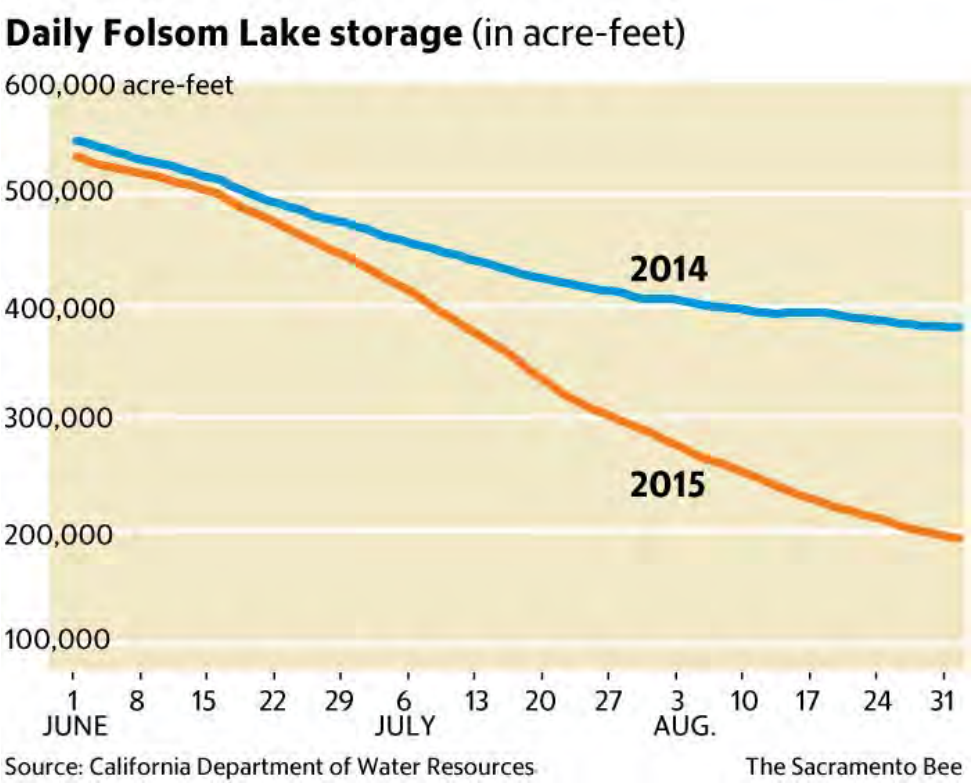
Higher river temperatures; low lake levels

Under a new plan, federal officials have allowed temperatures in the Sacramento River in Shasta County to rise above 56 degrees consistently throughout the summer. They predict the warmer temperatures will not cause a mass salmon die-off; some biologists are dubious.

Average daily water temperatures in the Sacramento River above Clear Creek



One consequence of the temperature plan to keep winter-run Chinook alive has been increased flows out of Folsom Lake.



Looking to the future

Jeff Gonzales worries about the ripple effects of another bad salmon season. Gonzales, a retired fire captain from Durham who guides clients on river-fishing trips, remembers when fisheries managers shut down the season for the fall-run Chinook in 2008 and 2009.

In those years, officials closed the fall-run fishing season in response to an unprecedented decline in the numbers of Chinook that had returned to the Sacramento, American and Feather rivers to spawn. The run plummeted amid poor ocean conditions and environmental problems in the Sacramento-San Joaquin Delta.

Gonzales thinks a similar scenario could be well underway, and that this year's fall run is also in danger. He's troubled by photos his fellow guides have sent him of fully-grown fall-run salmon floating dead in southern stretches of the Sacramento River. He attributes the deaths to warm water.

On Thursday morning, he was guiding clients on the river near Los Molinos, between Chico and Red Bluff, in search of fall-run salmon. The river is so warm, he said, that it's been tough to find fish in his normal spots. The fish, he said, have either raced upstream seeking colder water, or are holding off the entrance to the Delta in the Pacific, waiting for a cold water flow.

That means slow-going for him and other guides.

On Thursday, his four clients, all firefighters enjoying an off-day, spent a four-hour stretch watching ospreys, wood ducks and herons glide by as their lures wriggled in the swift current. Every so often, a Chinook would breach the water and slap the surface with its tail, almost tauntingly. That morning, just one client saw his rod bend under the weight of a lunging 15-pound, silver-sided king.

Some clients have canceled trips because of the paltry catches, Gonzales said, and business will only get worse if the salmon seasons get shut down due to yet another winter-run die-off.

Maneuvering through the currents, the river rippling out before him, he lamented not just the loss of the fish but of a cultural heritage.

“You’ve gotta think about our future here, you know?” Gonzales said. “Our children and our grandchildren may not be able to see what we’re seeing here.”

Phillip Reese: 916-321-1137, @PhillipHReese.

EXHIBIT
3

to Conservation Groups' Oct. 30, 2015,
Comment Letter on the BDCP RDEIR/SDEIS

Supplemental Informational Report 13
September 2015

STATUS REPORT OF THE 2015 OCEAN SALMON FISHERIES OFF WASHINGTON. OREGON. and CALIFORNIA.

Preliminary Data Through August 31, 2015.[a/]

Fishery and Area	Season Dates	Effort Days Fished	CHINOOK Catch	CHINOOK Quota	CHINOOK Percent	COHO[b/] Catch	COHO[b/] Quota	COHO[b/] Percent
COMMERCIAL								
Treaty Indian[c/]	*5/1-6/30*	683	30,916	30,000	103%		Non-Retention	
	7/1-9/15	364	26,944	29,084	93%	2,961	42,500	7%
Non-Indian North of Cape Falcon[d/]	*5/1-6/30*	2,118	38,930	40,200	97%		Non-Retention	
	7/1-9/1[e/]	1,090	25,248	26,800	94%	2,924	19,200	15%
	9/4-9/22"	NA	NA			NA	NA	NA
Cape Falcon - Humbug Mt.	*4/1-8/27*	6,645	82,752	None	NA		Non-Retention	
	9/3-9/30	NA	NA	None	NA		Non-Retention	
Humbug Mt. - OR/CA Border[g/]	*4/1-5/31*	161	1,177	NA	NA		Non-Retention	
	6/1-6/26	100	1,528	1,800	85%		Non-Retention	
	7/1-7/31	88	769	1,184	65%		Non-Retention	
	8/6-8/27	23	50	772	6%		Non-Retention	
OR/CA Border - Humboldt S. Jetty	*9/11-9/30*	NA	NA	3,000			Non-Retention	
Humboldt S. Jetty - Horse Mt.				Closed				
Horse Mt. - Pt. Arena	*5/1-5/31, 6/15-6/30, 7/12-8/26*	3,577	59,515	None	NA		Non-Retention	
	9/1-30	NA	NA	None	NA		Non-Retention	
Pt. Arena - Pigeon Pt.	*5/1-31,6/7-30, 7/8-8/29*	2,281	20,775	None	NA		Non-Retention	
	9/1-30	NA	NA	None	NA		Non-Retention	
Pt. Reyes-Pt. San Pedro	*10/1-2, 5-9 &12-15*	NA	NA	None	NA		Non-Retention	
Pigeon Pt. - Pt. Sur	*5/1-31,6/7-30, 7/8-8/15*	2,289	12,176	None	NA		Non-Retention	
Pt. Sur - U.S./Mexico Border	*5/1-31,6/7-30, 7/8-31*	866	4,412	None	NA		Non-Retention	
RECREATIONAL								
U.S./Canada Border - Queets River[h/]	*5/15-16, 22-23, 5/30-6/12*	751	215	10,000	12%		Non-Retention	
Queets River - Leadbetter Poin[h/]	*5/30-6/12*	2,080	745				Non-Retention	
Leadbetter Point - Cape Falcon[h/]	*5/30-6/12*	499	242				Non-Retention	
U.S./Canada Border - Cape Alava	*6/13-9/3*	13,255	8,199	8,400	98%	3,665	14,850	25%
	9/4-9/30						4,100	0%
Cape Alava-Queets River	*6/13-9/3*	2,685	2,113	2,600	81%	388	3,610	11%
	9/4-9/30						625	0%
	10/1-10/12			100	0%		100	0%
Queets River - Leadbetter Pt.	*6/13-9/3*	36,583	15,946	27,900	57%	22,793	52,840	43%
	9/4-9/30						13,000	0%
Leadbetter Pt.-Cape Falcon	*6/14-9/3*	32,970	8,881	15,000	59%	38,300	79,400	48%
	9/4-9/30						15,300	0%
Cape Falcon - Humbug Mt.	*3/15-10/31*	29,466	1,227	None	NA	Non-Retention except for periods listed		
Cape Falcon to OR/CA Border	*6/27-8/9*	Included Above or Below		NA	NA	14,925	55,000	27%
Cape Falcon to Humbug Mt.	*9/4-9/30"*	Included Above		NA	NA	NA	20,700	NA
Humbug Mt. - OR/CA Border (OR-KMZ)	*5/1-9/7*	2,795	321	None	NA	Included Above		
OR/CA Border - Horse Mt. (CA-KMZ)	*5/1-9/7*	8,711	3,640	None	NA		Non-Retention	
Horse Mt. - Pt. Arena (Ft. Bragg)	*4/4-11/8*	11,181	5,023	None	NA		Non-Retention	
Pt. Arena - Pigeon Pt. (San Francisco)	*4/4-10/31*	28,061	12,972	None	NA		Non-Retention	
Pigeon Pt. - P. Sur (Monterey N.)	*4/4-9/7*	12,648	2,547	None	NA		Non-Retention	
Pt. Sur - U.S./Mexico Border (Monterey S.)	*4/4-7/19*	1,996	359	None	NA		Non-Retention	

TOTALS TO DATE (through Aug. 31)	Effort 2015	Effort 2014	Effort 2013	Chinook Catch 2015	Chinook Catch 2014	Chinook Catch 2013	Coho Catch 2015	Coho Catch 2014	Coho Catch 2013
TROLL									
Treaty Indian	**1,047**	1,342	1,232	**57,860**	62,217	49,518	**2,961**	49,625	43,553
Washington Non-Indian	**2,468**	1,887	2,218	**53,564**	37,993	39,361	**1,874**	10,313	5,764
Oregon	**7,757**	9,491	6,473	**96,890**	195,852	74,407	**1,050**	3,997	309
California	**9,013**	11,807	15,401	**96,878**	151,367	285,592	**0**	0	0
Total Troll	**20,285**	24,527	25,324	**305,192**	447,429	448,878	**5,885**	63,935	49,626
RECREATIONAL									
Washington	**82,288**	101,428	70,938	**34,597**	38,290	26,810	**57,820**	96,034	39,387
Oregon	**38,796**	89,147	65,431	**3,292**	15,194	26,865	**22,251**	70,189	11,680
California	**62,597**	103,319	138,490	**24,541**	64,936	112,022	**38**	476	361
Total Recreational	**183,681**	293,894	274,859	**62,430**	118,420	165,697	**80,109**	166,699	51,428
PFMC Total	**203,966**	318,421	300,183	**367,622**	565,849	614,575	**85,994**	230,634	101,054

a/ Inseason estimates are preliminary.

b/ Non-Indian coho fisheries prior to Sept. are mark-selective and non-mark-selective recreational fisheries occur in Sept., (except SOF rec.) see the regulations for details.

c/ Effort is reported as landings. Chinook summer quota of 30,000 decreased by subtracting spring quota overage on an impact neutral basis by 916 fish.

d/ Numbers shown as Chinook quotas for non-Indian troll and rec. fisheries North of Falcon are guidelines not quotas; only the total Chinook allowable catch is a quota.

e/ September quotas to be adjusted due to iimpact neutral trades and rollovers.

f/ Remaining mark-selective coho quota to be converted to non-mark-selective quota on an impact neutral basis.

g/ July and August quotas adjusted from preseason due to impact neutral rollover of

h/ Mark-selective fishery for Chinook

i/ 12,500 preseason quota plus an impact equivalent roll-over from the Cape Falcon to OR/CA border mark-selective recreational coho fishery.

EXHIBIT
4

to Conservation Groups' Oct. 30, 2015,
Comment Letter on the BDCP RDEIR/SDEIS

SFGATE
http://www.sfgate.com/bayarea/article/Drought-driven-salmon-deaths-could-have-6596901.php

Drought-driven salmon deaths could have far-reaching impact

By Peter Fimrite Updated 7:46 am, Thursday, October 29, 2015

IMAGE 1 OF 18

A chinook salmon swims in a tank at the Salmon Institute in Tiburon.

One of the last wild runs of chinook salmon in California is sinking fast amid the

four-year drought and now appears perilously close to oblivion after the federal agency in charge of protecting marine life documented the death of millions of young fish and eggs in the Sacramento River.

The National Marine Fisheries Service reported Wednesday that 95 percent of the winter-run chinook eggs, hatchlings and juvenile salmon died this year in the river, which was too warm to support them despite conservation efforts.

It was the second year in a row that most of the juvenile salmon died in the soupy water released from Shasta Dam, failing to make it to the ocean.

The situation could have far-reaching effects, leading to cuts in water allotments to farmers next year if projected rains and a strong snowpack don't erase drought deficits this winter. Commercial and recreational fishing limits could be imposed to protect the endangered chinook population, taking a toll on those industries.

"Certainly there is cause for alarm when we are talking about 95 percent mortality," said Garwin Yip, the branch chief for water operations and delta consultations for the fisheries service. "We think it is temperature-related."

Not enough cold water

The problem was caused by a lack of snow this year on top of four years of drought. The U.S. Bureau of Reclamation, Yip said, was left without enough cold water behind Shasta Dam to release during spawning season.

Chinook, also known as king salmon, are born in the Sacramento River and pass through San Francisco Bay. They roam the Pacific Ocean as far away as Alaska before returning three years later to spawn.

Winter-run chinook salmon population

	Adult spawning count	Juvenile count through 10/22
2014	**2,627**	**279,952**
2015	**3,171**	**217,489**
Percent change	**21%**	**-22%**

Note: These are preliminary population estimates and will change

Source: NOAA fisheries

John Blanchard / The Chronicle

There are three distinct runs of salmon — winter, spring and late fall, which is what West Coast fishers catch in the ocean. The winter and spring-run chinook salmon are listed under the state and federal endangered species acts. The winter run has been endangered since 1994.

The fisheries service worked with two state agencies, the Department of Water Resources and the Department of Fish and Wildlife, to develop an elaborate plan this year to regulate cold-water releases from Shasta Dam.

Resource officials are required by law to release enough cold water to keep the

Sacramento River at 56 degrees — the ideal temperature for fish. In a bid to meet that requirement, federal officials sharply limited flows and delayed water deliveries to hundreds of Central Valley farmers.

Failed plan

The problem, Yip said, was that "there wasn't as much cold water as anticipated and the water wasn't as cold as we thought it was going to be."

RELATED STORIES

New survey finds 43 percent of salmon is mislabeled

Who owns California's water?

Dramatic photos show California's water-starved Folsom Lake Reservoir

The lack of cold water forced regulators to come up with a new temperature management plan, this one allowing the water to warm up to 57 degrees. But it didn't work, and water temperatures, at times, rose to 58 degrees, he said.

As a result, the number of juvenile fish counted this month at the Red Bluff diversion dam, downstream of Shasta, was down 22 percent compared with last year, which was also a bad year. That's despite the fact that there were 21 percent more adult fish laying eggs in the river, Yip said.

Two months remain in this year's run, but the number of juvenile fish is unlikely to grow much beyond the 217,489 counted so far.

The dismal state of affairs is even more stark when compared to historic numbers. In 2005, officials counted 8.5 million winter-run juveniles, and there were 4.4 million juveniles in 2009, the year the winter-run salmon conservation requirements were drafted.

Another bad year would mean that all three year classes of winter-run chinook are in peril, a clear sign that the species is heading toward extinction.

"I think the message is that winter run, at least right now, aren't doing too well," Yip

said. “The species can bounce back, but we’ve had drought conditions since 2012. It’s a caution that we are going to have to operate Shasta tighter and monitor releases more closely next year.”

Salmon fishermen are alarmed about how the fish deaths might affect their industry next year, said John McManus, executive director of the Golden Gate Salmon Association, a major advocate for the state’s $1.4 billion salmon industry.

“The real problem here is that water management policies in the Sacramento Valley and the delta are killing these winter-run fish,” he said.

The Sacramento River’s spawning run is the last great salmon run along the giant Central Valley river system, which includes the San Joaquin River, where leaping, wriggling chinook were once so plentiful that old-timers recall reaching in and plucking fish right out of the water.

The construction of Shasta Dam on the Sacramento, Friant Dam on the San Joaquin, Folsom Dam on the American River and Oroville Dam on the Feather River over the past century cut off huge sections of river, wiping out most of the fish.

Today, mostly fall-run hatchery fish are caught in the ocean and river flows are regulated to protect the remaining wild fish, including winter-run salmon.

That’s why the fate of juvenile salmon is so important. Reduced flows from Shasta this year required officials to increase releases from Folsom Lake, which reached record-low levels.

The cascade effect increased the tension among farmers, water agencies and environmentalists throughout the Sacramento-San Joaquin Delta region.

Peter Fimrite is a San Francisco Chronicle staff writer. E-mail: pfimrite@sfchronicle.com Twitter: @pfimrite

AQUALLIANCE
DEFENDING NORTHERN CALIFORNIA WATERS

california water impact network

CENTER FOR FOOD SAFETY

CALIFORNIA SPORTFISHING PROTECTION ALLIANCE
CSPA
Since 1983

January 9, 2018

Attn: Cassandra Enos-Nobriga
Executive Advisor, State Water Project
Department of Water Resources
P.O. Box 942836
Sacramento, CA 95814
ContractAmendment_comments@water.ca.gov

Re: Comments on the Draft Environmental Impact Report for the State Water Project Water Supply Contract Amendments for Water Management and California WaterFix.

Dear Ms. Enos-Nobriga:

AquAlliance, California Sportfishing Protection Alliance, California Water Impact Network, and Center for Food Safety (hereinafter "AquAlliance coalition") submit the following comments and questions for the Department of Water Resources' ("DWR") Draft Environmental Impact Report ("DEIR") for the *State Water Project Water Supply Contract Amendments for Water Management and California WaterFix* project ("Project"), State Clearinghouse # 2018072033.

The Project purpose echoes past attempts by DWR and its partner agency, the U.S. Bureau of Reclamation ("Bureau"), to drain as much water as possible from the Sacramento River Watershed and the Delta to continue some of the most destructive forms of desert agriculture, urban sprawl, and industrial extraction. The DEIR attempts to disclose impacts as required by CEQA, but simultaneously obfuscates many of the direct and indirect impacts. The AquAlliance coalition seeks to bring to light some of these hidden impacts and baseline information as we have before and to underscore the absurdity of the Project that is part-and-parcel of the Twin Tunnels project and the Sacramento River Water Management Agreement, which seek to create the infrastructure to deplete the Sacramento River Watershed and the Delta of essential fresh water. 1

The DEIR has numerous deficiencies and should be withdrawn. The absence of disclosure and analysis of significant direct, indirect, and cumulative impacts alone renders the DEIR seriously deficient. For this and other reasons, the Lead Agency must withdraw the DEIR or revise and recirculate it for public review and comment before a final Project EIR is considered.

I. Document Inadequacies

A. The Proposed Project is in Fact a Proposed Program

The cursory presentation of the Project and its impacts fails to meet the standard of a project EIR. "[A] *program* EIR is distinct from a *project* EIR, which is prepared for a specific project and must examine in detail site-specific considerations." *Center for Sierra Nevada Conservation v. County of El Dorado* (2012) 202 Cal.App.4th 1156, 1184. As discussed further, below, this DEIR does not and cannot complete site-specific and project-specific analysis of unknown sources of water for transfer from unknown sellers to unknown buyers at unknown times. 2

Put differently, the EIS/EIR project description is not simply inadequate, the DEIR fails to propose or approve any project at all. Instead, the EIS/EIR should be re-characterized and revised as a program DEIR. This would also reflect the 19 topics in Chapter 5, *Environmental Analysis*, that contain the following: "Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, the analysis in this DEIR is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments."

We will additionally provide details below regarding the inadequacy of direct and indirect impacts, geography, hydrology, existing conditions, and cumulative impacts.

B. Deficiencies in Disclosure or Detail

1. Section 2.3.2 Recent SWP Supply Allocation Amendments fails to provide sufficient detail.

Specific figures are not provided for the Solano County WA, Napa County FC&WCD, Yuba City, and Butte County agreements, nor are the supporting documents attached. Since the public and policy makers are in the dark on these important details, DWR must revise and recirculate the DEIR to correct these inadequacies. 3

2. Section *5.20 Water Supply* fails to disclose supply and use for some Public Water Agencies of the SWP

Section *5.20.2.2 SWP Use by PWA* fails to disclose how much SWP water has been transferred above Table A amounts to SWP agencies. In addition, there are significant disparities in information provided for the named PWAs that must be corrected. For example, the DEIR lists actual percentages of water use for some PWAs (e.g. Desert WA), and noticeably does not for others (e.g. County of Kings, Yuba City, etc.). Also conspicuously absent are supply and demand figures in acre-feet. The DEIR contains total maximum Table A water on page 2-19, however, without source specificity and total quantitative figures in acre-feet for each PWA's multiple sources of supply and sectors of use, Section *5.20.2.2 SWP Use by PWA* is meaningless. For example, when the DEIR discloses that "local water supplies" are part of a PWA's portfolio, the source of that supply is not disclosed (e.g. Alameda County WD has 54 percent supply from local 4

sources). Without the missing details it is impossible to understand each PWAs capacity to meet demand.

DWR must revise and recirculate the DEIR to correct these inadequacies.

4 (cont.)

3. Specific Inadequacies in Section *5.20 Water Supply*

On page 5.20-3, the DEIR describes the 2001 Inventory and Analysis report by Butte County. Using an outdated report is insufficient for the lead agency, policy makers, and the public to understand more current conditions. DWR must use material from the 2016 update created by Butte County to correct the figures in the DEIR.[1]

5

C. Obfuscation of Cumulative Impacts for Resources

Section 6.1.3.3 *Fallowing and Changes in Cropping Patterns* conceals cumulative impact discussions for other resource topics found in Chapter 5. "Therefore, the incremental contribution of the proposed project's effects on aesthetic resources, agricultural resources, criteria air emissions, biological resources, cultural and tribal cultural resources, soil erosion and loss of top soil, conflicts in land use as a result of fallowing and changes in cropping patterns would not be cumulatively considerable when viewed in connection with the effects of past projects, and current and probable future projects. This cumulative impact would be less than significant and no mitigation is required." (emphasis in red highlight added) p. 6-11. This must be corrected with an appropriate section for each resource topic identified as having the potential for impacts in Chapter 5, discussion of the potential for cumulative impacts, a statement of significance, and proposed mitigation if necessary.

6

II. The DEIR Contains an Inadequate Project Description

A "finite project description is indispensable to an informative, legally adequate EIR." *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192. CEQA defines a "project" to include "the whole of an action" that may result in adverse environmental change. CEQA Guidelines § 15378. A project may not be split into component parts with each subject to separate environmental review. *See*, *e.g.*, *Orinda Ass'n v. Board of* Supervisors (1986) 182 Cal.App.3d 1145, 1171; *Riverwatch v. County of San Diego* (1999) 76 Cal.App.4th 1428. Without a complete and accurate description of the project and all of its components, an accurate environmental analysis is not possible. *See*, *e.g.*, *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 829; *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 533; *City of Santee v. County of San Diego* (1989)214 Cal.App.3d 1438, 1450; *Blue Mountains Biodiversity Project v. United States Forest Service*, 161 F.3d 1208, 1215 (9th Cir. 2008).

7

The lack of a stable and finite project description undermines the entire DEIR. As discussed further, below, description of the environmental setting, evaluation of potentially significant impacts, and formulation of mitigation measures, among other issues, all are rendered unduly imprecise, deferred, and incomplete, subject to the theoretical transfers and exchanges taking shape at some, unknown, future time.

[1] https://www.buttecounty.net/wrcdocs/Reports/I%26A/2016WI%26AFINAL.pdf

A. The Project / Proposed Action Alternative Description Lacks Detail Necessary for Full Environmental Analysis.

1. The source water for the Project is not identified.

It is insufficient to refer to "SWP water" or "SWP Service Area" as the source of the water for the proposed Project without explaining the geographic location and the means with which the water will be available. The DEIR presents inadequate baseline data with which to consider the consequences of the Project. The comparison of the average unimpaired flow of the Sacramento River Watershed stacked against the claims that have been made for water is but one example. The average annual unimpaired flow in the Sacramento River basin is 21.6 MAF, but the consumptive use claims are an extraordinary 120.6 MAF![2] Missing for the Project are:

1) The exact origin of the water
2) What volume of water is involved
3) How the SWP has already impacted other surface and ground water users and the environment in the area of origin, transmission, and delivery
4) How the proposed Project will impact surface and ground water users and the environment in the area of origin, transmission, and delivery over the life of the contracts.

a) The description of the Sacramento River Hydrologic Region is found in only three pages: 5.16-1 to 5.16-4. It is seriously deficient. A list includes:

- Maps are not provided for the Sacramento River Hydrologic Region or any of the hydrologic regions described in Section 5.16 *Surface Water Hydrology and Water Quality*.
- The significance of Sacramento River tributaries to water supply and water quality is merely presented as "flow" without numeric values in acre-feet.
- At a minimum, the Clean Water Act 303(d) lists should have been in an appendix to the DEIR. A brief "discussion" of the listings[3] for the proposed basins may be appropriate for a Programmatic EIR, but fails miserably in a project level EIR.

8

2. Statewide demand for water from the Sacramento River Watershed is not identified.

As noted above, there are extraordinary consumptive claims on water from the Sacramento River basin that exceed the unimpaired runoff by 5.6 times. However, the sources of these claims are not disclosed or considered in the formulation of Project alternatives. The DEIR also fails to explain that the SWP retains junior claims, coming late in California's history. Supplying junior water to contractors that may want to exchange or transfer water suggests that there may be considerable waste and unreasonable use within the SWP.

9

The State of California has been derelict in its management of scarce water resources. We are supplementing these comments on this matter of wasteful use and diversion of water by incorporating by reference and attaching the 2011 complaint to the State Water Resources Control Board of the California Water Impact Network, the California Sportfishing Protection Alliance, and AquAlliance on public trust, waste and unreasonable use and method of diversion as additional evidence of a systemic failure of governance by the State Water Resources Control Board, the Department of Water Resources and the U.S. Bureau of Reclamation, filed with the Board on April 21, 2011. (Exhibit A)

[2] California Water Impact Network, AquAlliance, and California Sportfishing Protection Alliance 2012. *Testimony on Water Availability Analysis for Trinity, Sacramento, and San Joaquin River Basins Tributary to the Bay-Delta Estuary*.
[3] Project DEIR 2018. p. 5.16-12

3. Proposed amendments for water transfers and exchanges are based on an old draft document.

The DEIR proposes changes to contracts based on a draft document from June 27, 2018: *Draft Working Document for Public Discussion*. This stab at an Agreement in Principle ("AIP") leaves the Project incomplete due to its draft status and presentation as a working document for public discussion purposes. Likely subject to instability and changes it is more in the nature of a scoping document. Clearly, there is nothing stable about the AIP that the DEIR intended to present and analyze under CEQA. 10

4. Proposed amendments for water transfers and exchanges are vague and incomplete and defer implementation and mitigation to future dates and actors.

Table 4-1, *Summary of Existing PWA Contracts and Proposed Amendments for Water Transfers and Exchanges*, provides a summary of the proposed amendments for water transfers and exchanges and refers to specific areas of the draft AIP. Examples of vague and incomplete proposed changes raise many questions and concerns, as they are not clarified in the Draft Working Document for Public Discussion that comprises the draft AIP.[4]

- Basic criteria for transparency (AIP 3.2.1) and protecting non-participating PWAs from harm (AIP 3.2.2) are suggested, but how this will occur is absent.[5] Examples include, but are not limited to:
    - AIP 3.2.3 – "Transfers and exchanges must not create significant adverse impacts in a PWA service area." How will transfers and exchanges not create significant adverse impacts in a PWA service area? Neither the DEIR nor the draft AIP provides parameters or explanations. Who will oversee exchanges and transfers? How will the public access oversight material? What will be the definition of significant adverse impact? How will potential impacts be monitored for transfer and exchange activity that may cause impacts *outside* a PWA service area?
    - AIP 3.2.7 – "A PWA may petition the Director for an exception in the following cases. In each case, the PWA must provide explanatory information to the Director." Bullet one states, "A transfer or exchange does not meet the basic criteria, but the PWA feels that there is compelling need to proceed with the transfer or exchange." Considering that the "basic criteria" are not defined as we demonstrate here, it is alarming to imagine that exceptions to the skeletal criteria that theoretically address harm, albeit only within the SWP service areas, may proceed behind closed doors with DWR's Director. 11

The DEIR asserts that, "[n]o permits or approvals from the State Water Board or related to endangered species are required for the proposed project. DWR is evaluating if any other approvals from other agencies may be required and that DWR's approval is limited to executing the Contract amendments.[6]

5. Groundwater conditions in the source watershed are lacking.

The DEIR should disclose current groundwater conditions (see Table 1). Additionally, the DEIR assumption that the proposed Project will satiate the demand for water and therefore stem the 12

[4] *Id.* Appendix . AIP 3.2. pp 2-3.
[5] *Id.*
[6] *Id.* p. 4-8.

decline of groundwater is unsupported by history or fact. The deficit in information regarding groundwater impacts in the areas-of-origin and the receiving areas should be addressed.

Table 1. Northern Sacramento Groundwater Changes

County	Deep Wells (Max decrease gwe) Fall '04 - '17	Deep Wells (Max decrease gwe) Fall '04 - '16
Butte	-13.9	-28.3
Colusa	-67.2	-66.4
Glenn	-166.3	-65.8
Tehama*	-44.0	-35.8

County	Intermediate Wells (Max decrease gwe) Fall '04 - '17	Intermediate Wells (Max decrease gwe) Fall '04 - '16
Butte	-22.1	-28.3
Colusa	-62.4	-78.9
Glenn	-51.5	-58.3
Tehama*	-35.0	-29.3

County	Shallow Wells (Max decrease gwe) Fall '04 - '17	Shallow Wells (Max decrease gwe) Fall '04 - '16
Butte	-10.8	-18.3
Colusa	-51.8	-51.7
Glenn	-58.7	-59.6
Tehama*	-28.9	-36.3

*Tehama County portion in the Sacramento Valley groundwater basin.

12 (cont.)

B. The DEIR Improperly Segments Environmental Review of the Whole of This Project.

As discussed throughout these comments, the proposed Project does not exist in a vacuum, but rather is part of a number of plans and programs, such as the Sacramento Valley Water Management Agreement (aka Phase 8 of the Bay-Delta Water Rights Proceeding)[7] and the now defunct CalFed effort.[8]

13

[7] Exhibit A - 2001. *The Sacramento Valley Water Management Agreement.* "The workplans will identify a palette of voluntary water management measures that will lead to an integrated water management program. The program will include the coordinated use of storage facilities, management and recovery of tailwater through major drains, water conservation, conjunctive management of surface water and groundwater, and transfers and exchanges among Sacramento Valley water users and other water users in the state. Furthermore, the Agreement contains a commitment to implement Sites Reservoir as an integral component of the water management and water supply development program for the Sacramento Valley." p. 8.

[8] http://calwater.ca.gov/

The proposed Project is, in fact, just one project piece required to implement the Sacramento Valley Water Management Agreement ("SVWMA") (Exhibit B). The Bureau and DWR publicly stated the need to prepare programmatic environmental review for the SVWMA over many years, and the Project DEIR covers a significant portion of the program agreed to under the SVWMA. In 2003, the Bureau and DWR published an NOI/NOP for a "Short-term Sacramento Valley Water Management Program EIS/EIR." (68 Federal Register 46218 (Aug 5, 2003).) The *Short-term Sacramento Valley Water Management Program EIS/EIR* was never published, but a summary is found on the Bureau's current web site:

> The Short-term phase of the SVWM Program resolves water quality and water rights issues arising from the need to meet the flow-related water quality objectives of the 1995 Bay-Delta Water Quality Control Plan and the State Water Resources Control Board's Phase 8 Water Rights Hearing process, and would promote better water management in the Sacramento Valley and develop additional water supplies through a cooperative water management partnership. Program participants include Reclamation, DWR, Northern California Water Association, San Luis & Delta-Mendota Water Authority, some Sacramento Valley water users, and Central Valley Project and State Water Project contractors. SVWM Program actions would be locally-proposed projects and actions that include the development of groundwater to substitute for surface supplies, conjunctive use of groundwater and surface water, refurbish existing groundwater extraction wells, install groundwater monitoring stations, install new groundwater extraction wells, reservoir re-operation, system improvements such as canal lining, tailwater recovery, and improved operations, or surface and groundwater planning studies. These short-term projects and actions would be implemented for a period of 10 years in areas of Shasta, Butte, Sutter, Glenn, Tehama, Colusa, Sacramento, Placer, and Yolo counties.[9]

13 (cont.)

The resounding parallels between the SVWMA NOI/NOP and the proposed Project are not merely coincidence: they are a piece of the same program. In fact, the SVWMA discloses: *"Management Tools for this Agreement.* A key to accomplishing the goals of this Agreement will be the identification and implementation of a "palette" of voluntary water management measures (including cost and yield data) that could be implemented to develop increased water supply, reliability, and operational flexibility. Some of the measures that may be included in the palette are:

> "… (v) Transfers and exchanges among Upstream Water Users and with the CVP and SWP water contractors, either for water from specific reservoirs, or by substituting groundwater for surface water; [10]
> (vi) Substitution of water from potential north of Delta reservoirs, such as Sites Reservoir, for groundwater, or river diversions, or maintaining water quality in the Delta…"[11]

It is abundantly clear that the Lead Agency is proposing a project through the DEIR to implement management tools as required by the SVWMA. Nevertheless CEQA does not permit this approach of segmenting and piecemealing review of the whole of a project down to its component parts. The

[9] http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=788
[10] (Id.)
[11] (Id.)

proposed Sites Reservoir will directly advance SVWMA implementation, and DWR must complete environmental review of the whole of the program, as first promised in 2003, but long since abandoned. 13 (cont.)

III. DWR's Water Supply Contract Amendments Project Cannot Be Piecemealed from its Contract Extension Project, and from California WaterFix.

CEQA prohibits piecemealing and requires evaluation of the "whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." (14 Cal. Code Regs., § 15378(a); see also *Bozung v. Local Agency Formation Com.* (1975) 13.3d 263, 283-284 (preventing the submerging of environmental considerations by "chopping a large project into many little ones"); *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 396 (same).) Scoping comments, including those of the Plumas County Flood Control and Water Conservation District and the Natural Resources Defense Council, reminded DWR of its duty to avoid piecemealing and review the whole of the action to avoid prejudicial CEQA error.

Ignoring these warnings, DWR's Draft EIR provides the third of three segmented EIRs addressing DWR's intertwined efforts to facilitate and finance the massive and costly Delta tunnels project known as California WaterFix. Separately from the NOP and Draft EIR for the current project, DWR conducted two preceding separate reviews over protest:

- DWR approved the California WaterFix project on July 21, 2017 based on its certification of the Final BDCP/WaterFix EIR. DWR's WaterFix decision-making, and a project order relating to WaterFix (Project Order No. 40) filed the same day without any environmental review, failed to confront the WaterFix project's lack of legal and contractual authority for WaterFix revenue bonds, particularly in the absence of specific changes to timing and facilities limitations in the existing the existing State Water Project (SWP) contracts that would otherwise preclude eligibility. 14

- DWR approved the Water Supply Contract Extension Project on December 11, 2018, based on a Final EIR for that project DWR certified on November 13, 2018. DWR's decision and certification treated California WaterFix as a "separate, independent project" having independent utility in addressing debt compression problems under the long-term water supply contracts (Contract Extension Final EIR, 2-9). However, as detailed further below, DWR's review failed to address testimony, analyses and comments during 2018—some from DWR itself, or from other state reviewers—that demolished the foundation for this assumption of independence from WaterFix. They also demonstrated that the misnamed "extension" amendments proposed risky redefinition of contractual terms that would remove certain specific obstacles to imposing revenue bond debt for WaterFix in current SWP contracts.

Against this history, DWR's Draft EIR for the Water Supply Contract Extension Project amounts to piecemealing on top of piecemealing. If left uncorrected, DWR's misguided effort to decouple its environmental review of the current project from its Contract Extension review and WaterFix review would constitute a foundational error undermining the EIR's integrity as a decision-making document, and underscoring uncorrected deficiencies left uncorrected despite major criticisms in the two earlier reviews.

The current project's role in facilitating the tunnels is abundantly clear throughout the Draft EIR. Several illustrations include its title, which identifies Water Supply Contract Amendments *For Water Management and California WaterFix*, its inclusion of "cost allocation of WaterFix facilities" into the project objectives (Draft EIR, 4-1) and its proposed "changes to the Contracts to allocate costs of California WaterFix to the participating Public Water Agencies ("PWAs") and establishes new charge components to recover these costs." (*Id*., 3-1). The DEIR discloses its relationship to the Delta Tunnels, including in its project description that the Project would establish allocation factors for Tunnels facilities, and identify methods of calculating costs and repayment costs for the Tunnels. (DEIR, p. 4-8.)

For purposes of environmental analysis, however, the Draft EIR's environmental analysis remains steeped in denial, as if the project's active facilitation of one of the most costly and environmentally consequential infrastructure projects in California history could be segmented into nothingness. The Draft EIR portrays WaterFix, the same single project the proposed amendments are expressly designed to facilitate and help finance, as merely one of the proposed facilities "under consideration" by DWR, presented only for "informational purposes" and "not part of the proposed project evaluated in this EIR." (Draft EIR 2-10; see also id. at 5.1-8 ("The environmental effects of an increase in water reliability due to operation of California WaterFix are not part of this project and were evaluated in the California WaterFix EIR/EIS, and is not evaluated in this DEIR").)

With a similar level of denial, the current Draft EIR flouts scoping requests to provide an integrated analysis of both its proposed sets of contract amendments that would include assessment of the related Contract Extension Amendments. (Draft EIR 2-30, 31.) Even worse, the Draft EIR blandly refers to the September 11, 2018 Joint Legislative Budget Committee hearing on State Water Project contracts, without mentioning that the testimony and analysis presented at that hearing demolished the assumption of independence from WaterFix on which the Contract Extension Final EIR is founded. (*Id.*) To support a legally adequate environmental review, the entire record of testimony, oral hearings and correspondence from 2018 legislative proceedings on the Contract Extension Amendments needs to be made part of the record here and considered in the Water Supply Contract Amendments Project's environmental review.

DWR's claim that the contract extension amendments are independent of California WaterFix and the current project are misleading and demonstrably wrong. In fact, DWR has long been aware that revenue bonds could not be issued covering expenditures for the Delta tunnels without enacting specific contract revisions addressed in the "extension" amendments. That is partly because financing for this multibillion-dollar tunnels project could not realistically fit within the current expiration dates of 2035 to 2042.

Beyond the time frame for repayment, facilities limitations in the existing SWP contracts would otherwise prevent the coverage of the Delta tunnels project, including California WaterFix or earlier variants such as BDCP. That existing contractual limitation on covered facilities, included in article 1(hh)(8) of the SWP contracts,[12] is specifically proposed for removal in DWR's contract extension

14 (cont.)

[12] See, e.g., Santa Barbara County Flood Control and Water Conservation District's SWP contract (Santa Barbara SWP Contract), art. 1(hh)(8), https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-Project/Management/SWP-Water-Contractors/Santa-Barbara-County-Flood-Control-and-Water-Conservation-District/Files/Santa-Barbara-CC.pdf?la=en&hash=50978D6A89B5D21854ECA6CC160E3CAB9B9BFFAE.

amendments. Through the "extension" amendments, DWR proposes new authorization for "SWP revenue bonds to be issued to: (1) finance repairs, additions, and betterments to most facilities of the SWP without regard to whether the facilities were in existence prior to January 1, 1987, which is the current Contract requirement in Article 1(hh)(8); and (2) finance other capital projects (not already in the list in Article 1(hh) for which revenue bonds could be sold) when mutually agreed to by DWR and at least 80 percent of the affected Contractors."[13] When discussing revenue bonds in connection with the proposed Delta tunnels project, then called BDCP, "DWR's legal counsel" concluded that "BDCP is not on the list of approved projects that are eligible for funding, including through bond financing."[14]

For reasons detailed further in the attached letter of attorney Roger Moore dated September 11, 2018 (Moore letter), hearings--before the Senate Natural Resources and Water Committee (SNRWC) on July 3, 2018 and the Joint Legislative and Budget Committee (JLBC) on September 11, 2018--bear directly on the current Draft EIR's improper piecemealing from the contract extension amendment and WaterFix reviews. [15] This includes the foundational issue of the extension project's relationship to the Delta Tunnels and the Water Supply Contract Amendments.[16]

14 (cont.)

First, testimony at the September 11, 2018 JLBC hearing undermined the premise of independence from WaterFix upon which DWR's separate Contract Extension Final EIR was founded. That includes the testimony of DWR director Karla Nemeth, following questioning from Senator Richard Pan, that DWR plans to "use these amendments to finance WaterFix," and the testimony of Rachel Ehlers of the Legislative Accounting Office that the contract extension amendments would "affect and facilitate" WaterFix.[17] Facilitation of WaterFix through the contract extension amendments is also addressed in the testimony of Congressman McNerney and of Roger Moore at the same hearing.

Second, 2018 comments not addressed in either DWR's Contract Extension Final EIR or the current Draft EIR underscore the critical importance of integrated rather than fragmented review. Public

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[13] Contract Extension Draft EIR, p. 4-5.

[14] *See, e.g,* Letter from Jake Campos, STIFEL, to Mary Lou Cotton, SWPCA at 4 (March 19, 2014, included as Exhibit A to PCL's Contract Extension DEIR comments.

[15] See, e.g., DWR's Water Supply Contract Extension web page, including all linked documents (https://water.ca.gov/Programs/State-Water-Project/Management/Water-Supply-Contract-Extension); SNRWC's web page, including all linked documents for July 3, 2018 hearing and web link to video recording of hearing (https://sntr.senate.ca.gov/content/2018-informationaloversight-hearings); JLBC's web page, including all linked documents for September 11, 2018 hearing and cancelled August 30, 2018 hearing (https://www.senate.ca.gov/legislativebudget); video link to September 11, 2018 JLBC hearing on proposed SWP contract extension (http://calchannel.granicus.com/MediaPlayer.php?view_id=2&clip_id=5820).

[16] See, e.g., SNRWC Background Brief to July 3, 2018 hearing, p. 17 (referencing the recognition of SWP contractors and DWR that the proposed contract extension amendments are "a necessary, but not sufficient condition to incorporate WaterFix into the SWP," and the contention of many organizations that contract amendments remain premature while WaterFix issues are unresolved).

[17] Video link to September 11, 2018 JLBC hearing, *op cit.*; see also Moore letter, Exhibit 5, pp. 2, 5, fn. 2, 16-17 (quoting DWR Director's testimony) and p. 13, fn. 46 (referencing testimony of Roger Moore).

agency critics throughout California, from Plumas County and the Delta Counties Coalition to San Diego County, criticized DWR's efforts to finalize the contract extension without integrated review of all DWR's proposed amendments related to the Delta Tunnels, including the Water Supply Contract Amendments still awaiting public comment and completion of review. (Moore letter, Exhibit 3.) The Legislative Delta Caucus observed that these "poorly defined" amendments would have "potential adverse impacts far beyond their apparent scope. There is much that remains unknown regarding the extensive changes to the SWP contracts that are being proposed and how the changes will impact property taxes, water rates, the fiscal integrity of the SWP and General Fund." (Moore letter, Exhibit 4.) Following the 2018 legislative hearings, more than a dozen organizations identified numerous changed circumstances requiring additional environmental review since public comment closed in October 2016, only to have DWR, in its November 13, 2018 certification memo, respond with the *non-sequitur* that general issue areas were discussed (Moore letter, Exhibit 5). Commentary in major newspapers criticized the defective process and lack of transparency surrounding the contract extension, as well as DWR's attempts to leverage WaterFix indebtedness without adequate review and debate (Moore letter, Exhibit 6).

Third, the 2018 legislative proceedings helped verify that DWR has thus far sidestepped a major project component of the Contract Extension Amendments, to which the water supply amendments are closely connected. (See, e.g., *Planning and Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 904-920 (requiring CEQA analysis prior to amending contract provision).) As addressed in the legislative testimony of Roger Moore, echoing commenters on the Draft EIR (Moore letter, Exhibit 2), DWR's extension amendments would eliminate limitations on covered "facilities" under article 1(hh)(8) of current SWP contracts that would otherwise render WaterFix ineligible for revenue bond financing. By contrast, DWR's assurance that projects facilitated by the contract extension will be covered by separate CEQA review (e.g., Contract Extension FEIR 2-10, 134) ring hollow. DWR's Delta Tunnels EIR and project approval neither admitted nor analyzed dependence on a subsequent SWP contract amendment. CEQA review of later-approved projects would come too late to address the consequences of redefining covered "facilities," because the current contract language would already be eliminated with the first of DWR's two sets of proposed amendments.

14 (cont.)

Fourth, the Contract Extension FEIR undermines its premise that the contract extension amendments proposed by DWR have independent utility as a "separate, independent project" addressing debt compression problems. (Contract Extension FEIR, 2-9.) Debt compression is based on the comparatively short maturity dates of existing SWP contracts. (*id*.) The Contract Extension Final EIR recognized that the Evergreen Clause in Article 4 of the SWP contracts already provides a way to extend these dates. (E.g., Contract Extension FEIR, 2-3 to 2-5, 2-33.) Contrary to the Draft EIR's framing of the No Project Alternative, the presence of the Evergreen Clause does not allow for the rote assumption that without the project, non-benefiting contractors would be forced to bear the costs of WaterFix. Rather, section 4 would empower contractors to request a cleaner "opt out" provision some have requested since the inception of negotiations on project contracts—one which would allow terms to be extended without bearing *any* of the WaterFix costs facilitated by *either* set of proposed contract amendments. DWR has never shown its version of the extension amendments, including the proposed facilities redefinition, to be necessary to ensure continued water deliveries or responsibly address operation and maintenance needs. By facilitating the issuance of billions of dollars to construct the Delta Tunnels project, and perhaps other projects not currently eligible, DWR may under the guise of risk reduction force a risky escalation of indebtedness.

Lastly, as addressed in the written testimony of Roger Moore and the comments of the Delta

Counties Coalition (Moore letter, Exhibits 2, 3), Water Code prerequisites for proceeding to finality on the extension amendments (Wat. Code, §§ 147, 147.5) still have not been met. 14 (cont.)

Put another way, by enabling the financing and addition of new SWP facilities not meeting this earlier facilities limitation, the contract extension amendments would tangibly facilitate addition of the Delta tunnels to the SWP, and also make it easier for DWR and the most powerful SWP contractors to add further debt to finance other costly new facilities of their choosing. The further water supply amendments addressed in the current Draft EIR, also expressly designed to facilitate the Delta tunnels and their financing, need to be analyzed with the Contract Extension Amendments, and WaterFix itself, in a single cohesive environmental analysis.

The prospect of enabling approximately additional $17 billion in initial capital costs and $47 billion in further financing costs for the Delta tunnels alone[18] belies DWR's claim of fiscal prudence. More than that, however, inclusion of provisions facilitating the financing and implementation of WaterFix will subvert achievement of the Draft EIR's own project objectives to provide a "fair and equitable" approach to cost allocation and to maintain the "financial integrity" of the State Water Project. (Draft EIR, 4-2). Moreover, if DWR believes the water management changes would be worth implementing regardless of WaterFix, it cannot persist in bundling together those changes with WaterFix-facilitating provisions. Because they facilitate WaterFix, both sets of proposed contract amendments are likely to come at odds with more responsible and productive investments in 21st century water reliability and sustainability. Functioning as a wolf in sheep's clothing, the neutral sounding "contract extension" amendments, as assumed as a *fait accompli* in the current Draft EIR, add to rather than reduce the costs and risks associated with the SWP, and SWP contractors will foreseeably seek to have taxpayers absorb those costs.[19] Rather than placing the SWP on "sounder financial footing going forward," as DWR has claimed,[20] the combination of contract amendments facilitating WaterFix offering contractual cover to make the SWP even more risky and costly for taxpayers, ratepayers and the environment. 15

IV. Hydrology

A. Streamflow

1. Significant Past, Present, and Future Streamflow Depletion is Not Disclosed

Streamflow depletion is mentioned in generalities in the DEIR. "Groundwater modeling studies of the Sacramento Valley suggest that, on average, the flux of groundwater discharging to the rivers is approximately equal to the quantity of water that leaks from streams to recharge the aquifer system (Glenn Colusa Irrigation District and the Natural Heritage Institute 2010)."[21] This deceptive conclusory statement is only vaguely tempered by acknowledging that in some areas the rivers are losing streams. "The Sacramento and Feather rivers on the valley floor are gaining (water from 16

[18] Goldman and Sachs, Water Fix Financing Strategies, p. 5 (March 17, 2017).

[19] See, e.g., Wat. Code, § 11652 (SWP contractors "shall, whenever necessary, levy upon all property in the state agency not exempt from taxation, a tax or assessment sufficient to provide for all payments under the contract"); article 34 of SWP Water Supply Contracts.

[20] DWR, Executive Summary (March 9, 2018), p. 2, posted at https://www.water.ca.gov/Programs/State-Water-Project/Management/Water-Supply-Contract-Extension.

[21] DEIR p. 5.10-2.

groundwater enters the rivers) throughout most of the year, except in areas of depressed groundwater levels, where the water table has been artificially lowered through groundwater pumping. In these areas, the rivers are losing (water leaves the rivers and recharges the groundwater system) (Reclamation et al. 2013)."[22] However, the DEIR fails to disclose or map exactly where the areas are with depressed groundwater levels and where the rivers are losing flow. We submit one of DWR's maps that indicate areas of depressed groundwater[23] and stipulate that a revised and recirculated DEIR contain this and all other maps that would provide an adequate depiction of the existing conditions and problems.

There was a time when the public and policy makers believed that the CVP and the SWP operated within the law, albeit with more water on paper than could ever be available. Once the limits of hydrology caused DWR, the Bureau, and some of their contractors to look for tools to game the law – and the hydrology - of California, it became clearer that the state and federal governments have facilitated a destructively unrealistic demand for water. Ever willing to destroy natural systems to meet demand for profit, the San Joaquin River dried up and subsidence caused by groundwater depletion in the San Joaquin Valley is even cracking water conveyance facilities.[24] Enter conjunctive use where the Agencies facilitate and their contractors implement river water sales and pump groundwater to continue crop production as the DEIR reveals.[25] The continual, long-term groundwater overdraft in the San Joaquin Valley, the expansion of new permanent crops in both the San Joaquin and Sacramento valleys, and groundwater substitution transfers by CVP and SWP contractors *all* cause streamflow depletion. Failing to disclose how the CVP and SWP cause streamflow depletion is a major omission, as is the current state of streamflow depletion in the Sacramento River Hydrologic Region, the source for the CVP and SWP (Exhibit D).[26]

16 (cont.)

Expert testimony supports this (Exhibit E): "[t]hat the Sacramento Valley is already impacted by historical groundwater pumping with a decrease in the level of groundwater, the decrease in groundwater storage, and loss of flow in surface waters. These negative historical impacts to groundwater are consistent with the medium to high CASGEM ranks for the groundwater basins and the need to develop Sustainable Groundwater Management Plans. The construction of the WaterFix Project tunnels will only increase these historical impacts, because it will allow for more

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[22] *Id.* pp. 5.10.2-5.10.3

[23] Exhibit C. DWR at https://data.cnra.ca.gov/dataset/northern-region-groundwater-elevation-change-maps. Maps are being moved to the url above soon, as the former url is no longer operable (http://www.water.ca.gov/groundwater/data_and_monitoring/northern_region/GroundwaterLevel/gw_level_monitoring.cfm).

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

[25] "One possibility is that agricultural PWAs could be temporarily transfer or exchange surface water supply to other PWAs (likely for M&I supply), and these agricultural PWAs would then increase groundwater pumping as a replacement water source for transferred or exchanged water supplies [sic]. This could potentially result in an increase in groundwater pumping in the study area and the potential for a net deficit in aquifer volume or lowering of the local groundwater table." p. 6-8.

[26] Exhibit C. Custis, 2014. Graph for AquAlliance, Comparison of Ground Water Pumping and Accretion, Sacramento Valley 1920-2009.

transfer of groundwater from the Sacramento Valley across the Delta to export to the service areas."[27]

16 (cont.)

The significant past, present, and future Project and cumulative streamflow depletion must be presented, analyzed, and included in a recirculated DEIR.

B. The DEIR Fails to Disclose Adequately the Planned Increase in Water Transfers From the Sacramento River Watershed to South of the Delta.

If the WaterFix is built as planned with the capacity to take from 9,000 to 15,000 cubic feet per second ("cfs") from the Sacramento River, they will have the capacity to drain between 38% - 63% of the Sacramento River's average annual flow of 23,490 cfs at Freeport[28] (north of the planned WaterFix). As proposed, the WaterFix will also increase water transfers when the infrastructure for the Project has capacity:

> "Alternative 4 provides a separate cross-Delta facility with additional capacity to move transfer water from areas upstream of the Delta to export service areas and provides a longer transfer window than allowed under current regulatory constraints. In addition, the facility provides conveyance that would not be restricted by Delta reverse flow concerns or south Delta water level concerns. As a result of avoiding those restrictions, transfer water could be moved at any time of the year that capacity exists in the combined cross-Delta channels, the new cross-Delta facility, and the export pumps, depending on operational and regulatory constraints, including BDCP permit terms as discussed in Alternative 1A."[29]

17

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

The DEIR fails, as did the WaterFix's SDEIS/RDEIR, to illustrate the early history of water transfers and to provide more current information through 2014. Here are significant context and history that should be presented in another CEQA document.

- 1991. WY – Critical. Reported transfers amounted to 820,000 af.[30]
- 1992. WY – Critical. Reported transfers amounted to 193,000 af. (*Id.*)
- 1993. WY – Above Normal. No transfers appear to have occurred. (*Id.*)
- 1994. WY – Critical. Reported transfers amounted to 220,000 af. (*Id.*) [31]

[27] Custis, Kit 2016. Testimony for Part 1of the BDCP/WaterFix Change in Point of Diversion State Water Resources SWRCB hearing. p. 11.
[28] USGS 2009. http://wdr.water.usgs.gov/wy2009/pdfs/11447650.2009.pdf
[29] SDEIS/RDEIR Appendix A, pp. 5-15, 5-16.
[30] USBR, 2008. Draft Environmental Assessment for the *Option Agreement Between Glenn-Colusa Irrigation District, Bureau of Reclamation, and the San Luis & Delta-Mendota Water Authority for 2008 Operations*. (p.17)

- 2002. WY - Dry. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 172,000 af.[32]
- 2003. WY - Above Normal. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 206,000 af. (*Id*.)
- 2004. WY - Below Normal. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 120,500 af. (*Id*.)
- 2005. WY – Above Normal. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 5 af. (*Id.)*
- 2006. WY – Wet. Settlement Contractors in the Sacramento Valley received 100% of their allocation. No transfers were reported. (*Id.)*
- 2007. WY – Dry. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 147,000 af. (*Id.)*
- 2008. WY - Critical. Settlement Contractors in the Sacramento Valley received 100% of their allocation. GCID alone planned an 85,000 af transfer[33] of an expected cumulative total from the Sacramento Valley of 360,000 af.[34] Another source revealed that the actual transfers for that year were 233,000 af.[35]
- 2009. WY-Dry. Settlement Contractors in the Sacramento Valley received 100% of their allocation. The Bureau approved a 1-year water transfer program under which a number of transfers were made. Regarding NEPA, the Bureau issued a FONSI based on an EA. DWR opined that, "As the EWA's exclusive mechanism in 2009 for securing replacement water for curtailed operations through transfers, the DWB is limited to the maximum 600,000 acre feet analyzed in the EIS/EIR for the program."[36] Reported transfers amounted to 274,000 af.[37]

17 (cont.)

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

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

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

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

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

[36] DWR, 2009. Addendum to the Environmental Water Account Environmental Impact Statement/Environmental Impact Report http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=107 Re: 2009 Drought Water Bank Transfers State Clearinghouse #1996032083. (p. 3)

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

- 2010/2011. WYs – Below Normal, Wet. Settlement contractors in the Sacramento Valley received 100% of their allocation for both years. The Bureau approved a 2-year water transfer program through an Environmental Assessment/FONSI. The *2010-2011 Water Transfer Program* sought approval for 200,000 AF of CVP related water transfers and suggested there would be a cumulative total of 395,910 af of CVP and non-CVP water.[38] The Bureau asserted that no actual transfers were made under the *2010/2011 Water Transfer Program*, however, a Western Canal Water District Negative Declaration declared that 303.000 af were transferred from the Sacramento Valley and through the Delta in 2010.[39]
- 2012. Settlement contractors in the Sacramento Valley received 100% of their allocation. The Bureau planned 2012 water transfers of 76,000 AF of CVP water all through groundwater substitution, but it is unclear if CVP transfers occurred. [40] SWP contractors and the Yuba County Water Agency ("YCWA") did transfer water and the cumulative total transferred is stated to be 190,000 af.[41]
- 2013. WY – Dry. Settlement contractors in the Sacramento Valley received 100% of their allocation. The Bureau approved a 1-year water transfer program, again issuing a FONSI based on an EA. The EA incorporated by reference the environmental analysis in the 2010-2011 EA. The *2013 Water Transfer Program* proposed the direct extraction of up to 37,505 AF of groundwater (pp. 8, 9, 11, 28, 29, 35), the indirect extraction of 92,806 AF of groundwater (p. 31), and the cumulative total of 190,906 (p. 29).[42] Reported transfers amounted to 210,000 af.[43]
- 2014. Federal Settlement Contractors in the Sacramento Valley received 75% and State Settlement Contractors received 100% of their allocations. Total maximum proposed north-to-south transfers were 378,733 af and total maximum proposed north-to-north transfers were 295,924 af.[44] Reported north-to-south transfers amounted to 198,000 af.[45]

17 (cont.)

The WaterFix's SDEIS/RDEIR acknowledged that less water will be available for delivery south of the Delta with the WaterFix (SDEIS/RDEIR 4.3.1-9), preferred Alternative 4A "would increase water transfer demand compared to existing conditions," (*Id*.) and past transfers have taken place in all water year types and when SWP and CVP south-of-Delta contractors receive allocations of all kinds (DEIS/DEIR p. 5-51). Here, the Project's DEIR fails to present any of this information, obscuring analysis of significant impacts that will accompany increased transfers due to the Project.

[38] AquAlliance, 2010. Comments on the Draft Environmental Assessment and Findings of No Significant Impact for the *2010-2011 Water Transfer Program*. (pp. 1-2)
[39] Western Canal Water District, 2012. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2012 Water Transfer Program*. (p. 25)
[40] USBR 2012. Memo to the Deputy Assistant Supervisor, Endangered Species Division, Fish and Wildlife Office, Sacramento, California regarding Section 7 Consultation.
[41] Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2015 Water Transfer Program*. (p. 21)
[42] USBR, 2013. Draft Environmental Assessment and Findings of No Significant Impact for the *2013 Water Transfers.* (p. 29)
[43] Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2015 Water Transfer Program*. (p. 21)
[44] AquAlliance, 2014. *2014 Sacramento Valley Water Transfers.* (Data from: 1) USBR, 2014 EA for *2014 Tehama-Colusa Canal Authority Water Transfers*; 2) USBR and SLDMWA, 2014. EA/Negative Declaration, *2014 San Luis & Delta Mendota Water Authority Transfers*.)
[45] Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District 2015 Water Transfer Program*. (p. 21)

C. The SDEIS/RDEIR Fails to Correct the Lack of Disclosure of the Lead Agencies Conjunctive Use and Water Transfer Plans, Programs, Projects, and Funding.

The SDEIS/RDEIR fails to reveal that the current Project is part of many more plans, programs, projects, and funding to develop groundwater in the Sacramento Valley, to develop a "conjunctive" system for the region, and to place water districts in a position to integrate the groundwater into the state water supply. These are plans that the Bureau, together with DWR, water districts, and others have been pursuing and developing for many years. [46] [47]

An environmental impact statement should consider "[c]onnected actions." 40 C.F.R. §1508.25(a)(1). Actions are connected where they "[a]re interdependent parts of a larger action and depend on the larger action for their justification." *Id.* §1508.25(a)(1)(iii). Further, an environmental impact statement should consider "[s]imilar actions, which when viewed together with other *reasonably foreseeable or proposed agency actions*, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography." *Id.* §1508.25(a)(3). The Bureau's participation in funding, planning, attempting to execute, and frequently executing the programs, plans and projects has circumvented the requirements of NEPA. DWR's failure to conduct project or programmatic level CEQA review for water transfers and comprehensive environmental review for the *Sacramento Valley Water Management Agreement* has segmented a known, programmatic project for decades, which means that the Bureau is also failing to comply with state law as the CVPIA mandates. A list of connected actions and similar actions is found in the Cumulative Impacts section below. 18

D. The DEIR Fails to Disclose Adequately the Existing Geology that is the Foundation of the Sacramento River's Hydrology and the Sacramento Valley's Groundwater Basins.

The DEIR fail to note a significant geographic feature in the Sacramento River hydrologic region: the Cascade Range (p. 5.10-3). The Cascade Range is the genesis of the Sacramento River and some of its most significant tributaries: the Pit and the McCloud Rivers. The enormous influence of the Cascade Mountain Range on not only the Sacramento River, but the geology, soils, and hydrology of the Sacramento Valley's ground water basin is also completely missing. The California Department of Conservation describes the Range thusly: "The Cascade Range, a chain of volcanic cones, extends through Washington and Oregon into California. It is dominated by Mt. Shasta, a glacier-mantled volcanic cone, rising 14,162 feet above sea level. The southern termination is Lassen Peak, which last erupted in the early 1900s. The Cascade Range is transected by deep canyons of the Pit River. The river flows through the range between these two major volcanic cones, after winding across interior Modoc Plateau on its way to the Sacramento River."[48] The Sacramento River Watershed Program provides another simple, adequate description of its namesake: "The Sacramento River is the largest river and watershed system in California (by discharge, it is the second largest U.S. river draining into the Pacific, after the Columbia River). This 27,000–square mile basin drains the eastern slopes of the Coast Range, Mount Shasta, the 19

[46] Hauge, Carl, 2011. Presentation to the State Water Commission, September 14, 2011. pp. 11,12,14.

[47] McManus, Dan, 2014. Presentation to the State Water Commission, March 3, 2014. p. 2. "Future Water Supply Program (FWSP), Provides data collection and analysis to facilitate and support Sacramento Valley groundwater substitution transfers and conjunctive mgmt."

[48] California Department of Conservation, California Geological Survey, 2002. *California Geomorphic Provences*. [sic]

western slopes of the southernmost region of the Cascades, and the northern portion of the Sierra Nevada. The Sacramento River carries 31% of the state's total surface water runoff."[49]

The failure of the DEIR to provide this most basic geologic, geographic and hydrologic information on which the entire WaterFix and the Project depends causes the reader to wonder what else has been ignored or purposely omitted in the document.

19 (cont.)

E. The DEIR Fails to Disclose the Over Appropriation of Water Rights in the Sacramento River Watershed.

As mentioned above, the public is presented with inadequate baseline data with which to consider the consequences of the Project. The comparison of the average unimpaired flow of the Sacramento River Watershed stacked against the claims that have been made for water is but one example. The average annual unimpaired flow in the Sacramento River basin is 21.6 MAF, but the consumptive use claims are an extraordinary 120.6 MAF![50]

20

V. The DEIR Fails to Adequately Analyze Numerous Cumulative Impacts.

CEQA states that assessment of the project's incremental effects must be "viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines § 15065(a)(3).) "[A] cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." (CEQA Guidelines § 15065(a)(3).)

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

As discussed above, the Project is dependent on the hydrology of the Delta watershed to implement the proposed contract changes. The cumulative impact analysis is abysmal as it fails to consider other past, present and reasonably foreseeable future actions in the Delta watersheds by deferring analysis to a future day.

21

[49] http://www.sacriver.org/aboutwatershed/roadmap/sacramento-river-basin

[50] California Water Impact Network, AquAlliance, and California Sportfishing Protection Alliance 2012. *Testimony on Water Availability Analysis for Trinity, Sacramento, and San Joaquin River Basins Tributary to the Bay-Delta Estuary*.

As discussed, below, the DEIR fails to comport with these standards for cumulative impacts upon surface water and groundwater and fails to use the baseline for related transfer projects since the CalFed ROD was signed in 2000.

A. Failure to Maintain Key Infrastructure and Disclose Related Impacts

The lack of appropriate maintenance of Oroville Dam's spillways resulted in catastrophic spillway damage, massive debris and sediment releases into the Feather River, and an evacuation of approximately 188,000 people in February 2017. The only mention in the DEIR of this event and its impact on the SWP, Butte County, surrounding counties, and California is that "DWR is currently in the process of repairing the Oroville Dam spillways that were damaged by severe storms in early 2017."[51] Revelations that the catastrophe was avoidable were quickly made by experts.

- "Our Root Causes Analyses investigations have concluded that 'inappropriate' standards and guidelines, procedures and processes were used by the Department of Water Resources (DWR) and the associated Division of Safety of Dams (DSOD) to evaluate and manage the Risk of failure characteristics of the Gated Spillway. These standards and guidelines, procedures and processes failed to adequately and properly address Aging, Technological Obsolescence, and Increased Risk of failure characteristics of the Orville Dam Gated Spillway."[52]
- "There were many opportunities to intervene and prevent the incident, but the overall system of interconnected factors operated in a way that these opportunities were missed. Numerous human, organizational, and industry factors led to the physical factors not being recognized and properly addressed, and to the decision-making during the incident. The following are some of the key factors which are specific to DWR:
    - "The dam safety culture and program within DWR, although maturing rapidly and on the right path, was still relatively immature at the time of the incident and has been too reliant on regulators and the regulatory process.
    - "Like many other large dam owners, DWR has been somewhat overconfident and complacent regarding the integrity of its civil infrastructure and has tended to emphasize shorter-term operational considerations. Combined with cost pressures, this resulted in strained internal relationships and inadequate priority for dam safety.
    - "DWR has been a somewhat insular organization, which inhibited accessing industry knowledge and developing needed technical expertise.
    - "DWR's ability to build the appropriate size, composition, and expertise of its technical staff involved in dam engineering and safety has been limited by bureaucratic constraints."[53]

DWR had operated and maintained Oroville Dam for 49 years at the time of the incident. The DEIR should have disclosed DWR's institutional barriers ("relatively immature") to adequately build and maintain infrastructure; the cost of the repairs and maintenance of Oroville Dam, the "crown jewel"

21 (cont.)

[51] Project DEIR p. 2-5.
[52] Bea, Robert G. and Tony Johnson, 2017. Root Causes Analyses of the Oroville Dam Gated Spillway Failures and Other Developments.
[53] *** https://damsafety.org/sites/default/files/files/Independent%20Forensic%20Team%20Report%20Final%2001-05-18.pdf

of the SWP;[54] the cost of the mandate by the legislature to analyze all dams and infrastructure under the auspices of DWR;[55] and the short and long-term impacts on supply.

B. Sites Reservoir

The Sites Reservoir project would consist of a 1.2 to 1.8 million acre-foot reservoir created by two large dams on Stone Corral Creek and Funks Creek. Water to fill the Sites Reservoir would be diverted from the Sacramento River and pumped into the reservoir. Some water to fill Sites could also be diverted from the Colusa Drain. Sites could produce an estimated annual yield of 236 to 428 thousand acre-feet of water, depending on various diversion scenarios and constraints. How this water could be part of the Project, operated in conjunction with the Project, and how it would impact the Project are not disclosed or analyzed, failing CEQA's mandate that an assessment of the project's incremental effects must be "viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines § 15065(a)(3).) "[A] cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." (CEQA Guidelines § 15065(a)(3).)

The SVWMA NOI/NOP, mentioned above in II. B., specifically discloses the Sites Reservoir project.[56] "Role of Sites Reservoir. The Parties recognize that new off-stream surface storage is an essential part of the long-term water management program, and agree that Sites Reservoir is a potentially significant off-stream surface-water storage project that could help meet the goals and objectives of this Agreement, including providing capacity to increase the reliability of water supplies for Upstream and Export Water Users, flexibility during critical fish migration periods on the Sacramento River, and storage benefits for other CALFED programs. Work being undertaken pursuant to CALFED's Sites MOU will be integrated into this Agreement and the Parties will work with CALFED to accelerate feasibility studies and completion of appropriate environmental and permitting processes for the reservoir."[57]

21 (cont.)

C. Recently Past, Current, and Future Transfers are Not Disclosed.

As mentioned above in the Hydrology section, the DEIR failed to present significant past transfer records. Therefore, the public is deprived of knowledge or connection to recent periods of groundwater substitution transfer pumping and other groundwater impacting events, such as recent changes in groundwater elevations and groundwater storage, and the reduced recharge due to the recent periods of drought. Below is a list of transfers from the recent past that at a minimum should have been considered in the DEIR.

1. 2009. The Bureau approved a one-year water transfer program under which a number of transfers were made. Regarding NEPA, the Bureau issued a FONSI based on an EA.

[54] DWR. Accessed January 6, 2019. *Camp on Water!* flyer. https://water.ca.gov/-/media/DWR-Website/Web-Pages/What-We-Do/Recreation/Files/Publications/Lake-Oroville-Floating-Campsites.pdf

[55] Senate Bill 92 (Committee on Budget and Fiscal Review). https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB92

[56] 2001. The Sacramento Valley Water Management Agreement. pp. 8, 12, etc.

[57] *(Id.)* p. 12.

2. 2010-2011. The Bureau approved a two-year water transfer program. No actual transfers were made under this approval. Regarding NEPA, the Bureau again issued a FONSI based on an EA.
3. 2012. Settlement contractors in the Sacramento Valley received 100% of their allocation. The Bureau planned 2012 water transfers of 76,000 AF of CVP water all through groundwater substitution, but it is unclear if CVP transfers occurred. [58] SWP contractors and the Yuba County Water Agency ("YCWA") did transfer water and the cumulative total transferred is stated to be 190,000 af.[59]
4. 2013. WY – Dry. Settlement contractors in the Sacramento Valley received 100% of their allocation. The Bureau approved a 1-year water transfer program, again issuing a FONSI based on an EA. The EA incorporated by reference the environmental analysis in the 2010-2011 EA. The *2013 Water Transfer Program* proposed the direct extraction of up to 37,505 AF of groundwater (pp. 8, 9, 11, 28, 29, 35), the indirect extraction of 92,806 AF of groundwater (p. 31), and the cumulative total of 190,906 (p. 29).[60] Reported transfers amounted to 210,000 af.[61]
5. 2014. Federal Settlement Contractors in the Sacramento Valley received 75% and State Settlement Contractors received 100% of their allocations. Total maximum proposed north-to-south transfers were 378,733 af and total maximum proposed north-to-north transfers were 295,924 af.[62] Reported north-to-south transfers amounted to 198,000 af.[63]
6. 2015-2024. The Bureau and SLDMWA10-Year Water Transfer Program (aka Long-Term Water Transfers) was able to transfer up to 600,000 af per year, however, the FEIS/EIR was vacated in 2018.
7. 2018-2024. The Western Canal Water District and Richvale Irrigation District Water may transfer up to 60,000 af per year to south of the Delta.

21 (cont.)

D. Yuba Accord

The Yuba River is the major tributary to the Feather River. However, the role of the Yuba Accord is not presented in any way. The relationship between the federal and state Agencies seeking or facilitating transfer water it is illuminated in a 2013 Environmental Assessment. "The Lower Yuba River Accord (Yuba Accord) provides supplemental dry year water supplies to state and Federal water contractors under a Water Purchase Agreement between the Yuba County Water Agency and the California Department of Water Resources (DWR). Subsequent to the execution of the Yuba Accord Water Purchase Agreement, DWR and The San Luis & Delta- Mendota Water Authority (Authority) entered into an agreement for the supply and conveyance of Yuba Accord water, to

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

benefit nine of the Authority's member districts (Member Districts) that are SOD [south of Delta] CVP water service contractors." [64]

In a Fact Sheet produced by the Bureau, it provides some numerical context and more of DWR's involvement by stating, "Under the Lower Yuba River Accord, up to 70,000 acre-feet can be purchased by SLDMWA members annually from DWR. This water must be conveyed through the federal and/or state pumping plants in coordination with Reclamation and DWR. Because of conveyance losses, the amount of Yuba Accord water delivered to SLDMWA members is reduced by approximately 25 percent to approximately 52,500 acre-feet. Although Reclamation is not a signatory to the Yuba Accord, water conveyed to CVP contractors is treated as if it were Project water." [65] However, the Yuba County Water Agency ("YCWA") may transfer up to 200,000 under Corrected Order WR 2008-0014 for Long-Term Transfer and, "In any year, up to 120,000 af of the potential 200,000 af transfer total may consist of groundwater substitution. (YCWA-1, Appendix B, p. B-97.)." [66]

Potential cumulative impacts from the Project and the YCWA Long-Term Transfer Program from 2008 - 2025 are not disclosed or analyzed in the DEIR. As mentioned immediately above, the *2015-2024 Water Transfer Program* could transfer up to 600,000 af per year through the same period that the YCWA Long-Term Transfers are potentially sending 200,000 af into and south of the Delta. How these two projects operate simultaneously could have a very significant impact on the environment and economy of the Feather River and Yuba River's watersheds and counties as well as the Delta is not any part of the Project's DEIR. The involvement of Browns Valley Irrigation District and Cordua Irrigation District in both long-term water transfer programs must also be considered. If the Project is not withdrawn, the Yuba Accord and other Yuba River water transfers' cumulative impacts must be analyzed and presented to the public in a revised draft DEIR.

Also not available in the DEIR is disclosure of any issues associated with the Yuba River transfers that have usually been touted as a model of success. The Yuba County Water Agency ("YCWA") transfers have encountered troubling trends for over a decade that, according to the draft Environmental Water Account's EIS/EIR, were mitigated by deepening domestic wells (2003 p. 6-81). While digging deeper wells is at least a response to an impact, it hardly serves as a proactive measure to avoid impacts. Additional information finds that it may take 3-4 years to recover from groundwater substitution in the south sub-basin[67] although YCWA's own analysis fails to determine how much river water is sacrificed to achieve the multi-year recharge rate. None of this is found in the Project DEIR. What was found in the *2015-2024 Water Transfer Program*'s environmental review is that even the inadequate SACFEM2013 modeling reveals that it could take more than six years in the Cordua ID area to recover from multi-year transfer events, although recovery was not defined (pp, 3.3-69 to 3.3-70). This is a very significant impact that is not addressed cumulatively in the DEIR.

21 (cont.)

[64] Bureau of Reclamation, 2013. Storage, Conveyance, or Exchange of Yuba Accord Water in Federal Facilities for South of Delta Central Valley Project Contractors.
[65] Bureau of Reclamation, 2013. Central Valley Project (CVP) Water Transfer Program Fact Sheet.
[66] State Water Resources Control Board, 2008. ORDER WR 2008 - 0025
[67] 2012. *The Yuba Accord, GW Substitutions and the Yuba Basin*. Presentation to the Accord Technical Committee. (pp. 21, 22).

E. Other Projects

Additional projects with cumulative impacts upon groundwater and surface water resources affected by the proposed project:

1. The DWR Dry Year Purchase Agreement for Yuba County Water Agency water transfers from 2015-2025 to SLDMWA.[68]
2. Installation of numerous production wells by water districts that sell water, many with the use of public funds such as Butte Water District,[69] GCID, Anderson Cottonwood Irrigation District,[70] RD108, and Yuba County Water Authority, [71] among others.

21 (cont.)

VI. Additional Comments and Questions

A. Reduced Reliance on Water From the Delta

Water Code Section 85021 requires that all regions of California reduce their dependence on water imported from the Delta: "The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts." How will the proposed Project adhere to this requirement?

22

B. Type of Environmental Review

"This EIR may also be used by the PWAs, as responsible agencies under CEQA, in their discretionary approval processes within their jurisdictions to meet their CEQA requirements."[72]

2. The DEIR fails to disclose *how* the EIR could be used in the future by the PWAs. It again leads to the confusion that is throughout the DEIR with assertions that it is a project document while presenting all 19 areas of analysis in Chapter 5, *Environmental Analysis*, as programmatic. The Lead Agency must clarify what it intended in allowing PWAs to "[m]eet their CEQA requirements."

23

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

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

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

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

[72] Project DEIR. p. 1-3.

C. Oversight Lacking for Water Transfers and Exchanges

The Lead Agency takes a very hands-off view of oversight with the transfers and exchanges proposed in the Project. Chapter 4 makes this very clear:

> "4.5 REQUIRED PERMITS AND APPROVALS
> Operation of the SWP is subject to ongoing environmental regulations, including water rights, water quality, and endangered species protection, among other State and federal laws and regulations. The proposed project would be consistent with current SWP operations; therefore, no permits or approvals from the State Water Board or related to endangered species are required for the proposed project. DWR is evaluating if any other approvals from other agencies may be required. The proposed project will require approvals by the PWAs and DWR to execute the Contract amendments. See the discussion in Chapter 1, Introduction, on the uses of this DEIR."[73]

If "DWR is evaluating if any other approvals from other agencies may be required," why is there no mention of how the California Department of Fish and Wildlife participated as a responsible agency in the past. In addition, DWR has material such as checklists and guidance documents on its web site that it uses for current and past transfers but this is not disclosed.[74] Below is a list.

- *DRAFT Technical Information for Preparing Water Transfer Proposals (Water Transfer White Paper) Information for Parties Preparing Proposals for Water Transfers Requiring Department of Water Resources or Bureau of Reclamation Approval December 2015* (Exhibit F)
- *California Department of Water Resources Water Transfers Program Flow Meter Installation and Calibration Certification Report* (Exhibit G)
- *Informal Guidance for Agencies Requesting Use of State Water Project Facilities: GHG Emissions Assessment for CEQA Purposes* (Exhibit H)
- *Information Requirements for Sellers Proposing to Transfer Water Made Available Through Reservoir Reoperation* (Exhibit I)
- *Information Requirements for Sellers Proposing to Transfer Water Made Available Through Groundwater Substitution* (Exhibit J)
- *Information Requirements for Sellers Proposing to Transfer Water Made Available Through Crop Idling* (Exhibit K)
- *Management of Water Transfers in California and DWRs Role* [2014] (Exhibit L)

Will there be similar material for the proposed Project's transfers and exchanges? If so, why wasn't this discussed in the DEIR? If similar material will not be used, why not?

24

In addition, in the 6.1.3 Cumulative Impact Analysis section, the Lead Agency asserts that it has "no authority" over the two significant cumulative impacts from the implementation of the Project.

- Groundwater Supplies (p. 6-8)
- Subsidence (p. 6-10)

[73] Project DEIR, p. 4-8.
[74] https://water.ca.gov/Programs/State-Water-Project/Management/Water-Transfers

This contradicts what is found in Exhibits F through I. Exhibit F states:

> "New water determinations are also needed to satisfy the legal criteria under Water Code Section 1810(d) that require the owner of conveyance facilities to ensure that the transfer will not cause injury to other water users; and to satisfy requirements for water accounting under the COA between DWR and Reclamation when one of the Projects either conducts or facilitates a water transfer— again, to ensure no injury. New water criteria are also used by DWR for the same purpose in reviewing and approving transfers under specific provisions of its various water rights settlement agreements.
>
> "Transfers are also evaluated to assure that the other two Section 1810(d) requirements are met: that the transfer result in (1) no unreasonable impacts on fish and wildlife and instream uses, and (2) no unreasonable economic or environmental impact on the county in which the transfer water originates."[75]

The DEIR fails to place these requirements on the proposed Project's transfers and exchanges and fails to explain what exempts them. This is a major omission that renders the DEIR seriously inadequate. Either the transfers must follow past practices that DWR and the Bureau have followed under Water Code Section 1810, the COA, the federal Endangered Species Act, and the California Endangered Species Act, and more or there must be an explanation why other agencies and DWR have no authority. Merely stating that, "DWR is evaluating if any other approvals from other agencies may be required,"[76] and "[b]ecause DWR has no information on specific implementation of the transfers and exchanges from the proposed project and it has no authority to implement mitigation measures in the PWA service area, the cumulative impact would remain significant and unavoidable," clearly fails to meet state and federal legal requirements. [77]

In addition, the failure to propose mitigation for cumulatively significant impacts to *Groundwater Supplies* and *Subsidence* due to DWR's asserted "no authority," means that significant and irretrievable impacts to groundwater and land subsidence are fully permitted by the proposed Project. Therefore, the impacts remain significant and deemed unavoidable. If DWR believes that is has no authority, how may it act as the lead agency? Pursuant to CEQA, ""lead agency" means the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment." (Public Res. Code § 21067.) As such, the lead agency must have authority to require imposition of alternatives and mitigation measures to reduce or avoid significant project effects, and must have the authority to disapprove of the project altogether.

24 (cont.)

VII. Conclusion

The Lead Agency's careless treatment of the serious issues enumerated above leave the DEIR woefully inadequate. In so doing, this deprives decision makers and the public of their ability to evaluate the potential environmental effects of this Project and violates the full-disclosure purposes and methods of CEQA. For each of the foregoing reasons, we urge the Lead Agency to withdraw

25

[75] DWR, 2015. *DRAFT Technical Information for Preparing Water Transfer Proposals (Water Transfer White Paper) Information for Parties Preparing Proposals for Water Transfers Requiring Department of Water Resources or Bureau of Reclamation Approval December 2015*. p. 3. Web accessed January 2019.
[76] Project DEIR p. 4-8.
[77] *Id.* p. 6-9.

the environmental review document for this Project. If DWR chooses to move forward, it must substantially revise and recirculate another DEIR for public and agency review and comment. 25 (cont.)

The AquAlliance coalition respectfully requests notification of any meetings or actions that address the Project. 26

Sincerely,

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ADMITTED IN CALIFORNIA

December 11, 2018

Karla Nemeth, Director
California Department of Water Resources
1416 9th Street, Room 1115
Sacramento, CA 9581

via email (Janiene.Friend@water.ca.gov)

Re: Prematurity of Final Decision By Lead or Responsible Agencies to Authorize DWR's Proposed "Contract Extension" Amendments

Dear Ms. Nemeth:

We represent counties and other agencies from the Delta region and northern Sacramento Valley in the coordinated proceeding in Sacramento County Superior Court on DWR's proposed California WaterFix project (JCCP 4942), including the Counties of San Joaquin, Contra Costa, Solano, Yolo, Butte, and Plumas, as well as Central Delta Water Agency, Contra Costa County Water Agency, Plumas County Flood Control and Water Conservation District, and Local Agencies of the North Delta. In DWR's pending WaterFix validation action in JCCP 4942, these public agencies, among others, dispute DWR's authority to impose billions of dollars in revenue bond debt for California WaterFix under the State Water Project (SWP) contracts and other laws.

DWR's efforts to impose binding debt for the Delta Tunnels project (a.k.a. "WaterFix") also relate closely to its proposed "contract extension" amendments to SWP contracts set to expire starting in 2035. The beleaguered and massively expensive Delta Tunnels project is and remains, the proverbial elephant in the room. The amendments not only extend the contracts through 2085; they also propose to remove existing constraints on covered "facilities" that would otherwise prevent imposing revenue bond debt for WaterFix, and potentially other costly projects opposed by some contractors and the public. Four members of Congress, noting that "it is clear that DWR's request for a contract extension is rooted in its desire to bond the cost of WaterFix," recently warned that making "such a significant and costly decision" would be premature and risky prior to determination of the validation action (Exhibit 1). Moreover, proceeding to final approval

would piecemeal consideration of the extension amendments from a second set of "water supply" contract amendments facilitating WaterFix, for which Draft EIR comments are not due until January 9, 2019.

When DWR certified its Contract Extension Final EIR on November 13, 2018, it did not make a final project decision, and instead indicated that the State Water Project Analysis Office and Office of Chief Counsel would first issue a "follow-on" memorandum and recommendation. Metropolitan Water District of Southern California (MWD) and Santa Clara Valley Water District (SCVWD) appear to have improperly calendared the contract extension for consideration as responsible agencies without even waiting for the lead agency's evaluation and project decision, much less any opportunity for public review and discussion. To avoid a high potential for confusion, uncertainty, and prejudice, decisions must clearly inform the public of the timing of any Notices of Determination under CEQA, and any final authorizations subject to the requirements of the validation statute (Code Civ. Proc., §§ 860, et seq.).

As detailed below, it is both premature and risky for DWR as lead agency, or any responsible agencies, to finally authorize DWR's proposed contract extension amendments at this time. First, deficiencies in the record preclude final determination by both lead and responsible agencies under CEQA. Absent from the documents referenced in DWR's November 13, 2018 certification memorandum and the responsible agency agenda items are the complete hearings, oral and written testimony (including testimony from one of the undersigned counsel attached in written form as Exhibit 2), and correspondence from closely related legislative hearings on DWR's proposed contract extension. Hearings before the Senate Natural Resources and Water Committee (SNRWC) on July 3, 2018 and the Joint Legislative and Budget Committee (JLBC) on September 11, 2018, bear directly on the environmental review for the contract extension.[1] This includes the foundational issue of the extension project's relationship to the Delta Tunnels and the separately reviewed Water Supply Contract Amendments—yet this critically important relationship is not analyzed in DWR's Final EIR and certification.[2]

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[1] See, e.g., DWR's Water Supply Contract Extension web page, including all linked documents (https://water.ca.gov/Programs/State-Water-Project/Management/Water-Supply-Contract-Extension); SNRWC's web page, including all linked documents for July 3, 2018 hearing and web link to video recording of hearing (https://sntr.senate.ca.gov/content/2018-informationaloversight-hearings); JLBC's web page, including all linked documents for September 11, 2018 hearing and cancelled August 30, 2018 hearing (https://www.senate.ca.gov/legislativebudget); video link to September 11, 2018 JLBC hearing on proposed SWP contract extension (http://calchannel.granicus.com/MediaPlayer.php?view_id=2&clip_id=5820).

[2] See, e.g., SNRWC Background Brief to July 3, 2018 hearing, p. 17 (referencing the recognition of SWP contractors and DWR that the proposed contract extension amendments are "a necessary, but not sufficient condition to incorporate WaterFix into

Second, 2018 comments, mainly referenced to legislative hearings, underscore the prematurity of final approval. Public agency critics throughout California, from Plumas County and the Delta Counties Coalition to San Diego County, criticized DWR's efforts to finalize the contract extension without integrated review of all DWR's proposed amendments related to the Delta Tunnels, including the Water Supply Contract Amendments still awaiting public comment and completion of review. (Exhibit 3.) The Legislative Delta Caucus observed that these "poorly defined" amendments would have "potential adverse impacts far beyond their apparent scope. There is much that remains unknown regarding the extensive changes to the SWP contracts that are being proposed and how the changes will impact property taxes, water rates, the fiscal integrity of the SWP and General Fund." (Exhibit 4.) Following the 2018 legislative hearings, more than a dozen organizations identified numerous changed circumstances requiring additional environmental review since public comment closed in October 2016, only to have DWR, in its November 13, 2018 certification memo, respond with the *non-sequitur* that the general issue areas were discussed in 2016 (Exhibit 5). Commentary in major newspapers criticized the defective process and lack of transparency surrounding the contract extension, as well as DWR's attempts to leverage WaterFix indebtedness without adequate review and debate (Exhibit 6).

Third, testimony at the September 11, 2018 JLBC hearing undermines the premise of independence from WaterFix upon which DWR's separate Contract Extension Final EIR is founded. That includes your own testimony on DWR's behalf, following questioning from Senator Richard Pan, that DWR plans to "use these amendments to finance WaterFix," and the testimony of Rachel Ehlers of the Legislative Accounting Office that the contract extension amendments would "affect and facilitate" WaterFix.[3] Facilitation of WaterFix through the contract extension amendments is also addressed in the testimony of Congressman McNerney and of Roger Moore at the same hearing.

Fourth, DWR sidesteps meaningful analysis of a major project element. (See, e.g., *Planning and Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 904-920 (requiring CEQA analysis prior to amending contract provision).) As addressed in the legislative testimony of Roger Moore, echoing commenters on the Draft EIR (Exhibit 2), DWR's extension amendments would eliminate limitations on covered "facilities" under article 1(hh)(8) of current SWP contracts that would otherwise render WaterFix ineligible for revenue bond financing. The Final EIR fails to address public comments on impacts that would reasonably result from such a change in language. (See, e.g., PCL, et al.'s October 16, 2016 EIR Comments, p. 6, and Ex. A, p. 4.) By contrast, DWR's assurance that projects facilitated by the contract

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the SWP," and the contention of many organizations that contract amendments remain premature while WaterFix issues are unresolved).

[3] Video link to September 11, 2018 JLBC hearing, *op cit.*; see also Exhibit 5, pp. 2, 5, fn. 2, 16-17 (quoting DWR Director's testimony) and p. 13, fn. 46 (referencing testimony of Roger Moore).

extension will be covered by separate CEQA review (e.g., FEIR 2-10, 134) ring hollow. DWR's Delta Tunnels EIR and project approval neither admitted nor analyzed dependence on a subsequent SWP contract amendment. Critically, CEQA review of later-approved projects would come too late to address the consequences of redefining covered "facilities," because the current contract language would already be eliminated.

Fifth, the FEIR undermines its premise that the contract extension amendments proposed by DWR have independent utility as a "separate, independent project" addressing debt compression problems. (FEIR, 2-9.) Debt compression is based on the comparatively short maturity dates of existing SWP contracts. (*id.*) And the FEIR recognizes that the Evergreen Clause in Article 4 of the SWP contracts already provides a way to extend these dates. (E.g., FEIR, 2-3 to 2-5, 2-33.) DWR has not shown its version of the amendments, including the proposed facilities redefinition, to be necessary to ensure continued water deliveries or responsibly address operation and maintenance needs. By facilitating the issuance of potentially billions of dollars to construct the Delta Tunnels project, and perhaps other projects not currently eligible, DWR may under the guise of risk reduction force a risky escalation of indebtedness.

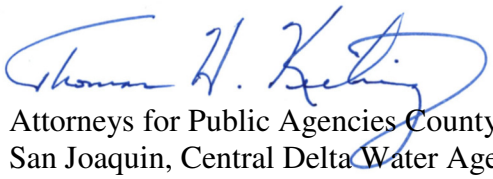
Sixth, as addressed in the written testimony of Roger Moore and the comments of the Delta Counties Coalition (Exhibits 2, 3), Water Code prerequisites for proceeding to finality on the extension amendments (Wat. Code, §§ 147, 147.5) still have not been met.

Lastly, to avoid the piecemealing problem discussed in Plumas County's letter (Exhibit 3), all DWR's proposed amendments must be reviewed and considered together prior to finality, including the proposed extension amendments and Water Supply Contract Amendments.

Respectfully,

Roger B. Moore
Law Office of Roger B. Moore

Thomas H. Keeling
Freeman Firm, a PLC



Attorneys for Public Agencies County of San Joaquin, Central Delta Water Agency, County of Contra Costa, Contra Costa County Water Agency, County of Solano,

County of Yolo, County of Butte, County of Plumas, and Plumas County Flood Control and Water Conservation District

Osha Meserve
Soluri Meserve, a Law Corporation

Attorney for Local Agencies of the North Delta

cc: Metropolitan Water District of Southern California
Santa Clara Valley Water District
State Water Contractors, Inc.

EXHIBIT 1

Congress of the United States
Washington, DC 20515

September 10, 2018

The Honorable Toni Atkins
California Senate President pro Tempore
State Capitol, Room 205
Sacramento, CA 95814

The Honorable Holly Mitchell
Chair, Joint Legislative Budget Committee
State Capitol, Room 5080
Sacramento, CA 95814

The Honorable Anthony Rendon
California Assembly Speaker
State Capitol, Room 219
Sacramento, CA 95814

The Honorable Phil Ting
Vice Chair, Joint Legislative Budget Committee
State Capitol, Room 6026
Sacramento, CA 95814

RE: Hearing on Department of Water Resources: Proposed Water Supply Contract Extensions & Amendments

Dear Pro Tem Atkins, Speaker Rendon, Chair Mitchell, and Vice Chair Ting:

As Californians and Members of Congress, we are writing to request that the Joint Legislative Budget Committee ("Committee") hearing, which was originally scheduled for August 30th ande postponed until September 11th, be canceled pending a ruling by the Sacramento County Superior Court on the Department of Water Resources' (DWR) validation action for the California WaterFix project. In its validation action, DWR is asking the court to affirm that it has the legal authority to issue bonds to pay for the $17 billion twin tunnels project.

By holding this hearing, the Committee would take the first step towards extending the State Water Project (SWP) contract through 2085. It is our view that this step is premature, as the current SWP contract does not expire for an additional seventeen years. It is clear that DWR's request for a contract extension is rooted in its desire to bond for the cost of WaterFix as it is unlikely that DWR will find lenders to issue bonds that will mature beyond the life of its contract, which in this case, is seventeen years. Such a bond would have higher financing costs than a thirty-year bond. Until there is a determination on DWR's validation action, the Committee lacks the information needed to make such a significant and costly decision.

Additionally, we are deeply concerned about the exorbitant cost of this project and the lack of transparency throughout this process. Should the hearing be held, and the project move forward, Californians would be saddled with billions of dollars in debt without further input from the state legislature or the public.

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Friends of the River
1418 20th Street, Suite 100
Sacramento, CA 95811

January 9, 2019

Cassandra Enos-Nobriga
Executive Advisor, State Water Project
Department of Water Resources

ContractAmendment_comments@water.ca.gov via E-Mail

Dear Executive Advisor Enos-Nobriga:

Re: **Comments on Draft EIR on Proposed SWP Water Supply Contract Amendments for Water Management and California WaterFix**

By this comment letter our eleven public interest organizations ***object*** to approval of the proposed Department of Water Resources' ("DWR") State Water Project ("SWP") Water Supply Contract ("WSC") amendments and comment that the Draft Environmental Impact Report

1

("DEIR") for the project is legally inadequate.[1] The proposed project and DEIR fail to satisfy the requirements of the California Environmental Quality Act ("CEQA") and DWR's obligations under state law. By this comment letter our public interest organizations object to approval of the SWP WSC amendments project as well as the SWP WSC amendments DEIR. Due to the DEIR being fundamentally and basically inadequate and conclusory in nature, any meaningfully public review and comment regarding the proposed project has been precluded. As such, a new DEIR must be recirculated to provide the public with the data and analysis needed to make an informed decision regarding the environmental impacts of the proposed project. At the core of an EIR lies a duty to provide both public agencies and the public with *detailed information* about the effect the project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.[2] Here, DWR fails to provide both the public and public agencies with sufficient information on all fronts through omission, incomplete data, and unfinished analysis.

1 (cont.)

I. <u>The DEIR fails to provide the correct scope of the project resulting in a piecemeal review</u>

Submitting a piecemeal review cuts directly against the CEQA process.[3] The failure of the DEIR to include both the California WaterFix ("WaterFix") and the Contract Extension projects in the scope of the current project amounts to improperly chopping up a large project into small pieces.[4] Here, the sum of the three projects, and the environmental impacts associated with them, is greater than each of their parts.

The omission of the WaterFix project from the scope of the current project runs contrary to both statutory and case law. Section 4.3 of the DEIR states the proposed project has the following objectives:

1) Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area.

2) Provide a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity.

2

[1] AquAlliance, California Water Impact Network, California Sportfishing Protection Alliance, Center for Biological Diversity, Center for Food Safety, Environmental Justice Coalition for Water, Environmental Water Caucus, Friends of the River, Planning and Conservation League, Restore the Delta, and Sierra Club California join in these comments.

[2] California Public Resources Code § 21061

[3] "It is well established that CEQA forbids 'Piecemeal' review of the significant environmental impacts of a project." (*Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1222.)

[4] CEQA mandates "that environmental considerations do not become submerged by chopping a large project into many little ones, each with a minimal potential impact on the environment, which cumulatively may have disastrous consequences." (*Bozung v. Local Agency Formation Com.* (1975) 13.3d 263, 283-284.)

Additional language throughout the DEIR makes clear the amendments are designed to create a direct funding mechanism for the WaterFix. The language under section 3.1 states "The proposed project proposes changes to the Contracts to allocate costs of California WaterFix to the participating Public Water Agencies ("PWAs") and *establishes new charge components* to recover these costs." Despite this, the DEIR omits any inclusion of the potential impacts of the WaterFix in discussing environmental impacts, mitigation measures, alternatives, and cumulative impacts. This is shown through the plain language of the DEIR, in section 5.1.1.3 DWR states "The environmental effects of an increase in water reliability due to operation of California WaterFix *are not part* of this project and were evaluated in the California WaterFix EIR/EIS, and is not evaluated in this DEIR." Again, under section 2.2.2 the DEIR states that the Waterfix, while listed as a proposed facility is presented for informational purposes and *is not part* of the proposed project evaluated in this EIR.

Both statutory and case law show that analysis of the Waterfix should have been included in the DEIR and analyzed in conjunction with the additional contract amendments. CEQA, in Public Resources Code § 21100(a), requires that all "lead agencies shall prepare, or cause to be prepared by contract, and certify the completion of, an environmental impact report [EIR] on any project which they propose to carry out or approve that may have a significant effect on the environment."

2 (cont.)

The Public Resources Code § 21065 definition of "project," means an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which is any of the following: (a) An activity directly undertaken by any public agency. (b) An activity undertaken by a person which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies. (c) An activity that involves the issuance to a person of the lease, permit, license, certificate, or entitlement for use by one or more public agencies.

The CEQA Guidelines provide a further definition of "project." Pursuant to Guidelines § 15378(a), "'Project' means the *whole of an action*, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, . ." (Emphasis added.) The subsections following that language are virtually identical to the Public Resources Code § 21065 language.

Guideline § 15378(b) sets forth a list of what the term "project" does not include. Guideline § 15378(b)(4) in the list exempts from being a "project":

> The creation of government funding mechanisms or other government fiscal activities, which *do not* involve any commitment to any *specific project* which may result in a potentially significant physical impact on the environment.

It is clear under the CEQA Guidelines including § 15378(b)(4) that "the creation of government funding mechanisms or other government fiscal activities" which involve commitment to a *specific project* which may result in a potentially significant physical impact on the environment, is an activity, a "project," which must be preceded by preparation of a legally sufficient EIR.

The creation of government funding mechanisms or other government fiscal activities are exempted from being a "project" so long as they do not involve a commitment to a specific project. Finally, Guideline § 15378(b)(4)(b) limits the exemption to activities "which do not involve any commitment to any specific project. . ." (Emphasis added.) The Court explained in *Lopez v. Sony Electronics, Inc.* (2018) Cal.5th 627, 635,

> 'Any' is a term of broad inclusion, meaning 'without limit and no matter what kind.' (*Delaney v. Superior Court* (1990) 50 Cal.3d 785, 798.) Applied here, the word 'any' means that section 340.8 applies to all actions described in the statute unless an express exception is made. (See *Delaney* , at p. 798.)

Here, the DEIR makes clear that a primary purpose of the proposed amendments is to provide funding *specifically* to the WaterFix, including establishing new charge components allocated to the funding the WaterFix. Thus, the project's reasonably foreseeable outcome is a substantial contribution to the implementation of the WaterFix. The failure to address the WaterFix and the environmental impacts that could occur when combined with increased water transfers and exchanges makes the DEIR incomplete. Most importantly, it keeps public agencies and the public from having informed discussions regarding this projects environmental impacts.

In addition to being a funding mechanism for a *specific* project, the proposed project's environmental impacts cannot be untethered from those of the WaterFix. The sum of the impacts from the two projects is greater than their parts. The WaterFix would increase diversion from the north Delta facility to 9,000 cubic feet per second.[5] The proposed project would, as stated in Chapter 5.1.1.3, increase the *frequency*, *duration*, and *timing* of water transfers and exchanges. Thus, the supply capacity is increased by the WaterFix, and the ability to use that increased capacity is being facilitated by the proposed project's contract amendments. Here, not only will the proposed project create funding specifically for the WaterFix, it will magnify the environmental impacts associated with it. The Court in *City of Redlands v. County of San Bernardino* found that CEQA extends beyond changes in the agency's policy to the "ultimate consequences of such changes to the physical environment." (*Court in City of Redlands v. County of San Bernardino* (2002) 96 Cal.App.4th 398, 406.) The failure of the DEIR to include WaterFix impacts in conjunction with the proposed project results in an inability for the public to analyze the environmental impacts of the current project. In *Santiago Water District v. County of Orange*, the Court found that in failing to include in the EIR construction of water delivery facilities that were an integral part of the project "some important ramifications of the proposed project remained hidden from view at the time the project was being discussed and approved." (*Court in Santiago Water District v. County of Orange* (1981) 118 Cal.App.3d 818, 829-831.) Similarly, because environmental impacts of the current project are magnified by the implementation of the WaterFix, failure to include the WaterFix in the scope of the project keeps ramifications of the proposed project hidden from view.

2 (cont.)

[5]http://www.mwdh2o.com/DOCSVCsPubs/WaterFix/assets/cawaterfix_infrastructure_whitepaper_factsheet.pdf

Lastly, the failure of the DEIR to include the Contract Extension project in the scope of the current project renders the DEIR incomplete. As discussed below, and shown through the DEIR, the proposed project has environmental impacts. Guideline § 15151 states "An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably foreseeable." Here, the reasonably foreseeable impacts of the project vary depending on the time horizon that those impacts will occur. To alternately acknowledge that a project will have environmental impacts, yet conversely fail to include the Contract Extension project in the project analysis, makes determination of the impacts of the current project impossible. The severity of the impacts weighed in *conjunction* with the length the impacts will occur is the only way to provide both the public, and public agencies, with information needed to make an informed decision on the project.

2 (cont.)

Due to the failure to include both the WaterFix and the Contract Extension projects in the scope and analysis of the current DEIR, the DEIR is incomplete.

II. Recent agreements, including amendments to the Coordinated Operating Agreement ("COA"), make the DEIR's environmental analysis and reliance on "Table A" water amounts incomplete

The DEIR states in section 5.1.1.3 "The proposed project would not build or modify existing SWP facilities and would not change each PWA's contractual maximum Table A amounts." DWR relies heavily on their analysis of environmental impacts that annual Table A amounts would not increase under the proposed project. However, news of recent agreements between California and the Federal government indicate that the SWP may relinquish an average of 100,000 acre-feet of water per year to customers of the Central Valley Project.[6] Certain years would allow up to maximum amounts of 207,000 acre-feet of water.[7]

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The removal of 100,000 acre-feet of water from The SWP is a greater amount than all but 6 of the 29 PWAs within the SWP. A relinquishment of this amount of water has a similar impact as an increase in Table A amounts. The rationale for this being that a decrease in the base level of water available would result in a greater amount of water being needed for a PWA to reach their allotted Table A amount.

[6] "Under a separate deal made Wednesday with the Trump administration on rules governing Delta pumping, the State Water Project will relinquish an average of 100,000 acre-feet of water a year to customers of the federal Central Valley Project…" https://www.sacbee.com/latest-news/article223114775.html

[7] https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=36503

The DEIR/EIR should thoroughly address any changes in water allocation that result in water being diverted from the SWP. The lack of information and analysis regarding this possible water diversion make the DEIR incomplete.

On December 12, 2018, DWR and the Bureau of Reclamation ("BOR") reached an agreement to update the COA. Important changes include amending Article 6(c) of the COA to alter the storage withdrawal percentage from the parties. Under the original COA each party's responsibility for making storage withdrawals to meet Sacramento Valley in-basin use was fixed, with the United States percentage at 75% and California at 25%. The amended language *reduces* the United States percentage to 65% in Dry Years and 60% in Critical years. This alteration may lead to serious environmental impacts yet to be addressed in the present DEIR. This is understandable given the recency of the amendments, however, these amendments render the underlying water use assumptions that have been discussed regarding the present project inadequate.

Significantly concerning is that at times when water is most scarce, in Dry and Critically Dry years, the SWP may have to divert up to 15% more water outside of the SWP system. This will compound environmental issues during years when environmental impacts are the most severe due to water shortage. In addition, the water year classifications are based on Sacramento Valley 40-30-30 Index. However, the likelihood of prolonged drought and unpredictable weather patterns is only expected to increase due to continued changes in our climate.[8] Thus, the clear risk is that California will repeatedly fall into water year classifications of Dry and Critically Dry years. Alarmingly, these are the exact years that SWP will have to contribute *more* water to meet Sacramento Valley in-basin use.

Lastly, the recent COA amendments raise serious concerns regarding fundamental assumptions of the DEIR. Throughout the DEIR, DWR states that because the SWP would be operated consistent with Contract terms environmental impacts would be insignificantly changed. A specific example being Section 5.20.4.4, which states "Whether changes in reservoir water levels due to exchanges of carryover water result in higher or lower water levels in San Luis Reservoir, the SWP would continue to be operated consistent with regulatory processes and Contract terms…" However, the recent COA amendments show that the Contract terms can be changed quickly and with minimal public comment. The COA amendments show precisely the importance of avoiding a piecemeal review. The piecemeal review makes analysis circular, the DEIR stating the operations contracts will mitigate impacts, then amending the COA outside of the DEIR in a way that increases environmental impacts outside of DEIR review. This circular

3 (cont.)

[8] "The odds of California suffering droughts at the far end of the scale, like the current one that began in 2012, have roughly doubled over the past century" Justin Gillis, "*Hotter Planet Fuels Drought, Scientists Find*", New York Times, 2015, A1

review has direct impacts on the environment, shown through the temperature-dependent egg mortality of Sacramento Winter Run Chinook.[9]

As the DEIR does not currently address environmental issues raised by the COA amendments, all Environmental Impacts have not been identified. A full analysis, along with data showing what impacts the COA amendments will have on the current project, is needed to provide the public with a clear understanding of the environmental impacts of the current project.

3 (cont.)

III. DWR omitted data necessary to complete the analysis of the DEIR

Apart from the failure to include the WaterFix and Contract Extension in the scope of the project, the DEIR omission of necessary data and analysis renders the DEIR incomplete.

The DEIR lists the study area under the Environmental Analysis as the PWAs that receive water from the SWP. The DEIR proceeds to list the various service areas, 29 in total. The DEIR states that out of the 29 PWAs, 3 had been contacted but DWR had not scheduled an interview and 2 opted not to participate. The failure to include information from 17% of the areas that would be directly affected by the proposed amendments in the Environmental Analysis is concerning. This lack of information could be remedied easily by conducting the interviews with the PWAs and including any impacts in a DEIR/EIR. The failure to include all areas that would be directly affected by the project raises the question of whether the DEIR was submitted in haste prior to being properly completed. All involved agencies should be included, with input provided, in the DEIR environmental analysis.

4

The DEIR states "Because the precise location, amount and timing of future water transfers and exchanges are not known at this time, this visual analysis is programmatic, focusing on the types of reasonably foreseeable changes in the physical environment that may occur due to implementation of the proposed amendments." However, in *Laurel Heights*, the California Supreme Court held "The fact that precision may not be possible ... does not mean that no analysis is required. Drafting an EIR ... involves some degree of forecasting." (*Laurel Heights Improvement Assn. v. Regents of University of California*, (1988) 47 Cal.3d 376, 399.) The Court made clear "while foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can." (*Id*.) DWR has vast amounts of historical water usage data as shown throughout both the DEIR and the DEIR appendixes. This water usage data includes historical water totals used by each PWA. While exact future estimates may be impossible to determine, forecasting estimates for a maximum, intermediate, and minimal future use under the proposed project would seem entirely possible. The forecasted water movement in each PWA as a result of the project could then be compared to forecasted water movement under the current contracts. This comparison would be invaluable in providing

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[9] https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=36503

the public with the ability to make an informed decision on the environmental impacts of the project. The failure to provide any forecasting of changes in water movement by PWAs under the proposed project in the environmental analysis makes the environmental impacts and mitigation analysis incomplete.

6 (cont.)

IV. The DEIR's analysis of the environmental impact of Water Transfers and Water Exchanges on the environment is incomplete

Water is a public good. While it can be bought and sold, the benefits and impacts of transferring water differ from the transfer of traditional commodities. Entire ecosystems do not thrive around ounces of gold, communities do not drink oil for basic survival, endangered species do not live in bushels of wheat. The DEIR suggests throughout chapter five that the impacts related to water transfers and water exchanges is minimal because SWP water supply would continue to be delivered to the PWAs consistent with current Table A amounts. The DEIR relies on this assertion to avoid doing analysis on the impact increased transfers and exchanges would have on the environment. This failure runs contrary to accepted science. It is well accepted that flow routings have large impacts on ecosystem functions.[10] Altering flow variability changes the characteristics of a river system.[11] The proposed project will undoubtedly change the flow variability on *all* river systems both within and outside the PWAs jurisdiction. This flow variability will increase due to the proposed project taking water from watersheds across the SWP system. This taking of water includes water from north of the Delta. The taking of water from PWAs north of the Delta leads to a compounding of impacts as drainages downstream of the point of diversion will directly suffer due to the lower flow from the upstream taking. This taking of water from all points of diversion in the SWP system directly results in the flow variability that has grave environmental impacts. While the DEIR uses language of increased water transfers and exchanges, this language translates to a *taking* of water and a *change* in water flow through the points of diversion in the SWP system. Despite this, the DEIR fails to provide data and analyze the severe environmental impacts that will result from the increased taking of water and changes in points of diversion in the SWP from this project.

7

The Agreement in Principal ("AIP") states in section 1.1.1 "The PWAs shall determine duration and compensation for all transfers." As the AIP includes the proposed contract amendments, this language is a proposed amendment to the current SWP contracts. This proposed language makes clear why the DEIR states in Chapter 5.1.1.3 the proposed project could increase the *frequency*, *duration*, and *timing* of water transfers and exchanges. River system are not impacted only by the amount of water that flows through the drainage in any given year. River systems are also

[10] "Flow routings have potentially large impacts on ecosystem functions, such as primary and secondary production in pelagic food webs that sustain native fish.." *San Francisco Estuary and Watershed Science*, Vol. 5, iss. 3 [July 2007] pg. 13

[11] "Flow variability is an important characteristic of river systems, with implications for river geomorphology, ecology, and human uses" *Catchment Dynamics and River Processes: Mediterranean and Other Climate Regions*, (2005) G. Mathias Kondolf and Ramon J. Batalla.

impacted by the total flows in previous and subsequent years and *when* the water flows through a river system.

Despite this, the DEIR does not include any analysis on what impact greater water flow variability caused by increased transfers and exchanges would have on Aesthetics, Agricultural and Forest Resources, Biological Resources, Geology, Ground Hydrology and Water Quality, Hazards and Hazardous Materials, Land Use and Planning, Public Services and Recreation, Surface Water Hydrology and Water Quality, and Water Supply. The impact is magnified by the fact that the increased exchanges under the proposed project state a PWA may not be returned water for up to *ten years*. Thus, water is being exchanged and transferred more frequently with the potential for greater durations for water return to a given water system. Common sense would indicate that water transfers would be higher when it is scarcer in certain areas, thus transferring water from PWA 1 that has a perceived surplus to a PWA 2 that has a perceived shortage. Once the transfer happens the water is not returned instantaneously, it is used. PWA 2 may commit to a return of different water at a different date. The assumption is that PWA 2 will have the water to return at a future date, and that PWA 1 will not need water because a subsequent dry year prior to the return date. Thus water is being traded at a greater rate and being consumed for a future assurance new water will be returned to complete the transaction. This system invariably creates greater stresses on the river systems of the state, drawing down water affecting the flow routing and flow variability. The Environmental Analysis fails to address this impact, the rationale being that any impact is negligible because the total water allocated will net at year end.

7 (cont.)

The failure to address the impact of the increased taking of water from watersheds across the SWP, along with the project changing flow rates below the points of diversion, renders the DEIR incomplete. Due to the incomplete DEIR, a new DEIR should be recirculated addressing these impacts.

V. <u>The Environmental Analysis fails to fully address the impacts associated with increased transfers from existing stations, including those transfers north of the Delta</u>

The DEIR's failure to both quantify and address project impacts associated with increased transfers from existing conditions, including from north of the Delta, makes the Environmental Analysis incomplete.

In chapter 5.1.1.3, the DEIR states that "*most* water transfers would occur among the PWAs located south of the Delta and would not involve additional export of SWP water from the Delta. However, the proposed amendments would *not preclude* transfers among the north of the Delta PWAs or between north of Delta PWAs and south of the Delta PWAs." The DEIR further states "Some of the participating agricultural PWAs could satisfy a portion or all of their financial obligations for the cost of WaterFix by contracting with other PWAs to transfer a portion of their SWP water under the provisions of the proposed project. This could result in an increase in transfer from existing conditions."

8

The language used in the DEIR clearly demonstrates that the project would result in an increase in transfers, including transfers north of the Delta, thus further dewatering the Delta region. While the DEIR asserts *most* water transfers would occur among PWAs south of the Delta, it fails to quantify what *most* would entail. The difference between 49 percent of the water transfers occurring north of the Delta and 1 percent of water transfers occurring north of the Delta could be the difference of a species surviving or going extinct. The DEIR's failure to provide forecasting of increased transfers runs afoul of the requirements a lead agency use their best efforts to disclose all they reasonably can.[12] The lack of this key information leaves the public unable to properly analyze the environmental impacts of the project. This is particularly glaring in regards to transfers north of the Delta, which this project anticipates, as those transfers could have severe physical impacts on the environment. This is discussed thoroughly in section 2.2 of the July 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan:

> While natural conditions have not existed in the Bay-Delta watershed for more than a hundred years, many of the native fish and wildlife species that are now at the verge of extinction maintained healthy populations until the past several decades when water development intensified. While there are also other factors involved in the decline of these species, water diversions and the corresponding reduction in flows those diversion cause, are significant contributing factors. A significant and compelling amount of scientific information indicates that restoration of natural flow functions is needed now to halt and reverse these declines in an integrated fashion with physical habitat improvements.

The lack of data regarding increased transfers and the impacts resulting, including those from north of the Delta, leaves serious environmental impacts of the project unidentified.

8 (cont.)

VI. The DEIR lacks both data regarding environmental impacts and fails to identify and analyze all environmental impacts

a. Biological Resources

Under the Biological Resources section 5.5.4.3, the DEIR states "there would be no adverse effect on any fish wildlife corridors, aquatic and riparian habitat, other sensitive natural communities, or federally protected wetlands as defined by Section 404 of the CWA, and there would no conflict with HCP/NCCPs." This conclusion fails to provide data and identify the numerous impacts the proposed project would have on the physical environment.

9

[12] "Drafting an EIR or preparing a negative declaration necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can." 14 California Code of Regulations § 1544 (Guidelines).

As previously stated, the DEIR states "*most* water transfers would occur among the PWAs located south of the Delta and would not involve additional export of SWP water from the Delta. However, the proposed amendments would *not preclude* transfers among the north of the Delta PWAs or between north of Delta PWAs and south of the Delta PWAs." The DEIR further states "Some of the participating agricultural PWAs could satisfy a portion or all of their financial obligations for the cost of California WaterFix by contracting with other PWAs to transfer a portion of their SWP water under the provisions of the proposed project. This could result in an increase in transfer from existing conditions." Thus, the project would have direct physical impact of altering flows in natural stream beds, as well as the supply of water into the Delta. The current DEIR has a lack of data and reasonable forecasting to properly address the quantitative amount of water supply change associated with increased transfers, including those north of the Delta.

Despite the physical change in inter-annual water supply in river drainages across California created by this project, the DEIR states in 5.5.2 that the "impact would be less than significant." This assumption runs counter to established science regarding the health of riparian systems and the biological resources they support. Changes made to the natural flow regime of rivers and streams results in irreversible and often unanticipated negative effects. This is specifically true in cases where flow alteration occurs in a way that specifically disrupts the seasonality of flows. The impacts of altering flow regimes include loss of habitat, flooding, and riparian degradation.[13]

9 (cont.)

Based on the DEIR not providing data and identifying all Biological impacts associated with increased water transfers and exchanges the DEIR is incomplete.

The State Water Resources Control Board ("SWRCB") Scientific Basis Report in Support of New and Modified Requirements for Inflows from the Sacramento River and its Tributaries and Eastisde Tributaries to the Delta, Delta Outflows, Cold Water Habitat, and Interior Delta Flows ("SBR") states:

> Fish species have continued to experience precipitous declines since the last major [plan] update and implementation of the Bay-Delta Plan in 1995 that was intended to halt and reverse the aquatic species declines occurring at that time. In the early 2000s, scientists noted a steep and lasting decline in population abundance of several native estuarine fish species that has continued and worsened during the recent drought. Simultaneously, natural production of all runs of Central Valley salmon and steelhead remains near all-time low levels.

[13] "Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands is recognized as a major factor contributing to loss of biological diversity and ecological function in aquatic ecosystems, including floodplains." *Alteration to the natural flow regimes of rivers, streams, floodplains & wetlands – key threatening process listing* (2013) NSW Scientific Committee – final determination

Tim Stroshane gave testimony in 2017 regarding the Change in Point of Diversion for the WaterFix.[14] In the testimony, Mr. Stroshane described the perils the Delta currently faces regarding Biological Resources. While Mr. Stroshane's testimony related to the WaterFix project, the biological risks associated with the WaterFix also are associated with the current project. This is clear based on the amendments resulting directly changing the duration, frequency, and timing of water flows throughout the SWP. This includes transfers north of the Delta. Therefore, biological impacts related to increased water diversion north of the delta, and the altering of frequency, duration, and timing of water flows throughout the SWP system, cause direct biological impact on wide ranging biological resources.

Mr. Stroshane specifically addressed invasive clams *P. amerensis* and *C. fluminea*. The increase and/or decrease of water flows into and through the Delta can lead to changes in the production zones of these highly invasive species. The increase in clam production in turn can lead to a reduction of plankton abundance. Further, because the clams can bioaccumulate selenium, both food predator fish and birds would be at risk of elevated selenium exposure. Mr. Stroshane further states that flow reduction, increased residence time of water, increased water transfers, and degraded water quality will cause unreasonable adverse effects to the Giant Garter Snake habitat of the Delta.

9 (cont.)

Scientific studies are uniform in finding flow alterations and changes to river and stream flows, including the delicate and vibrant delta biological resource, can have drastic and permanent environmental impacts. The DEIR must provide data and analysis on the reasonably foreseeable impacts to the biological resources it will effect. The DEIR has currently failed to do so, despite the direct statements that water transfers and exchanges will increase in frequency, timing, and duration, including from those points of diversion north of the Delta.

b. Groundwater Hydrology and Water Quality

In addressing project impacts on Groundwater Hydrology and Water Quality, the DEIR states in section 5.10.4.4 that "Because the extent, location, and implementation timing of groundwater pumping associated with changes in transfers and exchanges implemented by the PWAs are not known, it is concluded that groundwater pumping in some areas of the study area would cause subsidence due to a net deficit in aquifer volume or lowering groundwater table and the impact would be potentially significant." Despite finding that the project could lead to the significant physical impact of lowering groundwater tables, the DEIR states the impact would be unavoidable.

10

The DEIR lacks data that would help determine the nature of the impact on Groundwater Hydrology and Water Quality. There is extensive data relating to groundwater supplies in California along with depletion levels.[15] Further depletion of groundwater resources can lead to

[14] https://www.restorethedelta.org/wp-content/uploads/RTD_12.pdf
[15] http://www.gis.water.ca.gov

severe impacts including deterioration of water quality and reduction of water in streams and lakes.[16] The proposed project increases the fluidity of transfers, resulting in increased frequency, timing, and duration of water transfers. The impact of increased transfers is magnified by the significant delay in water return between PWAs, up to ten years. The increase in the ability to exchange and transfer water, coupled with the financial incentive for PWAs to transfer water to other PWAs that have high water demand, leads to the natural consequence of a PWA with groundwater resources transferring large quantities of water outside their service area. A PWA with groundwater resources that transfers that water would then rely heavily on drawing from the groundwater resource to offset the water transferred for financial gain. The DEIR should provide data related to the groundwater supplies in each of the PWAs and compare the data with the forecasted demand of water for each PWA. This data and forecasting would help identify potential future drawdowns of groundwater supplies based on the proposed project. Providing this data and forecasting would help form possible mitigation measures.

10 (cont.)

The importance of addressing groundwater draw down also implicates physical impacts on biological resources. In *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Ranch Cordova*, the Supreme Court noted that "the Draft EIR contained no discussion of the impact the planned groundwater extraction at the Well Field would have on water flows and habitats in the Consumes river." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, (2007) 40 Cal.4th 412, 448.) The Supreme Court held that for the EIR to serve the goal of understanding the environmental impacts and consequences of a project, it "must present information in such a manner that the *foreseeable impacts* of pursuing the project can actually be understood and weighed, and the public be given an adequate opportunity to comment on the presentation before the decision to forward is made." (*Id*. at 449) Here, the acknowledged increased impact on groundwater Hydrology lacks data and impact analysis in relation to biological and riparian impact. Mitigation should include an analysis of adjusting water transfer amounts and duration periods depending on groundwater drawdowns.

c. Public Services and Recreation

In discussing Public Services and Recreation, section 5.15.4 finds there would be "no impacts related to public services, including recreation would occur and no mitigation measures are required." Section 5.15.2.1 states "the SWP is a multipurpose project that provides recreational benefits including sightseeing, fishing, hunting, picnicking, camping, boating, water skiing, bicycling, hiking, and swimming." In discussing the impacts and mitigation measures, the DEIR omits discussion on impacts to the above recreational activities.

11

[16] "Groundwater depletion is primarily caused by sustained groundwater pumping. Some of the negative effects of groundwater depletion: drying up of wells, reduction of water in streams and lakes, deterioration of water quality, increased pumping costs, and land subsidence." http://water.usgs.gov/edu/gwdepletion.html

While the DEIR states the project would not include any permanent change to the PWAs Annual Table A amounts, this ignores the serious physical impacts increased transfers and exchanges would have on recreational activities. Under 5.15.4.3 the DEIR states the project could "result in an increase in transfers from existing conditions." Increased water transfers from one PWA to a second PWA in a separate region could lead to changes in stream and river flows along with reservoir levels. This can have serious impacts on all forms of recreational activities. In addition, the project likely will result in increased transfers occurring from PWAs during dry months, when recreational use is high, to areas water will be consumed for agricultural and/or urban use. Impacts of increased transfers have direct physical impacts on numerous recreational activities. The closure of boat ramps during peak holiday season.[17] The reduction in water flows in streams and rivers impacting recreational boating.[18] The impact of altering the quantity and timing of stream flows on fisheries.[19] In 2017 testimony in the Hearing in the Matter of California Department of Water Resources and United States Bureau of Reclamation Request for a Change in Point of Diversion for California Waterfix, fisherman Roger Mammon stated:

> It is my belief based on my experience as an angler and hunter that the Delta is suffering from an ecological crisis which has been well documented for decades. As a sportsman I have watched the Delta die a slow death as its life giving blood, water, is removed from the ecosystem in astonishing amounts leaving the Delta ecosystem in a terrible mess. My experience and observations have spurred my concerns about this dying estuary, what is causing its demise, and how my legal use of water is being violated.

The DEIR acknowledges that transfers may increase due to the project from north of the Delta, yet serious impacts have gone unidentified. A lack of both data and analysis has been presented to show the impacts the project will have on recreational activities. Data must be presented regarding the identified physical impacts on recreational activities, and the impacts must be fully analyzed.

11 (cont.)

d. Surface Water Hydrology and Water Quality

In addressing Surface Water Hydrology, the DEIR states in section 5.16.4 that "no impacts to surface water hydrology and water quality in the study area would occur and no mitigation measures are required. Therefore, these impacts are not further evaluated." In reaching this

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[17] "PacifiCorp is advising those who use Copco and Iron Gate reservoirs for recreation to expect impacts from lower reservoir levels, including the closure of boat ramps over Memorial Day weekend." https://www.klamathfallsnews.org/news/lower-water-levels-will-impact-recreation-at-copco-and-iron-gate-reservoirs.

[18] Testimony finding the Department of Ecology's adopted flows are inadequate to support most types of recreational boating on the Spokane River. *Protecting the Spokane River summertime flows goes to court*, Western Environmental Law Center, https://westernlaw.org/protecting-spokane-river-summertime-flows-goes-to-court/

[19] "Alteration of the quantity and timing of river or stream flow can significantly affect fisheries resources. The American Fisheries Society (AFS) is alarmed at the loss of natural streams in North America, and greatly concerned with management of fisheries in streams that have been altered." *Effects of Altered Stream Flows on Fishery Resources*, AFS Policy Statement #9, American Fisheries Society.

conclusion, the DEIR relies on the statement that no housing or structures would be constructed as part of the proposed project. An EIR must "present information in such a manner that the foreseeable impacts of pursing the project can actually be understood and weighed." (*Id.*) Clearly, given the increased frequency, duration, and timing of water transfers, created by this project, water will be transferred between PWAs at a rate and speed that fundamentally alters the flow of water in California. These increased transfers create the reasonably foreseeable impact of a shift in the proportion of SWP water used for various uses. There is a lack of data in the DEIR to properly identify physical impacts to Surface Water Hydrology relating to the increase in water transfers and exchanges.

12 (cont.)

In addition, the DEIR fails to address the impacts of selenium associated with increased transfers, as discussed under hazards and hazardous materials. This is magnified by changes resulting from global warming resulting rising sea levels and prolonged drought.[20] The DEIR fails to provide data and analysis regarding project impacts related to surface water hydrology and quality.

13

e. Water Supply

In Section 5.20.3.1 the DEIR states "The COA (Coordinated Operation Agreement) is an agreement between reclamation and DWR that governs the coordinated operations of the CVP and SWP in the Sacramento River watershed and the Delta." Further, "the COA provides for equitable sharing of surplus water entering the Delta while jointly meeting obligations to protect beneficial uses."

On December 12, 2018 DWR and the Bureau of Reclamation ("BOR") reached an agreement to update the COA. Due to the updated COA, which may have impacts on the overall water supply in the SWP, the DEIR should address these changes in relation to the current proposed project.

14

Further, section ES.6 of the DEIR states "More frequent transfer and exchange of Table A and Article 21 water would increase the reliability of SWP supplies for M&I PWAs that could support additional population in jurisdictions within the M7I PWA service area." Thus the proposed contract could result in additional population in areas that would result in additional water consumption. This in turn would increase water demand, further taxing water supply. The DEIR does not provide data or analysis on the potential for the project to change water supply due to creating foreseeable changes in population areas.

15

f. Aesthetics

Under Aesthetics section 5.2.2 the DEIR states "visual or aesthetic resources are comprised of both the natural and built features of the landscape that contribute to the public's experience and

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[20] "As temperatures warm, the prevalence and duration of drought is expected to increase." https://www.ucsusa.org/global_warming/regional_information/ca-and-western-states.html#.XBqcqq2ZNBw

appreciation of the environment." In describing the SWP conveyance facilities, the DEIR states "conveyance facilities include the use of natural stream channels in Northern California (Sacramento River and Feather River) that deliver water to the Delta …" Under Table 5.2-1 of the DEIR the impact statement states "The fallowing of agricultural land or changes in cropping patterns associated with increased transfers and exchanges implemented by the PWAs could result in degradation of the visual character or adversely affect scenic vistas and scenic resources in the study area." The impact statement did not identify and therefore analyze impacts outside "fallowing of agricultural land or changes in cropping patterns."

16 (cont.)

Conveyance facilities include natural stream channels. An increase in transfers would therefore alter the frequency, timing, and amount of water flow through natural stream channels throughout the year. These stream channels provide natural features for scenic vistas, hiking, biking, fishing, and boating activities. Altering the amount of flow through water exchanges and water transfers creates a direct physical impact on the aesthetics of the effected regions. These impacts have not been identified and addressed in the current DEIR. Further, there is a lack of data presented to determine what impacts the proposed projects would have on these natural stream bed conveyance points. The EIR must address clear impacts to aesthetics beyond those of "fallowing of agricultural land or changes in cropping patterns."

g. Geology, Soils, and Mineral Resources

In addressing the impacts relating to Geology, Soils, and Mineral Resources, the DEIR in section 5.8.4.4 states "It is possible that transfers and exchanges of SWP water form agricultural to M&I PWAs could result in fallowing of agricultural lands and/or changes in cropping patterns in the study area which could lead to a reduction of vegetation cover resulting in an increase of soil erosion or loss of topsoil." In reaching this conclusion, the DEIR failed to identify and analyze all direct physical impacts the project will have on Geology and Soils.

17

The proposed project will further alter the water flows through each watershed in the PWA jurisdictions. This will happen due to increased fluidity of water transfers and exchanges, resulting in the increase in transfer amounts, frequency, and duration between all PWAs. This creates flow alterations, a direct physical impact, in any PWA for which transfers occur. Flow alteration in river channels can alter channel geometry of a given watershed.[21] Flow alteration also leads to riparian zone degradation which in turn leads to erosion impacting all aquatic communities. In addition, the changing of water flows from specific drainages can lead to severe long term consequences. This is shown through the long-term impacts of reducing flows from specific watersheds. An example of long term impacts is shown through the desiccation of the

[21] "Our findings suggest that diversion-induced flow alteration is altering channel geometry and riparian vegetation communities in the lower gradient stream segments of this semi-arid, mountainous region." *Downstream effects of stream flow diversion on channel characteristics and riparian vegetation in the Colorado Rocky Mountains*, USA. (2014) Simeon T. Caskey, Tyanna S. Blaschak, Ellen Wohl, Elizabeth Schnackenberg, David M. Merritt and Kathleen A. Dwire.

streamside forests in the Mono Basin due to water diversion of streams flowing into the basin. This led to thousands of tons of floodplain sediments flowing into the basin, and widespread erosion.[22] The DEIR fails to address these reasonably foreseeable impacts related to increased water transfers between PWAs.

17 (cont.)

h. Agricultural and Forest Resources

Under the Agricultural and Forest Resources section 5.3.4.1 the DEIR states "portions of the proposed amendments (amendments related to water transfers and water exchanges) may result in changes to the frequency, duration, and timing of Table A and/or Article 21 water moving among the PWAs that could adversely affect agriculture and forestry resources in the study area." Again, the DEIR lists in the impact statement as the sole impact conclusion "The fallowing of agricultural land or changes in cropping patterns … could result in the conversion of agricultural land to non-agricultural uses." This ignores the clear physical impact changing the frequency, timing, and amount of water flowing through natural stream channels would have on the Forest and Agricultural resources. Forest health is a particular concern given the devastating fires the state has experienced. Dry, combustible fuels, along with other factors, pose serious threats to serious future wildfires.[23] Healthy forests are not only a crucial element in the slowing of wildfires, they provide numerous other benefits ranging from cleaning our air to providing wildlife habitat.[24] The reduction and altering of flow patterns in specific watershed can lead to lasting and long term consequences. The DEIR lacks sufficient data on this issue, and has failed to identify the physical impacts that increased water exchanges would have on flows throughout the watersheds of California.

18

i. Hazards and Hazardous Materials

The DEIR concludes in 5.11.6 that "no impacts related to hazards or hazardous materials would occur and no mitigation measures are required." It is clear given the DEIR that should the proposed project be implemented, flows in streams across the SWP region would be altered. The DEIR acknowledges that this includes flows being transferred north of the Delta. These flow alterations, including reductions in flows in particular drainages, can lead to severe environmental impacts with regard to hazards and hazardous materials.

19

[22] http://www.monolake.org/mlc/diversions

[23] "Changes in climate have and will continue to alter certain properties of the fire environment including increasing fuel aridity and fewer days with precipitation thereby increasing the frequency of certain ingredients for such fires." *The 2017 North Bay and Southern California Fires: A Case Study* (2018) Nicholas J. Nauslar, John T. Abatzoglou, and Patrick T. March

[24] "Roughly one-third of California is forested, including the majority of the watersheds that serve as the key originating water source for millions of people across the state. These forests also provide critical air, wildlife, climate, and recreational benefits." *Improving California's Forest and Watershed Management* (2018) The California Legislature's Nonpartisan Fiscal and Policy Advisor

In 2017 Tim Stroshane gave testimony in the Hearing in the Matter of California Department of Water Resources and United States Bureau of Reclamation Request for a Change in Point of Diversion for the WaterFix stating "operation of Petition Facilities would alter flows and degrade water quality resulting in unreasonable selenium contamination of beneficial uses estuarine habitat (EST), rare, threatened, or endangered species (RARE), wildlife habitat (WILD), commercial and sport fishing (COMM), and water contact recreation (REC-1)." Mr. Stroshane went on to state:

> Generally, SWRCB acknowledges that water quality of the San Joaquin River ("SJR") has decreased markedly in recent decades and has generally coincided with SJR flow reductions, population growth, and expanded agricultural production. There are numerous water quality constituents in the SJR basin which can negatively impact fish and wildlife beneficial uses including: dissolved oxygen, salinity and boron, nutrients, trace metals, and pesticides.

19 (cont.)

While the DEIR acknowledges the project would alter water flow in drainages across the SWP, it fails to fully analyze how altering the flows would impact the significant impacts regarding hazards discussed by Mr. Stroshane. These hazards include selenium, boron, trace metals, dissolved oxygen, and pesticides. A full analysis on the proposed project is vastly important given expected sea level rise, and saltwater contamination of the State's delta.[25] Given the threats of climate change, potential hazardous impacts resulting from the proposed project will likely be magnified by prolonged droughts and rising sea levels. The DEIR fails to identify and discuss the significant environmental impacts regarding hazards and hazardous materials increased water transfers and exchanges will have as a result of river and stream flow alterations, including those north of the Delta.

j. Land Use and Planning

In Section 5.12-1 The DEIR states the fallowing of agricultural land or changes in cropping patterns as an impact of the proposed project, finding that the impacts would be less than significant.

Under Section 1.1 of the AIP, the proposed contract language states "PWAs shall determine duration and compensation of all transfers." Each of the PWAs use water in vastly different ways, as shown in the DEIR. Clearly, as the project provides different payment allocation, duration, timing, and frequency of transfers between the PWAs, the water will be used for purposes differing from those under the current water contracts. Thus, the proposed project will alter the current structure of water use between PWAs in any given year. This fundamental shift

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[25] "As sea levels rise, saltwater contamination of the State's Delta and levee systems will increase. Saltwater contamination of the Sacramento/San Joaquin Delta will threaten wildlife and the source of drinking water for 20 million Californians. Farmland in low areas may also be harmed by salt-contaminated water." https://oag.ca.gov/environment/impact

will change the areas where water is being used and the uses that water is being applied to. This likely will have a direct effect on land use and planning. Despite this, the DEIR provides a lack of data and fails to identify issues that relate to the environmental impacts associated with a shift in Land Use and Planning tied to the current project.

20 (cont.)

k. The DEIR does not identify crucial issues regarding cumulative impacts and lacks data to adequately analyze the cumulative impacts resulting from the project.

CEQA Guidelines section 15355 states cumulative impacts "refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." In other words, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." (CEQA Guidelines, § 15310, subd. (a)(1).) The primary purpose of a Cumulative impact analysis is that it "assesses cumulative damage as a whole greater than the sum of its parts." (*Environmental Protection Information Center v. Johnson* (1985) 170 Cal.App.3d 604, 625.)

Here, under the project's Cumulative Impact Analysis section 6.1.3, the DEIR omits analysis of cumulative impacts relating to: hazards and hazardous materials, noise, population, employment and housing, public services and recreation, surface water hydrology and water quality, transportation, and utilities and service systems. The DEIR states the proposed project, relating to these areas, "would not result in physical environmental impacts." One fundamental error in this assertion is the failure to include both the WaterFix and Contract Extension projects in the Environmental Analysis, thus rendering the project analysis incomplete. The Court in *Banning Ranch Conservancy v. City of Newport Beach* stated "It is well established that CEQA forbids 'Piecemeal' review of the significant environmental impacts of a project." (*Banning Ranch Conservancy v. City of Newport Beach*, 211 Cal.App.4th 1209, 1222.) The improper description of the scope of the proposed project goes to the heart of the danger of doing CEQA analysis in a piecemeal fashion. Improperly cutting a project into pieces, analyzing each impact solely to each piece of the proposed project, then circling back to the cumulative impact analysis and failing to analyze impacts because they were found to have no physical impact on the environment.

21

The cumulative impact between projects can be shown in a hypothetical situation. Hypothetically, a copper miner upgrades their mine equipment to increase their yield. Unfortunately for the miner, the increased yield is stored at their mine because they have a single truck that can take the copper from the mine. The truck can only distribute to the market the amount of copper that is generated at the mine by the old equipment. The increased yield is therefore stored in the mine, and the supply they deliver equals that prior to the upgrade. However, the miner then obtains additional trucks to drive the increased supply to the market. The supply then increases, and the incentive for the miner to produce more copper increases. Here, the upgraded mine equipment is the WaterFix, the increased truck supply is the project.

Both the Waterfix and the project have a synergy that increases the perceived value to both projects. Now, suppose the additional trucks were leased for five years. The increased ability to get the copper to market would be limited to five years. However, the miner then decides instead of leasing trucks for five years, the miner will lease trucks for 30 years. Now, the miner will (1) generate more copper, (2) be able to supply the copper to the market, and (3) will have the ability to do so for 30 years. The increase in the time horizon of getting the supply to the market by extending the lease of the trucks is the Contract Extension project. Each piece of the mine upgrade has both value and impacts directly tied to the individual upgrades, and without the additional upgrades, the value and impact for the individual upgrade minimized.

The hypothetical above illustrates why each piece cannot be analyzed independently. Without the increased supply in trucks, the miner would not perform the mine upgrades because the increase in copper would be worthless. Without the mine upgrades, the miner would not lease trucks for five years because he would not have the supply to warrant it. Lastly without a guarantee of a 30-year lease on the trucks, the miner would both not get trucks and not do the mine upgrades because they would not have the time horizon on getting supply to the market to make the upgrades economically viable.

Here, the proposal to increase water transfers would allow the increased supply created by the WaterFix to be transferred and exchanged at an increased rate. This would be then guaranteed over a long-term time horizon due to the contract extension project. This in turn would lead to greater flows of water being moved from PWAs, leading to greater amounts of water being diverted from watersheds and moving to differing uses. This impact would also occur over longer term due to the contract extension. Thus, the projects in *conjunction* would increase impacts over a longer time horizon. The failure of the DEIR to address the cumulative impacts of the project in conjunction with the WaterFix and Contract Extension creates an inability for the public and public agencies to seriously analyze the environmental impacts of the project.

Further, the failure in the Environmental Analysis to address the clear and foreseeable physical impacts of the increased water transfers and exchanges, including *frequency*, *timing*, and *duration*, makes all sections of the Environmental Analysis incomplete. As discussed in length above, the proposed projects will alter water flows throughout river drainages both within and outside the PWAs in the SWP. Changing flow patterns, reservoir heights, water quality, water temperature, including altering flows north of the Delta, can have severe and longlisting environmental impacts. As data was not presented regarding these potential environmental impacts, analysis was not completed in the DEIR regarding identifiable impacts. Because multiple sections of the DEIR Environmental Impact section conclude there were no environmental impacts and/or less than significant impacts, entire sections were therefore not analyzed under the cumulative impacts. The cumulative analysis is incomplete until all environmental impacts are properly addressed in the DEIR/EIR.

21 (cont.)

An example of this issue is the DEIR's failure to present data and complete the analysis of environmental impacts on Groundwater Supplies, as discussed in our comments under the Environmental Analysis. The proposed project would increase the fluidity of transfers, resulting in an increase in frequency, duration, and timing of transfers. Because the project gives authority to the PWA's to determine both compensation and duration of transfers, some PWAs may increase their sales of Table A water allocated through the contract. PWAs that have larger groundwater supplies may sell more Table A water and offset the water sold through their groundwater supplies. This sale will in turn lead the PWA, or individual water users in the PWA region, to draw down the groundwater resource. The increased groundwater reliance can have wide-ranging impacts, including forest health, impacts to biological resources, and water quality. Yet, due to the DEIR not identifying foreseeable environmental impacts associated with Groundwater Supplies, the issue was not addressed in the cumulative analysis.

21 (cont.)

In sum, the failure of the Cumulative impact analysis is twofold: (1) The DEIR fails to include the cumulative impacts of the current project in conjunction with both the WaterFix and Contract Extension projects, and (2) fails to fully analyze the cumulative environmental impacts in all areas with data and analysis regarding the impacts of increased transfers and exchanges in all drainages in the SWP.

VIII. The DEIR fails to address and analyze project alternatives

The lack of analysis done by DWR regarding the beneficial impacts of water reduction in the alternatives analysis is glaring. This specific issue was discussed at length in *Pacific Coast Federation of Fishermen's Associations v. Department of the Interior* (2016) 655 Fed.Appx. 595 ("*PCFFA v. Department of the Interior*"). In discussing the "no action" alternative, the Court held "Reclamation's decision not to give full and meaningful consideration to the alternative of a reduction in maximum interim contract water quantities was an abuse of discretion, and the agency did not adequately explain why it eliminated this alternative from detailed study." (*Id*. at 599). Instructively, the Court further stated that "The PEIS did not, however, address site-specific impacts of individual contracts." (*Id*). Here, the DEIR fails in the "no action" alternative and the "reduction in Table A" alternative to consider the full benefits a reduction in water allocations would have on the environment. This is particularly concerning due to the severe impacts the project poses to California's biological resources, ecology, water supply, water quality, and groundwater resources. The proposed project creates these impacts throughout the watersheds of California, including the Delta. Compounding these impacts is the proposed Contract Extension project, which will extend the current project amendments through the year 2085. Given the increasing scientific studies regarding climate change, coupled with the severe environmental impacts and stresses California watersheds are currently facing, the failure of the DEIR to provide data as to the benefits of water reduction as an alternative renders analysis of alternatives impossible. The Court in *PCFFA v. Department of the Interior* found the environmental assessment ("EA") inadequate based on interim renewals of two-year contracts,

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here, the contract period will last decades. (*Id.*) Given DWR's failure to provide data, analysis, and give proper weight to the benefits of water reduction, the DEIR must be recirculated and address these shortcomings.

22 (cont.)

In discussing Alternative One, under Section 7.4.1.1 the DEIR states "development of new or modification of existing surface or groundwater supply facilities would result in new potentially significant impacts when compared to the proposed project because the proposed project assumes that PWAs would not build and operate new facilities or modify existing facilities." However, if the scope of the project included the WaterFix, which it should, then it would include the building and operation of new facilities. Further, in discussing Alternative One Section 7.4.1 states "DWR is in the process of extending the Contracts' expiration date to 2085 which will allow DWR to sell bonds with 30-year terms or longer.." Given the clear overlap in the three projects, Contract Amendments, Contract Extension, and WaterFix the discussion of Alternative One should include impacts and analysis of all projects, rather than analyze the impacts of the projects in a piecemeal fashion. Lastly, in analyzing the impact, it is unclear what assurance the DEIR is assuming the project would prevent PWAs from building and operating new surface and/or groundwater facilities. Unless the proposed project *restricts* the building of new facilities or modification of existing facilities, the DEIR must not use the building of new facilities in weighing the overall impacts of the proposed project to the alternatives.

23

The DEIR fails to address the impacts of retired farmland in their analyses of water reduction relating to project alternatives. Throughout the DEIR, DWR argues that impacts would be minimal due to Table A water amounts not being increased by the project. However, Table A water amounts rely, in part, on the historical water uses of each PWA. Despite this, DWR provides insufficient data and analysis regarded land retirement resulting from farm land becoming toxic from salt and minerals. Due to decades of irrigation and urban development, the lands and wildlife of California are under severe threat. Studies have shown that the sensible solution is to retire hundreds of thousands of acres of farmland.[26] Land retirement has already begun to transpire and the benefits of land retirement in water reduction is clear. The Land Retirement Final Report, from the DWR website states "The SJVDP estimated abandonment of up to 460,00 acres of land due to drainage problems including soil degradation by salinization by the year 2040."[27] The retirement of thousands of acres of farmland due to contamination would conserve vast amounts of water. Further, due to continued soil degradation from toxins, including selenium, this land retirement will likely only *increase* into the future. Despite this, the DEIR fails to provide data and address how land retirement impacts the Table A water amounts for each PWA. The lack of this information is of greater concern given the length of the Contract

[26] "Decades of irrigation have leached salts and toxic minerals from the soil that have nowhere to go, threating crops and wildlife … studies long ago concluded the only sensible solution is to retire hundreds of thousands of acres of farmland." https://www.houstonchronicle.com/science/article/California-drought-Central-Valley-farmland-on-5342892.php

[27]https://water.ca.gov/LegacyFiles/pubs/groundwater/land_retirement_final_report__san_joaquin_valley_drainage_implementation_program/05-landretirement.pdf

Extension, extending the proposed project decades into the future. The significant reduction in Table A amounts carries, as stated in the previous paragraph, significant environmental benefits. Water reduction would enable more water to flow through the watersheds of California and into the Delta. The combination of the DEIR failing to identify that reduction in Table A amounts would lead to less adverse impacts to water users due to land retirement, while conversely having significant environmental benefits resulting from increasing watershed and Delta flows, makes the DEIR incomplete.

23 (cont.)

In further addressing possible alternatives, we would ask that two additional alternatives be analyzed.

a. Alternative A

Under Alternative A, DWR and the PWAs would agree to amend the Contracts. The amendments would remain the same as the water transfers and exchanges. However, the amendments related to cost allocation of the WaterFix would be removed. This alternative gives the PWAs the project's stated flexibility in water transfers and exchanges upon completion of the project. The removal of the WaterFix language is supported by section 1.1 of the DEIR stating "the proposed project related to water management actions would need to occur regardless of the outcome of the California WaterFix." Therefore, the primary goal relating to water management actions would occur upon completion of the proposed project. Because the proposed project is, as stated in the DEIR, a separate and independent project from the WaterFix, the amendments relating to cost allocation are unnecessary. If the WaterFix were to be completed, the cost of the project would be known at the time of completion. At that time, the SWP could allocate costs of the project based on PWA use in a way that would be equitable to each PWA. Alternative A relies on the statements in the DEIR that the WaterFix remains a separate and independent project in proposing this Alternative.

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b. Alternative B

Under Alternative B, Table A amounts would be adjusted. These adjustments would be based on the water year classifications discussed in the COA amended agreement Article 6(c) and the Sacramento Valley 40-30-30 Index. These categories would be Wet Years, Above Normal Years, Below Normal Years, Dry Years, Critical Years. The maximum Table A amounts would fall on Wet Years and decrease to the lowest Table A amounts falling on Critical Years. This would address some of the concerns addressed in section 7.4.2 of the DEIR. Specifically addressing Figures 7-1 and 7-2, the reduction of Table A amounts depending on the category the water year fell under would lower the relative delivery amounts regardless of water year. Further, this reduction would be realized and not simply be recovered through Article 21 water. As shown in both Figures, Article 21 water is primarily used in average to wet years. Thus, a reduction in Table A amounts by water year classification would reduce delivery amounts depending on water year likely not be offset by Article 21 water in dry to average years. In discussing

Alternative B, DWR must address the environmental benefits resulting from water reduction, in turn leading to increased watershed and Delta flows. In addition, DWR must address the reduced negative impacts to water users from the Table A reduction due to land retirements.

24 (cont.)

Lastly, the suggestion that water reduction from the SWP to PWAs would create negative impacts due to potential increased ground water pumping, along with potential construction of new supply facilities is not supported by data in the DEIR. *First*, as discussed throughout the comment letter, the proposed project raises serious environmental concerns. One of those concerns is the increased pumping of groundwater due to this very project. The increase pumping resulting in increased transfers and exchanges between PWAs, resulting in PWAs with groundwater resources selling their water and relying on groundwater to make up the difference. Thus, this very project raises serious questions regarding the environmental impacts of the groundwater resources. *Second*, to choose not to lower Table A water based on the possibility that it may result in increased groundwater draw ignores that fact that conserving each facet of our state's water resources can have a positive impact on our environment. The proposed project changes flow patterns in rivers and streams, reservoir levels, and water flowing into the Delta, all of which may be mitigated by reducing Table A amounts by water year. *Third*, the data does not support the conclusory statement that decreasing Table A amounts would therefore lead to construction of water supply facilities. The proposed project does not preclude additional construction of water supply facilities, thus, additional projects may be built whether the project does, or does not come to pass. A PWA that chooses to construct a new water supply project must go through the required permitting and environmental analysis prior to construction. Therefore, a PWA may just as likely, due to lowered Table A amounts, choose to conserve their water resource rather than construct new facilities.

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The DEIR should fully discuss the Alternatives and provide data that supports their conclusions that some Alternatives would lead to additional construction and groundwater draw. The DEIR must give proper weight to both water reduction and land retirements. The failure to properly address the proposed alternatives requires the DEIR to be recirculated, providing data and analysis for the public to make an informed decision on the proposed project.

IX. Climate Change and Resiliency

In analyzing Climate Change and Resiliency, the DEIR cites *California Building Industry Assn. v. Bay Area Air Quality Management District* ("*California Building Industry*"), stating in Section 8.1 that "It should be noted that in 2015, the California Supreme Court held that CEQA does not have to consider the effect of the environment (including climate change) on the project." However, the Court in *California Building Industry* held "when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency *must* analyze the potential impact of such hazards on future residents or users." (*California Building Industry Assn. v. Bay Area Air Quality Management District* ((2015) 62 Cal.4th 369, 377.) Here, the project not only exacerbates the environmental hazards associated with climate change as

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they currently exist, it will continue to do so as those impacts increase into the future. The DEIR acknowledges addressing future changes in climate being likely to exacerbate proposed project impacts is necessary, Section 8.1 states:

> Question 2: How will the proposed amendments be affected by climate change? Are future changes in climate *likely to exacerbate proposed projects impacts*?

Despite acknowledging a need to address this important issue, the DEIR fails to do so.

Vast amounts of scientific research clearly show that climate change will fundamentally alter the environment we live in. Particularly, California will feel the effects of climate change dramatically. Section 8.2.2.1 states "Global surface temperatures for 2016 were the warmest since record keeping began, in 1880, with most of the warming occurring in the past 35 years." Regarding California, Section 8.2.3.1 states "Rising temperature has already begun to reduce the total snowpack with melting occurring earlier in the year, further shifting stream- and river-flow regimes throughout the Sierra." Additionally, "Sea-level rise threatens coastal lands and infrastructure, increases flooding at the mouths of rivers, places additional stresses on levees in the Delta, and will intensify the difficulty of maintaining the state's water supply system in the Delta."

The severe impacts associated with climate change directly effect, and are exacerbated by, the current project.

Climate models show a tendency for the northern part of the state to become wetter, and the very southern portion of California to become drier.[28] The proposed project changes allocations in duration, frequency, and timing between PWAs across the state. The long-term environmental impacts of increasing the ease of transfers, and the uses the water is allocated to, need be addressed given the future precipitation anticipated across the state. The importance of this analysis is magnified due to the Contract Extension project, which would make impacts reach far into the future, when climate change impacts have continued to increase.

In California's Fourth Climate Change Assessment ("*Assessment*"), the report states "Changes in the timing of the seasons could also disrupt the timing of critical life cycle events (i.e., phenology). Climate change will also facilitate the spread of invasive species, pests, pathogens, and diseases that affect ecosystems and species." This will only be exacerbated by increased water transfers and exchanges, which will further change the frequency and timing of flows throughout rivers and streams across California. These exacerbated impacts should be fully analyzed in the DEIR.

26 (cont.)

[28] http://www.climateassessment.ca.gov/state/docs/20180827-StatewideSummary.pdf

In addressing forest health, the *Assessment* states "Regardless, it is certain that chronic temperature stress, episodic extreme droughts, pest and pathogen outbreaks, and wildfires will interact as compound disturbances that amplify effects and facilitate major ecosystem transitions in California." Data and Analysis is needed in the DEIR as to how altering current river and stream flows, as well as reservoir levels due to the proposed project would be exacerbated by the effect climate change will have on California forests.

The *Assessment* states threats to groundwater include elevated water tables due to sea level rise resulting in groundwater flooding. The potential for the project to exacerbate this condition due to increased drawing down of groundwater by PWAs, which may increase sale of surface water rights under the proposed project, needs to be addressed and analyzed in the DEIR.

26 (cont.)

Climate change will drastically effect all aspects of the environment of California. The above concerns are some of the many ways in which the proposed project's environmental impacts will be exacerbated by climate change projections. Given the vast scientific data available regarding climate change, the DEIR needs to address how climate change will exacerbate impacts associated with the project. Without a full analysis, the public and public agencies will not be able to perform a fair and balanced determination of the project.

X. <u>New Federal policy regarding maximizing water exports should be addressed in the DEIR</u>

On August 17, 2018, Interior Secretary Ryan Zinke sent a memo (copy attached) to his staff with the subject "California Water Infrastructure" that states:

> Within 15 days, the Assistant Secretary – Water and Science, the Assistant Secretary for Fish and Wildlife and Parks, and the Solicitor shall jointly develop and provide to the Office of the Deputy Secretary an initial plan of action that must contain options for:
>
> - Maximizing water supply deliveries; …

27

The same Memorandum from the Secretary of the Interior also directed Assistant Secretaries and the Solicitor to develop a plan of action for, among other things,

- *Resolving issues with the State of California regarding* the Coordinated Operations Agreement, the *California WaterFix,* and the potential enhancement of Shasta Dam;
- Preparing legislative and litigation measures that may be taken to maximize water *supply deliveries* to people; (Emphasis added.)

In addition, on October 19, 2018, the President issued the *Presidential Memorandum on Promoting the Reliable Supply and Delivery of Water in the West*. (Copy attached.) The Presidential Memorandum in Section 2(a)(ii) orders the Secretary of the Interior and the Secretary of Commerce to within 30 days designate one official to,

> Identify regulations and procedures that potentially burden the [California water infrastructure] project and develop a proposed plan, for consideration by Secretaries, to appropriately suspend, revise, or rescind any regulations or procedures that unduly burden the project beyond the degree necessary to protect the public interest or otherwise comply with the law. For purposes of this memorandum, "burden" means to unnecessarily obstruct, delay, curtail, impede, or otherwise impose significant costs on … water resources and infrastructure.

The language in the listed memorandums is unequivocal. The federal government has the clear and present objective of maximizing water deliveries in California. Specifically, the federal government is invested in using the California WaterFix as a fundamental tool for maximizing these water deliveries. This clear statement of intent directly relates to the current project. This is shown through the recent amendments to the COA, as described in section 2 of this comment letter. The COA amendments, which occurred outside of CEQA review, diverts water from the SWP to the federal Central Valley Project. This diversion results in a taking of water from the SWP, diverting the water to the Central Valley Project. The DEIR of the proposed project relies on specific water amounts allocated to the PWAs in the SWP. These specific allocations are under "Table A." The diversion of water from the SWP to the Central Valley Project, as described in section 2, equates to a lowering of "Table A" water allocations. Because the COA amendments occurred outside of CEQA review, the DEIR's reliance on unchanged "Table A" allocations in determining environmental impacts are minimal is untenable. This is so due to the likely continued diversion of greater amounts of water to the Central Valley Project through COA amendments. This result is reasonably foreseeable given the language in the federal memorandums, and the clear intention to maximize water supply.

The failure of the DEIR to analyze the environmental impacts associated with the new federal policy to maximize water exports renders the DEIR incomplete. A recirculated DEIR should analyze the reasonably foreseeable environmental impacts the new federal policy will have on the proposed project.

27 (cont.)

Finally, we incorporate by reference the excellent comments in, and the attachments to, the Restore the Delta comment letter separately transmitted to you earlier this morning.

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XI. Conclusion

At times, water in California surrounds us; whether it be in the snow drifts of desolation wilderness, rain pouring down during a Sierra Nevada thunderstorm, the spring run-off in the Sacramento river, or the deep aquifers of the Central Valley. However, our understanding about water and the environment around us, climate change, population, and agriculture, continue to

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evolve. The lens we view our relationship with water through is shifting dramatically, and will continue to shift as the water around us becomes scarcer. We must invest the research, time, and thought to better manage the most important resource we have. We must understand what impacts the further commoditization of water will have on issues ranging from the quality of water a child drinks from their kitchen faucet, to the water flow salmon rely on to reach their spawning grounds. The proposed project will fundamentally alter the flow of water throughout California. The DEIR leaves basic questions as to how the contract amendments will impact the environment around us unanswered. The piecemeal scope of the project, the lack of data as to both direct and foreseeable environmental impacts of the project, and a full analysis of possible alternatives makes any understanding by the public of the project's environmental impacts by impossible. Due to the DEIR being fundamentally and basically inadequate and conclusory in nature, any meaningfully public review and comment regarding the proposed project has been precluded. As such, a new DEIR must be recirculated to provide the public with the data and analysis needed to make an informed decision regarding the environmental impacts of the proposed project. Without a recirculated DEIR, the public will be prevented from understanding the environmental impacts associated with changes to California's most important resource, water.

29 (cont.)

Sincerely,

Charles Center, Legal Counsel
Friends of the River

Bill Jennings, Executive Director
California Sportfishing Protection Alliance

Barbara Barrigan-Parrilla, Executive Director
Restore the Delta

Conner Everts, Facilitator
Environmental Water Caucus

Carolee Krieger, Executive Director
California Water Impact Network

Jeff Miller, Conservation Advocate
Center for Biological Diversity

Barbara Vlamis, Executive Director
AquAlliance

Kathryn Phillips, Director
Sierra Club California

Colin Bailey, Executive Director
Environmental Justice Coalition for Water

Jonas Minton, Senior Water Policy Advisor
Planning and Conservation League

Adam Keats, Attorney
Center for Food Safety

Attachments:

August 17, 2018, Memorandum from Secretary of the Interior to his Staff re California Water Infrastructure, cited in this letter at p. 26

October 19, 2018, Presidential Memorandum on Promoting the Reliable Supply and Delivery of Water in the West, cited in this letter at p. 26

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NATURAL RESOURCES DEFENSE COUNCIL

January 9, 2019

Cassandra Enos-Nobriga
Executive Advisor, State Water Project
Department of Water Resources
1416 Ninth Street, Room 1148-3
Sacramento, California 95814
ContractAmendment_comments@water.ca.gov

VIA EMAIL

Subject: Comments Regarding DEIR for SWP Contract Amendment for Water Transfers and WaterFix

Dear Ms. Enos-Nobriga:

On behalf of the Natural Resources Defense Council ("NRDC"), which has more than 450,000 members and activists in California, I am writing to provide comments on the Department of Water Resources' ("DWR") Draft Environmental Impact Report ("DEIR") for the State Water Project ("SWP") Water Supply Contract Amendments for Water Management and California WaterFix ("Transfers and WaterFix Amendments"). The DEIR is legally deficient, and for the following reasons must be revised and recirculated to ensure it complies with the California Environmental Quality Act ("CEQA"):

1. DWR improperly piecemeals and segments analysis of reasonably foreseeable future activities that are part of the project, including related Contract Extension Amendments and WaterFix itself.
2. DWR must recirculate the DEIR to account for and address the impacts of the recently executed agreements between DWR and the Bureau of Reclamation related to operation of the CVP and SWP.
3. DWR's analysis ignores existing data and information that would facilitate complete analysis of the reasonably foreseeable projects impacts, including those that would result from increased frequency and duration of transfers and exchanges.
4. DWR's analysis of project alternatives is inadequate as it fails to analyze alternatives that are feasible and will achieve project objectives.
5. DWR's "Climate Change and Resiliency" analysis fails to adequately address current information that demonstrates future climate changes will exacerbate propose project impacts.

These deficiencies of DWR's DEIR are addressed in turn below.

1

I. DWR improperly piecemeals and segments analysis of reasonably foreseeable future activities that are part of the project, including related Contract Extension Amendments and WaterFix itself.

DWR is in the process of revising its water delivery contracts ("SWP Contracts" or "Contracts") with the 29 SWP contractors to address deficiencies that DWR asserts have constrained the agency's ability to effectively manage the SWP in the face of changing needs, demands, and limitations. As part of this effort, DWR is also seeking to develop the California WaterFix, which consists of new diversions and tunnels in the Delta to deliver water from the Sacramento River to pumps in the southern Delta where it will be available for export to agricultural and municipal and industrial water suppliers south of the Delta. To facilitate and authorize WaterFix, DWR is amending the SWP Contracts to extend them for 50 years (to 2085), redefine "Project Facilities" that can be funded with bonds, and to provide a reliable stream of revenue and facilitate financial planning for SWP ("Contract Extension Amendments"). In addition, and as set forth in this DEIR, DWR proposes to amend that SWP Contracts to facilitate and streamline transfers and exchanges of water among SWP Contractors, and to develop and implement cost allocation and recovery terms for WaterFix among the SWP contractors. Despite the obvious interrelatedness and concurrent consideration of these three efforts, DWR has segmented these actions into three separate undertakings, with separate CEQA analysis. This segmentation results in illegal piecemealing of the required CEQA analysis.

CEQA defines a "project" as the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. *See Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214, 1222 (*Tuolumne County*). The entire project being proposed must be described in the EIR, and the project description must not be artificially truncated so as to minimize project impacts. *City of Santee v. County of San Diego* (1989) 214 Cal. App. 3d 1438, 1450. A project description must include all relevant aspects of a project, including reasonably foreseeable future activities that are part of the project. *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376. Responsibility for a project cannot be avoided by limiting the title or description of the project. *Rural Land Owners Association v. Lodi City Council* (1983) 143 Cal.App.3d 1013, 1025.

Defining and identifying the scope of a "project" for CEQA purposes requires evaluating whether elements of the agency's proposed and contemplated other actions are "related to each other," with the focus being on determining whether the relationship between particular acts and other pending or future acts are among the "various steps which taken together obtain an objective." *See POET, LLC v. State Air Resources Bd.* (2017) 12 Cal.App.5th 52, 74–75, *review denied* (Aug. 23, 2017) (citing and quoting *Tuolumne County*, 155 Cal. App. 4th at 1224). An inadequate project description will result in inadequate analysis of reasonably foreseeable impacts and taint the adequacy of the discussion of project alternatives under CEQA. *See City of Santee*, 214 Cal.App.3d at 1447. Despite these clear guidelines on the scope of the project that must be analyzed under CEQA, DWR has proceeded to improperly segment the consideration

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and approval of its amendments of the SWP Contracts from each other, as well as from WaterFix itself, and thus piecemeal its CEQA analysis of the impacts of the whole of the action.

There is no justifiable basis for segmenting comprehensive, inextricably related contract amendments into two separate sets of amendments analyzed in two separate CEQA processes. As the EIR for the Contract Extension Amendments ("Extension EIR") explained, one of the issues to address with the amendments is associated with securing financing for ongoing SWP operations and maintenance, as well as for modifying and building new infrastructure not currently provided for in the Contracts. *See e.g.*, Extension EIR at 1-2; *see also id.* at 4-1 (recognizing that DWR could not "as a practical matter" issue bonds with a maturity date beyond 2035 without extending the contract terms as proposed); *id.* at 5-4 ("the current Contracts require existing capital obligations to be repaid by 2035, causing a sharp increase in capital charges to contractors toward the end of the 2035 repayment period"). Equally important to DWR's long-term management of the SWP are amended contract terms that allocate capital costs associated with modifying existing facilities and constructing new facilities. The need to amend contract terms to address this issue was well known prior to circulation of the DEIR. *See* State Water Contractors Management Briefing to DHCCP SWP Cost Allocation Working Group, at 9 (November 8, 2013) ("Contract Amendment Likely Needed to Reflect Different Cost Allocations and Different Water Supply Deliveries, and Allowance for Annual Sales");[1] *see also id.* at 13 ("SWP Contract Amendment Needed" for Alternative 2C); *id.* at 17 (Alternative 4A "Would Require Contract Amendment"); State Water Contractors Presentation to SWP Cost Allocation Workgroup (April 1, 2014).[2] DWR cannot treat the two sets of contract amendments it asserts are necessary to facilitate long-term management of the SWP as separate CEQA "projects:" both sets of contract amendments are among the "various steps which taken together obtain an objective." DWR's improper segmentation of Contract amendments into two projects rendered finalization of the Extension EIR defective, and now makes the DEIR for the Transfers and WaterFix Amendments defective as well.

Further, there is no doubt that these contract amendments are essential to WaterFix. *See, e.g.*, Letter from Jake Campos, STIFEL, to Mary Lou Cotton, State Water Project Contract Authority at 4 (March 19, 2014) (without contract amendments, "DWR's legal counsel has concluded that BDCP [now WaterFix] is not on the list of approved projects that are eligible for funding, including through bond financing").[3] DWR's recently approved Contract Extension Amendments, which it approved on December 11, 2018, confirms that amendments include modifications that are designed to enable the construction of new facilities, including WaterFix.

2 (cont.)

[1] The State Water Contractors Management Briefing to DHCCP SWP Cost Allocation Work Group is attached as Exhibit A (previously provided as Exhibit F to the Extension DEIR Comments and Exhibit D to our Scoping Comments related to this DEIR).
[2] The State Water Contractors Presentation to SWP Cost Allocation Work Group is attached as Exhibit B (previously provided as Exhibit G to the Extension DEIR Comments and Exhibit E to our Scoping Comments related to this DEIR).
[3] The March 19, 2014 Letter from Jake Campos, STIFEL, to Mary Lou Cotton, State Water Project Contractors Authority, is attached as Exhibit C (previously provided as Exhibit A to the Extension DEIR Comments and Exhibit B to our Scoping Comments related to this DEIR).

See State Water Project Water Supply Contract Extension Amendment, Article 1(ap)(11) (allowing DWR and the Contractors to authorize financing and building WaterFix with CVP Act bonds provided 80% of affected Contractors agree to the capital expenditure).[4] Now DWR is proposing to amend the contracts to include terms that will allocate costs and establish repayment terms for WaterFix. DEIR, p. 4-8. Not only has DWR improperly piecemealed its CEQA analysis of the two sets of Contract amendments necessary to continue the functional operation of the SWP, DWR has also improperly segregated analysis of the WaterFix itself from the contract amendments necessary to implement WaterFix. DWR chose to engage in three separate CEQA processes, even though each is an essential and necessary step to obtain the objectives sought. Such segmentation of the project and piecemealing of the environmental analysis is not permitted under CEQA.

2 (cont.)

The implications of piecemealing the project and associated analysis of impacts are significant, as it has and will continue to deprive the public and decision makers of the opportunity to evaluate the impacts of the whole of the action. "[C]hopping a large project into many little ones" does not minimize their collective impacts. *Laurel Heights*, 47 Cal.3d at 396. For example, the DEIR indicates that the project will establish contract provisions that govern long-term transfers and exchanges of SWP water between contractors. These long-term transfers have the potential to increase and harden demand for water by shifting it to ever growing urban areas and facilitating development that will rely on this water. But without including analysis of the impacts of contract provisions related to long-term transfers along with analysis of impacts of extending the contracts, the full scope of these impacts will not be disclosed in relation to each other as required by CEQA.

II. DWR must recirculate the DEIR to account for and address the impacts of the recently executed agreements between DWR and the Bureau of Reclamation related to operation of the CVP and SWP addendum.

3

On December 12, 2018, DWR and the Bureau of Reclamation ("BOR") executed an addendum to the Coordinated Operations Agreement ("COA Addendum").[5] Important changes include amending Article 6(c) of the COA to alter the obligations of DWR and the BOR to meet storage withdrawal obligations to meet Sacramento Valley in-basin uses under various water year types. Under the original COA each party's responsibility for making storage withdrawals to meet Sacramento Valley in-basin use was fixed, with the BOR percentage at 75% and DWR at 25%. The amended language *reduces* the BOR percentage to 65% in Dry Years and 60% in Critical Years, and maintains or raises it in other water year types. Water supply modeling by the U.S. Bureau of Reclamation of the COA Addendum shows that the SWP would relinquish an average

[4] State Water Project Water Supply Contract Extension Amendment executed by DWR and the Metropolitan Water District of Southern California available online at https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-Project/Management/SWP-Water-Contractors/Metropolitan-Water-District-of-Southern-California/Files/Metropolitan-WSC-Extension-Amendment-121118.pdf?la=en&hash=5649802195BB9FFFF4AFD40696430624DDBD6B37. A copy is attached to this letter as Exhibit D.

[5] The COA is attached as Exhibit O.

of 118,000 acre-feet of water per year to Central Valley Project, with greater reductions in SWP water supply in Dry water years.[6] This is a substantial change in the ability of the SWP to meet contractors demands that will likely result in foreseeable changes to the frequency, timing, and duration of water transfers (especially in certain water year types) and must be addressed in the DEIR. [7]

Also on December 12, 2018, DWR and the BOR entered into an "Agreement to Address the Effects of the California WaterFix on Central Valley Project Operations" ("No Harm Agreement").[8] Under the No Harm Agreement, in the event WaterFix operations are not fully integrated into the operation of the CVP, DWR is obligated to offset any reduction in CVP water supply caused by terms and conditions that may apply to the operation of WaterFix. Like the COA Addendum, the No Harm Agreement could result in further constraining the availability and reliability of SWP water. As such, it is foreseeable that there will be a substantial change in the ability of the SWP to meet contractors demands, which will likely result in foreseeable changes to the frequency, timing, and duration of water transfers (especially in certain water year types) and must be addressed in the DEIR.

3 (cont.)

The implications of the COA Addendum and the No Harm Agreement must be addressed in the DEIR in order to ensure the proposed project achieves the project objective of fairly and equitably allocating costs for constructing and operating WaterFix. In particular, at times when water is most scarce, the SWP will bear a greater responsibility for ensuring Sacramento Valley in-basin uses are met. In addition, the No Harm Agreement ensures that CVP water will be supplied even if the United States does not agree to fund the construction of WaterFix. As a result, it is nearly certain that in the future water available to contractors will decline, and the appropriateness of and ability to effectuate transfers and exchanges will be impacted. As will the ability for contractors to use water revenues to repay SWP construction and operation costs. Potential impacts to the environment, such as increased reliance on groundwater and changes caused by shifting points of use of SWP water will be magnified – or at a minimum made different – by the changes to the COA and the No Harm Agreement. The DEIR must be recirculated to address and analyze, with supporting data, the impacts of the proposed project and considered alternatives in light of foreseeable changes to operation of the SWP that will result from these recent agreements.

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[6] "Under a separate deal made Wednesday with the Trump administration on rules governing Delta pumping, the State Water Project will relinquish an average of 100,000 acre-feet of water a year to customers of the federal Central Valley Project…" https://www.sacbee.com/latest-news/article223114775.html. A copy is attached to this letter as Exhibit E.

[7] In addition, modeling in the Bureau of Reclamation's Environmental Assessment shows that temperature dependent mortality of endangered winter-run Chinook salmon would increase in certain dry and critically dry years as a result of the COA addendum. Given the degraded environmental baseline, this adverse environmental impact of the COA addendum constitutes a mandatory finding of significance under CEQA. Cal. Code Regs., tit. 14, § 15065(a)(1).

[8] The No Harm Agreement is attached as Exhibit P.

III. DWR's analysis ignores existing data and information that would facilitate complete analysis of the projects impacts, including those that would result from increased frequency and duration of transfers and exchanges.

Throughout the DEIR, DWR asserts that it lacks data and information to conduct a thorough review of the impacts of transfers and exchanges that will be facilitated by the proposed project. This is simply false. DWR has decades of data and information available to it that identifies transfers and exchanges made over the years, as well as associated information related to the environmental impacts of those transfers and exchanges. Rather than duck the issue and assert that this is a programmatic DEIR, and that the specific impacts of a specific transfer or exchange will be analyzed through the review process at the time it is proposed, DWR must undertake the analysis of the reasonably foreseeable effects of transfers and exchanges that will be facilitated by the proposed project now.

In addition to information regarding historic water transfers and environmental impacts, SWP contractors have identified the potential terms of water transfer agreements that would utilize these proposed SWP contract amendments to pay for WaterFix. Among the information available to DWR to conduct this analysis are recent materials generated by the Metropolitan Water District of Southern California ("MWD") in its recent consideration of its decision to agree to take a larger role in funding WaterFix.[9] Staff for MWD explained in a presentation in March 2018 that permanent SWP Table A water transfers would be used to pay for WaterFix, identifying specific SWP contractors that are likely to sell water in order to avoid paying the full capital costs of WaterFix.[10] MWD's presentation identified proposed terms for water transfer agreements, and it is reasonably foreseeable that such agreements could result in the transfer of hundreds of thousands of acre feet of water per year from SWP agricultural contractors such as Kern County Water Agency to SWP urban contractors such as MWD. However, rather than analyze likely water transfer scenarios, and the associated impacts these transfers would cause, DWR ignored the issue.

Instead, throughout the DEIR, DWR argues that the precise location, amount and timing of future water transfers and exchanges are not known at this time, that its analysis in this DEIR is programmatic, and therefore it is unknowable what changes in the physical environment may occur due to implementation of the proposed amendments. *See e.g.*, page 5-16-15 (surface water hydrology section). DWR further states that this uncertainty regarding impacts will be addressed with specific analysis by individual contractors at some future time through "the appropriate project-level CEQA documentation." Such an approach is unacceptable under CEQA because it fails to consider the cumulative impacts of individual water transfer agreements and because there are no commitments in the DEIR that will ensure such project-level CEQA documentation

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[9] *See e.g.*, March 27, 2018 Presentation to MWD Board entitled "California WaterFix Board Workshop," attached to this letter as Exhibit F.
[10] *Id.* at 23-28.

will ever be completed. In many cases contractors may rely on single-year transfers, and potentially avoid having to complete detailed CEQA environmental reviews and mitigation.

To remedy this systemic failure by DWR to address and analyze reasonably foreseeable impacts with available data, a new DEIR must be prepared to analyze, disclose and fully mitigate all significant environmental impacts. Where impacts are not disclosed because they are too speculative, the DEIR must include mitigation measures that commits contractors to legally binding environmental commitments to ensure a complete analyses at the project-level, including cumulative impacts, before any water transfers and exchanges can take place.

4 (cont.)

IV. DWR's analysis of project alternatives is inadequate as it fails to analyze alternatives that are feasible and will achieve project objectives.

CEQA requires that the agency consider and analyze a reasonable range of alternatives to the proposed project. 14 C.C.R. § 15126.6. Alternatives should be considered in the EIR if they can reduce or mitigate environmental impacts, obtain most of the project objectives, and are potentially feasible. *Watsonville Pilots Association v. City of Watsonville* (2010) 183 Cal. App. 4th 1059, 1089; *Sierra Club v. County of Orange* (2008) 163 Cal. App. 4th 523, 547. The key to determining alternatives for study in an EIR is to identify those that meet most project objectives while reducing "any" of the project's environmental impacts. *Id.* As the California Supreme Court stated, the discussion of alternatives forms the "core of the EIR." *Citizens of Goleta v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564. The alternatives presented and discussed in the EIR thus forms the basis for ensuring CEQA's fundamental policy – that public agencies should require implementation of feasible alternatives to reduce a project's significant environmental impacts – is met. *See* Public Resources Code § 21002. DWR has not met this standard in the DEIR.

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DWR identified the project objectives as follows:

1. Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water supply within the SWP service area, and

2. Provide a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity.

In our scoping comments we identified several alternatives to the proposed project that meet these project objectives, are potentially feasible, and would mitigate project impacts. Our proposed alternatives included incorporation of some or all of the following contract amendments (in addition to the proposed amendments):

- Reduction of allocations in Table A to reflect amounts that DWR's analyses indicate the SWP is capable of delivering;

- A requirement that Contractors meet mandated water conservation standards in order request and receive SWP water;
- A requirement that Contractors meet mandated water conservation standards in order to be eligible to make or receive a transfer or exchange SWP water; and
- Establishment of alternative cost recovery mechanisms that eliminate the take-or-pay framework regardless of the quantities of water delivered, distributing fixed charges based on relative share of prior year deliveries; supplementing lower fixed charges with volume-based variable charges; allowing contractors to sell or exchange local conservation savings through the SWP; or reserving some portion of the SWP water for auction.

DWR rejected all but the first - "Reduce Table A Amounts" - alternative based on self-serving arguments that because conservation measures are required by other laws, and because the alternative cost recovery mechanisms proposed do not provide requisite certainty to SWP contractors, they do not meet project objectives of facilitating greater water management regarding transfers and exchanges and ensuring fair and equitable approach to allocating and recovering WaterFix costs. DWR's assertions are not based in fact. Rather, requiring compliance with water conservation measures in order to be eligible for water transfers and exchanges would facilitate achievement of the project objective of providing greater water management. It would ensure that only those contractors that were implementing and complying with laws designed to efficiently and effectively manage limited water resources (and thus contributing positively to overall SWP water management) would be eligible to transfer and exchange water, thus guaranteeing water is not wasted and is reasonably used. 5 (cont.)

Moreover, DWR's excuse for not analyzing alternative cost recovery mechanisms is fundamentally flawed. Rather than explain how and why the proposed alternative is infeasible, DWR arbitrarily declares it to be infeasible without any analysis or justification to support this conclusion. DWR states that alternative cost recovery mechanisms do not meet the project objective of providing a fair and equitable cost allocation for WaterFix – though it does not explain why (or why the proposed cost recovery mechanisms cannot provide the certainty it says SWP contractors need). Instead, DWR asserts that "the proposed project cost recovery methodology will be used to recover the substantial capital and debt service costs involved in this project." DWR's refusal to consider an alternative because its methods set forth in the proposed project "will be used" is antithetical to core requirement of any EIR to consider a reasonable range of alternatives. To address this failing, the DEIR should be recirculated with a fair consideration of a reasonable range of alternatives, including alternative cost recovery mechanisms.

DWR's consideration of the Reduce Table A Amounts alternative was similarly deficient. Rather than consider the Reduce Table A Amounts alternative as part of a complete set of amendments that also included contract terms to provide greater water management regarding transfers and exchanges, DWR's Reduce Table A Amounts was considered in isolation. By failing to include a

Reduce Table A Amounts scenario as part of a package of amendments that would include transfer and exchange related terms, DWR self-servingly created a scenario in which it could argue that the Reduce Table A Amounts alternative would fail to meet project objective of ensuring greater water management with the new transfer and exchange. The DEIR does not include a reasoned basis for not including Reduce Table A Amounts alternative with other terms that would govern the transfers and exchanges of water. DWR's excuse that the current transfer and exchange provisions of the contracts would be the only regime under which Reduce Table A Amounts alternative would operate is prejudicial to a full and fair consideration of this alternative, and renders the DEIR defective.

5 (cont.)

V. DWR's "Climate Change and Resiliency" analysis fails to adequately address current information that demonstrates future climate changes will likely exacerbate proposed project impacts.

In our scoping comments, we provided materials essential to a complete and thorough consideration of climate change-related considerations that must be analyzed in the DEIR. DWR did not include discussion or reference to the materials we provided. Nor does DWR's analysis in the DEIR address the issues raised by the materials and comments provided.

DWR calculates the delivery capability of the SWP taking into account the impacts of climate change on the amount of water expected to be retained in conservation facilities such as Lake Oroville and subsequently available for diversion from the Delta. DWR and others have conducted extensive analysis of the projected impacts of climate change on SWP deliveries, which uniformly predict reduced deliveries over the next 50 to 100 years. For instance, a May 2009 report prepared by DWR for the California Climate Change Center estimates that Delta exports will be reduced by 7 to 10 percent by 2050, and by 21 to 25 percent by 2100.[11] Moreover, the bulk of the scientific data and analysis indicates that the availability of water in conservation facilities will continue to decline, and that the amount of water retained in these facilities will become increasingly inconsistent and more volatile.[12] A recent scientific article summarized the likely impacts of climate change on the availability of water accessible to the SWP as follows:

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> Shifts in streamflow regimes towards higher flow magnitudes in the wet season and lower flow magnitudes in the dry season present a major challenge to California's water storage, flood control, and conveyance systems. Because most of California's large

[11] California Department of Water Resources, *Using Future Climate Projections to Support Water Resources Decision Making in California* (May 2009) CEC-500-2009-052-F at page 3 (attached as Exhibit G and available online at http://www.water.ca.gov/pubs/climate/using_future_climate_projections_to_support_water_resources_decision_making_in_california/usingfutureclimateprojtosuppwater_jun09_web.pdf, attached to Scoping Comments as Exhibit L).

[12] Dettinger et al, *Climate Change and the Delta* (October 2016) at 12-16 (attached as Exhibit H and available online at https://escholarship.org/uc/item/2r71j15r, attached to Scoping Comments as Exhibit M).

> reservoirs are also managed for flood control, it is unlikely that managers can take advantage of increased winter flows for storage. Coupled with flow declines in the spring and early summer, predicted shifts in hydrology are likely to reduce the state's managed water supplies.[13]

6 (cont.)

DWR also estimates the delivery capability of the SWP by taking into account conditions mandated by the biological opinions prepared by Federal agencies and corresponding California Endangered Species Act requirements of DFW.[14] These conditions require releases from storage facilities to ensure adequate inflow to the Delta and restrict diversions from the Delta to ensure sufficient outflow from the Delta to protect endangered species including Delta smelt, salmonids, and sturgeon. *Id*. at 6-7. As DWR acknowledges, the terms of the biological opinions have become "increasingly restrictive" and have the effect of "requiring constraints on the total SWP … exports from the Delta." *Id.*

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Likewise, delivery capability is constrained by conditions necessary to ensure the water quality objectives in the Bay-Delta Water Quality Control Plan (WQCP) are met. Scientists and resource agencies recognize that the main source of SWP water, the Sacramento-San Joaquin River Delta, is in critical decline and needs increased flows (and reduced diversions) to recover.[15] To this end, the State Water Resources Control Board is presently engaged in updating the WQCP. Scientific reports informing the revisions to the WQCP indicate that increased inflows from tributaries as well as additional outflows above those currently mandated in the WQCP will be necessary to protect the beneficial uses of the Delta. For example, the Fact Sheet related to the Phase II update of the WQCP (which addresses inflows to the Sacramento River, the Delta and

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[13] Grantham et al, *Sensitivity of streamflow to climate change in California* (July 11, 2018) available online at https://doi.org/10.1007/s10584-018-2244-9 (attached as Exhibit I, attached to Scoping Comments as Exhibit N).

[14] California Department of Water Resources, State Water Project Draft Delivery Capability Report 2017, at 5-8 (attached as Exhibit J and available online at https://water.ca.gov/Library/Modeling-and-Analysis/Central-Valley-models-and-tools/CalSim-2/DCR2017, attached to Scoping Comments as Exhibit K).

[15] *See* generally, State Water Resources Control Board "Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem" (August 2010) (available online at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/final_rpt080310.pdf); United States Fish and Wildlife Service, "Formal Endangered Species Act Consultation on the Proposed Coordinated Operations of the Central Valley Project and State Water Project" (December 2008) (available online at https://www.fws.gov/sfbaydelta/Documents/SWP-CVP_OPs_BO_12-15_final_signed.pdf); National Marine Fisheries Service, "Biological and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project" (June 2009) (available online at https://www.fws.gov/sfbaydelta/Documents/SWP-CVP_OPs_BO_12-15_final_OCR.pdf); California Department of Fish and Game, "Consistency Determination" (2009) (available online at https://calsport.org/DFGConsistencyDetermination.pdf); California Department of Fish and Game, "California Endangered Species Act Incidental Take Permit, Longfin Smelt, California State Water Project Facilities and Operations" (2009) (available online at https://www.dfg.ca.gov/delta/data/longfinsmelt/documents/ITP-Longfin-1a.pdf).

Tributaries, Delta Outflows, Cold Water Habitat, and Delta Flows) indicates that additional restrictions on the availability of water for SWP diversion and export is likely to result from WQCP amendments that will require:

- A new year-round inflow requirement that will restrict the water available to be stored in SWP conservation facilities;
- A general narrative objective for cold water management to be implemented with the inflows described above; and
- Maintenance of minimum year-round Delta outflows, and a new "inflow-based Delta outflow" objective that integrates inflow and outflow requirements that will restrict water availability for diversion and export[16]

Taken together, these updates to the WQCP will likely further restrict the delivery capability of the SWP.

8 (cont.)

In addition to constraints imposed by physical changes to the environment and regulatory conditions applicable to the SWP, in 2009, the Legislature passed a law requiring that the State reduce reliance on the Delta as a source of water supply in recognition of ecological problems associated with excessive water diversions and other vulnerabilities of relying on the Delta as a future source of water supply.[17] The same act established co-equal goals for the Delta of improving the reliability of water supplies and restoring the Delta ecosystem.[18] Finally, several recent reports have acknowledged the extensive overallocation of water rights in the Delta, including DWR's permits for the SWP, which are junior to many of the existing water rights in the system.[19] The information above demonstrates it is likely that on top of the fact that deliveries currently average only 60% of the Table A Water allocations, water available for delivery to SWP Contractors will become even more scarce in the future.

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In addition, in its Fourth Climate Change Assessment[20] the State of California recognizes:

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[16] *See* State Water Resources Control Board, "Fact Sheet for Phase II Update of the Bay-Delta Plan: Inflows to the Sacramento River and Delta and Tributaries, Delta Outflows, Cold Water Habitat and Interior Delta Flows" at 6, 8, 9, 11 (attached as Exhibit K and available online at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/comp_review.shtml, attached to Scoping Comments as Exhibit O).
[17] Water Code section 85021.
[18] Water Code sections 85023, 85032, 85054, 85300.
[19] *See, e.g.*, Grantham and Viers, "100 Years of California's Water Rights System: Patterns, Trends and Uncertainty," IOP Science (August 2014) (attached as Exhibit L and available online at http://iopscience.iop.org/article/10.1088/1748-9326/9/8/084012/pdf, attached to Scoping Comments as Exhibit P).
[20] *See* Thorne, James H., Joseph Wraithwall, Guido Franco. 2018. *California's Changing Climate 2018. California's Fourth Climate Change Assessment*, California Natural Resources Agency (Exhibit M) at 10-11.

> The impacts of climate change on California's water infrastructure and management are especially profound and are causing shifts in the water cycle, greater risks to engineered systems, and threats to ecosystems and water quality. The complex network that stores and distributes water throughout the state was designed for historical hydrologic conditions that are now changing. The Fourth Assessment contributes critical knowledge to understand these new risks and to improve management.
>
> Modeling of reservoir operations show that Shasta and Oroville reservoirs, the two largest in the state, will have roughly one-third less water stored annually by the end of the century under current management practices. This reduced storage could limit water supplies and thus lower resilience to droughts. Changes in seasonal precipitation combined with the effects of sea level rise in the Delta may compound water supply reliability for cities and farms that depend on imported water from the State Water Project and Central Valley Project, as exports from the Delta in future droughts could be reduced by as much as 50% more than during historical droughts. The Fourth Assessment also found that water rights administration and oversight practices from past droughts are ill-suited to the growing challenges for water management from climate change.

10 (cont.)

Of particular relevance here, the Fourth Climate Change Assessment includes a scientific paper analyzing the impacts of climate change on the SWP. As explained in this paper, climate change is likely to bring about seasonal flow pattern shifts in California rivers, which will result in higher winter flows and lower spring and summer flows.[21] The authors of this paper predict that these seasonal flow pattern shifts will have the following two significant impacts on SWP operations by 2060:

1. An average annual reduction in Delta export flows of 0.5 MAF; and
2. A reduction of carryover storage in north-of-Delta reservoirs (including Oroville) by as much as 25%.

Despite the multitude of studies highlighting how climate change impacts the operation of the SWP, DWR did not analyze or address in detail how the proposed project impacts will be effected by climate change, or how the proposed project will affect the areas impacted by the project in relation to the impacts caused by climate change. Instead DWR states, without analysis that "under the proposed project, exchanges may be used more frequently to respond to variations in hydrology, such as wet years, and in single dry-year and multiple dry-year conditions," and "the proposed amendments would provide opportunities for PWAs to implement water management strategies to help maintain water supply reliability for their service areas in response to climate change." Whether this is true or not, DWR has failed to provide an explanation for these conclusions, or analyzed whether these changes in transfers and exchanges

[21] *See* Wang, Jianzhong, Hongbing Yin, Erik Reyes, Tara Smith, Francis Chung (California Department of Water Resources). 2018. *Mean and Extreme Climate Change Impacts on the State Water Project*. California's Fourth Climate Change Assessment. Publication number: CCCA4-EXT-2018-004. (Exhibit N) at iii-iv, 20-23.

will even be possible considering the consensus that the overall availability of water is likely to be dramatically decreased in the future, including as a result of climate change.

As the findings from the Fourth Climate Change Assessment make clear, water supplies will continue to decline over the life of the proposed term of the extended SWP contracts. Declining SWP water supplies has several implications that must be assessed in an adequate CEQA review, including, for example: how reduced net revenues will impact the ability to finance SWP facility construction and maintenance; how reduced net revenues will impact the financial stability of the SWP by limiting the ability to repay bonds; and how limited SWP water supplies would likely be shifted from one use to another, causing changes to the landscape in both the areas receiving water and those not receiving water, by increasing the likelihood that areas that can reliably charge more for water (and thus increase net revenues to pay for SWP infrastructure and operations) will receive more SWP water than they have historically. Moreover, the impact of the proposed project and how it may exacerbate or mitigate the impacts of climate change in the study area (the SWP service area) must be analyzed with supporting data (not speculation) in the DEIR. None of these issues are not adequately disclosed or addressed in the DEIR. DWR should recirculate the DEIR to cure these shortcomings.

10 (cont.)

***

As we have repeated in previous comments related to proposed amendments to the SWP Contracts, DWR's action necessarily implicates the urgent need to modernize additional contract terms to reflect the current realities of climate change, restricted surface water supplies, declining water quality and environmental health of the Bay-Delta estuary, existing statutory requirements, and other current and anticipated changes that have occurred since the Contracts were originally executed. It is insufficient under CEQA, and against public policy, for DWR to continue to segregate its efforts to amend the SWP Contracts.

Thank you for the opportunity to provide our comments regarding these proceedings. We look forward to participation and involvement as this important process moves forward.

11

Drevet Hunt
Natural Resources Defense Council

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Via email: ContractAmendment_comments@water.ca.gov

9 January 2019

Cassandra Enos-Nobriga, Executive Advisor
State Water Project
California Department of Water Resources
P.O. Box 942836
Sacramento, CA 95814

Subject: Comments on Draft Environmental Impact Report (DEIR) for Proposed State Water Project Water Supply Contract Amendments for Water Management and California WaterFix (CWF Contract Amendments)

Dear Ms. Enos-Nobriga:

Restore the Delta advocates for local Delta stakeholders to ensure that they have a direct impact on water management decisions affecting the water quality and well-being of their communities, and water sustainability policies for all Californians. We work through public education and outreach so that all Californians recognize the Sacramento-San Joaquin Delta as part of California's natural heritage, deserving of protection, and restoration. We fight for a Delta whose waters are fishable, swimmable, drinkable, and farmable, supporting the health of the San Francisco-San Joaquin Delta as a place where a vibrant local economy, tourism, recreation, farming, wildlife, and fisheries thrive as a result of resident efforts to protect our waterway commons.

We provide here our comments on the above-mentioned CWF Contract Amendments DEIR (DEIR). Tim Stroshane, Restore the Delta's policy analyst, attended many of the public negotiation sessions held this past spring, listening to discussions engaged in by representatives of both the California Department of Water Resources (DWR) and the Public Water Agencies (also known and legally organized as the State Water Contractors, referred to here as SWC). Ms. Barbara Barrigan-Parrilla and Mr. Stroshane have both served as witnesses on protestant Restore the Delta's behalf before the State Water Resources Control Board during the water rights change petition proceeding on the proposed California WaterFix. In addition, we have each attended meetings of water

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districts interested in obtaining water from the California WaterFix project to watch them deliberate and hear their concerns as actual or potential participants in project financing about the California WaterFix project. These districts and agencies include the Metropolitan Water District of Southern California, Kern County Water Agency, Westlands Water District, Alameda County Zone 7 Water Agency, and Santa Clara Valley Water District. We have listened to their concerns, written them letters, and/or provided oral comments to each and every board member of their agencies about Restore the Delta's concerns about the California WaterFix project. We have learned much throughout this process. In addition, we have monitored and made comments at several meetings of the Design Construction Finance Authority and the Delta Design Construction Authority, the newly formed joint powers authorities for California WaterFix.

1 (cont.)

The Project is Prohibitively Expensive

Among the things we learned was that the California WaterFix project is very expensive. Board members frequently expressed concerns about the cost of the project and that other potential customers for the project were not stepping up to pay a fair share for the project. The U.S. Bureau of Reclamation has still not been authorized to participate, nor has it been appropriated funds to contribute to its construction. For Central Valley Project contractor Westlands Water District, the largest and wealthiest agricultural water district in California, the proposed project has remained prohibitively expensive.

2

The Project has been "piecemealed" from the start, and this DEIR is another piece that is contrary to the California Environmental Quality Act.

The Draft EIR tries to escape responsibility of the proposed contract amendments for construction and operation of the California WaterFix. Construction of the Tunnels depends crucially on the cost allocations for the tunnels project in these contract amendments. You cannot have one without the other. The project is unlawfully segmented (or "piecemealed"). It is one unified project for CEQA purposes—contract extensions are needed to "decompress" financing terms, contract amendments are needed to finance and operate the project, and then the construction and operation of the project itself. The Draft EIR is inadequate for unlawfully focusing on just these contract amendments to the exclusion of the other two components.

3

The Project is Premature, Despite Twelve Years of Planning

It appears the project is at best premature, even after twelve years in the planning stages. A WIFIA loan application for the project (worked on for the project's joint powers authorities by staff at the Kern County Water Agency) was recently rejected by the U.S. Environmental Protection Agency. Eligible development and implementation activities for WIFIA loans include:

- Development phase activities, including planning, preliminary engineering, design, environmental review, revenue forecasting, and other pre-construction activities.

- Construction, reconstruction, rehabilitation, and replacement activities.

4

- Acquisition of real property or an interest in real property, environmental mitigation, construction contingencies, and acquisition of equipment.

- Capitalized interest necessary to meet market requirements, reasonably required reserve funds, capital issuance expenses and other carrying costs during construction.[1]

In sum, WaterFix has not finished all pre-construction activities. WaterFix is not under construction at this moment, and does not already exist to be rebuilt, rehabbed or replaced. WaterFix's real property interest in water is not yet affirmed—they don't have their water rights permit modification yet, nor does the project yet have a 401 water quality certification or a 404 dredging/filling permit for activities in Delta channels. Their financing is not complete. It appears to us that the California WaterFix loan application was at best premature. The project has been rushed unnecessarily—largely for political reasons.

4 (cont.)

The Project is contrary to state policy requiring reduced reliance on the Delta for California's future water needs.
Next, the Draft EIR acknowledges the coequal goals of the Delta Reform Act of 2009, but fails to disclose and analyze the contract amendments' relationship to reducing reliance on the Delta for California's future water needs. Mr. Stroshane's testimony for RTD and San Joaquin County during the tunnels water rights hearings documents numerous assertions by DWR, the Metropolitan Water District of Southern California (MWD), Kern County Water Agency (KCWA), and Westlands Water District (WWD) that the project's increase of conveyance capacity across the Delta would at least maintain deliveries and increase water transfer opportunities in flagrant violation of state policy to reduce Delta import reliance.

5

The Project is contrary to state and federal law and policies concerned with protection of environmental justice communities.
Finally, the Draft EIR continues DWR's traditional neglect of the tunnels project's environmental justice issues—in this instance the cost allocation components of the proposed contract amendments will result in the environmental justice impacts RTD itemized in our testimony to the State Water Board and in comments on previous environmental documents because they will make possible construction and operation of the Tunnels project with all its attendant impacts. In-Delta and Northern California environmental justice communities will be subjected to negative environmental and water quality impacts; Southern California environmental justice communities will be subjected to significate water rate impacts.

6

DWR extended the comment period on this DEIR by 30 days to accommodate the disruptions to everyday life imposed by the Camp Fire on Plumas, Butte, Yuba, and Sutter county officials and their communities.

7

[1] Eligibility criteria for WIFIA loans from the U.S. EPA web site accessed 30 November 2018 at https://www.epa.gov/wifia/learn-about-wifia-program#overview.

We appreciated that DWR added the November 30th public meeting to the process for this EIR, and Mr. Stroshane stated so at that meeting, though just one person attended the November 16th meeting when air quality conditions throughout the Central Valley and the Bay Area were considered hazardous. Restore the Delta also expresses our gratitude to DWR for extending the comment period an additional thirty days to January 9, 2019, though we requested sixty additional days. 7 (cont.)

We have more specific comments on the DEIR attached to this letter, as well as further attachments that document our comments. We wish them included in the administrative record for this DEIR. 8

Thank you for the opportunity to comment.

Sincerely,

Barbara Barrigan-Parrilla
Executive Director

Tim Stroshane
Policy Analyst

Attachments:
1. Restore the Delta's Comments on the Draft EIR
2. DWR and State Water Resources Control Board, *2012/2013 Transfer Activity*.
3. Restore the Delta, *The Fate of the Delta* report.

cc: Roger Moore, Rossmann & Moore LLC
Deirdre Des Jardins, California Water Research
Patricia Schifferle, Pacific Advocates
Carolee Krieger, California Water Impact Network
Barbara Vlamis, AquAlliance
Bill Jennings, California Sportfishing Protection Alliance
Jonas Minton, Planning & Conservation League
Adam Keats, Center for Food Safety
John Buse, Center for Biological Diversity
Doug Obegi, Natural Resources Defense Council
Nina Robertson, EarthJustice
Robert Wright, Friends of the River
Conner Everts, Environmental Water Caucus
Kathryn Phillips, Sierra Club

ATTACHMENT 1
Restore the Delta's Comments on the Draft EIR

Restore the Delta has been a member NGO within the California Environmental Water Caucus and a Protestant before the California WaterFix water right change petition proceeding before the State Water Resources Control Board (SWRCB). We have long concluded that one of the Tunnels project's purposes is the facilitation of cross-Delta water transfers—providing greater engineered conveyance capacity for non-project water deliveries to SWP (and perhaps CVP) contractors. This context has been improperly excluded from the baseline and objectives for the proposed project. 9

DWR "piece-meals" the proposed project, contrary to CEQA.
This Draft EIR is improperly piece-mealed and disconnected from the earlier environmental reviews pertaining to contract extensions and the California WaterFix (the Tunnels project). They are treated as separate "projects," handled in serial rather than holistic fashion. The contract changes from 2016 and at present are inextricably needed for the Tunnels project to move forward because they seek to provide sufficient and advantageous financing terms that will directly lead to construction of the Tunnels project.

The California Environmental Quality Act (CEQA) defines a project as "an activity which may cause either a direct physical change in the environment, or reasonable foreseeable indirect physical change in the environment" including:

- an activity directly undertaken by any public agency
- an activity undertaken by a person which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies; or
- an activity that involves issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

(Public Resources Code sec. 21065.)

CEQA Guidelines stress that a "project" means "the whole of an action, which has a potential" to cause physical change in the environment or a reasonably foreseeable indirect physical change in the environment. (CEQA Guidelines sec. 15378(a).) A project does not mean "each separate government approval" (CEQA Guidelines sec. 15378(c).) In this instance, we argue that DWR has improperly separated three different "projects," all of which function to undertake the project "California WaterFix" (Tunnels project): the State Water Project contract extension amendments (SCH #2014092036), The BDCP/California WaterFix EIR/EIS (SCH #2008032062), and the SWP water management and California WaterFix cost allocation contract amendments (SCH #2018072033). 10

As stated in our cover letter, the Draft EIR tries to escape responsibility of the proposed contract amendments for construction and operation of the California WaterFix. Construction of the Tunnels depends crucially on the cost allocations for the tunnels project in these contract amendments. One cannot occur without the other; the issuance of revenue bonds and their definitive cost allocation among SWP contractors is a foreseeable action necessary to construction and operation of the Tunnels project. The project is unlawfully segmented (or "piecemealed"). It is one unified project for CEQA purposes—contract extensions are needed to "decompress" financing terms, contract amendments are needed to finance and operate the project, and then the construction and operation of the project itself. The Draft EIR is inadequate for unlawfully focusing on just these contract amendments to the exclusion of the other two components DEIR's baseline omits the overall SWP water transfer market—to the point of obscuring the project's implicit objective to expand the water transfer market.

10 (cont.)

The DEIR's baseline is woefully inadequate—to the point of obscuring a fundamental project objective.

DWR has utterly failed to describe the baseline of all water market activity facilitated by SWP facilities. One consequence of this failure is that the public is prevented from grasping the relative size of market activity to which the DEIR is addressed, nor the size and location of the water to which the Draft agreement in principle applies. Nor would the public be able to grasp the importance of the Tunnels project to the future water transfers market. Our comments here document that importance.

We expect that DWR will treat these general comments about water transfers related to the Draft EIR as beyond the document's scope. Without incorporating the full baseline of the internal SWP water and non-project water transfer market, DWR has defined the DEIR's scope narrowly so that, for purposes of CEQA compliance, non-project water transfers and their facilitation by the California WaterFix project (Tunnels project) are not a project impact. This is contrary to publicly stated expectations for the Tunnels project by DWR and major state and federal water service contractors. Non-project water transfers are key to meeting SWP contractor water demand, especially in dry years. The Tunnels project's design, financing, construction, and operation provide vital continuity to the non-project water transfers market. The trouble is, DWR has yet to acknowledge this as a key project objective, and has in this DEIR even omitted non-project market transfers from this DEIR's baseline context, except when addressing Alternative 2 (see below).

11

Water transfer markets involve buyers, sellers, prices, and water volumes that are the object of the transfers. For the SWP and CVP, there are internal markets among their respective contractors, and an external market between their respective contractors and non-SWP or non-CVP willing sellers. There are also different types of water.

SWP contracts recognize and govern at least four key types of water relating to operations and deliveries within the SWP:

12

- Table A water[2];
- Interruptible water[3];
- Non-project water[4]; and
- Carryover water.[5]

(There are other types of water described in SWP contracts, but they have less relation to present SWP operations.[6])

Article 12(f) of the SWP contracts sets out delivery priorities for project and nonproject water as follows:

- **Table A water** is delivered first, followed by
- **Interruptible water** that goes to fulfill otherwise unmet Table A demand
- **Late delivery of Table A water** whose delayed provision may be requested by the contractor
- Previously stored water (**carryover**)
- Then **non-project water** that helps fulfill otherwise unmet Table A demand

12 (cont.)

[2] Table A water is the most important and reliable type of project water made available by the SWP. "Project water" means water made available for delivery to SWP contractors by the project conservation and transportation facilities (reservoirs, pumping plants, and aqueducts) included in the SWP. (Article 1(l) of Appendix C, Example of Water Supply Contract in the Draft EIR, p. 28. Hereafter cited as "Appendix C." Table A water represents annual amounts that DWR and SWP contractors consider "entitlements" but are treated as ceilings for contractor water demand each year—that is, a demand request from a SWP contractor can only be as high as what Table A specifies for a specific delivery year. DWR determines from hydrology how much water is available to allocate on a pro-rata basis to all SWP contractors based on the relative shares of their Table A amounts. Appendix C, Article 59, pp. 152-155.

[3] "Interruptible water" refers to project water available as determined by DWR that is not *needed* for fulfilling contractors' annual Table A amounts and may be delivered as a lower priority as space exists for storing and conveying such water, and because project hydrology varies from year to year. Interruptible water is typically another name for project "surplus" water that occurs in wetter hydrologic years. Like project water, it originates within and thus controlled by SWP facilities. See Article 1(jj) of Appendix C, p. 33.

[4] "Non-project water" means "water made available for delivery to contractors that is not project water as defined in Article 1(l)." See Appendix C, Article 1(kk), p. 33. That is, non-project water originates elsewhere than in SWP facilities, and such water can be integrated into SWP facilities most directly at Banks Pumping Plant in the south Delta.

[5] "Carryover entitlement water" is (Table A) project water determined by the state to be unneeded for fulfilling contractors' annual entitlement deliveries for a respective year, which is made available for delivery by the State in the next year…" Appendix C, Article 1(jj), p. 33. In short, it is that portion of one year's Table A water that is stored for future use in SWP facilities on behalf of an SWP contractor.

[6] Another type of water recognized in the SWP contract is "supplemental water": water made available by supplemental conservation facilities in excess of the minimum project yield (the latter of which is the dependable annual supply of project water to be made available assuming completion of the SWP facilities. This is a chunk of water that does not directly relate to annual water allocations and sourcing from existing SWP facilities, but to future facilities not yet part of the SWP system. Once developed, supplemental water from these facilities may become Table A, interruptible, or carryover water depending on hydrologic and system capacity conditions.

- **Additional interruptible water** delivered in excess of their Table A demand; and
- **Additional non-project water** delivered in excess of their Table A demand.

12 (cont.)

In BDCP Chapter 7, *Implementation Structure*, it states that "Reclamation will likely enter into an agreement with DWR to 'wheel' CVP water through a new conveyance facility."[7] Why is it that the CVP would want to "wheel" water through the Tunnels project when it may do so already at the SWP's Banks pumping plant?

13

In drier years, there will be extra capacity in the Tunnels, as described in greater detail below. During drier years, full CVP and SWP (Table A) contract amounts will not be available to contractors. While these "contractual" supplies may not be available, the contractors typically have "supplemental demand" for water. Appendix 5D of the BDCP EIR/EIS notes that "supplemental demand" for water transfers is triggered typically when SWP allocations go below 50 percent (of total Table A amount) and CVP allocations go below 40 percent of total contract amount.[8]

14

Climate change bodes that California will experience a wider range of extreme weather patterns—longer droughts punctuated by increased flooding potential. Water transfers are thus liable to be more prevalent, if the Delta Reform Act is ignored.

15

- **The Draft AIP's Section covers just a small portion of the water transfer market's overall project deliveries.**

The Draft AIP is the defining component, if at times sketchy, of this DEIR's project description. The Draft EIR and its Draft AIP clarify that the exchange and transfer contract amendment provisions apply to exchanges and transfers of State Water Project (SWP) water. The water management portions of the contract amendments address how the parties will treat exchanges and transfers for key types of water developed and delivered by SWP facilities.

16

Compared to present conditions, the Tunnels project would provide additional capacity to move transfer water from upstream sources across the Delta to export service areas. Part of that additional capacity comes from the Tunnels permitting a longer window of time than is allowed under current biological

17

[7] BDCP, Chapter 7, *Implementation Structure*, Section 7.1.2.1.1, p. 7-10, lines 11-12. "Wheeling" water occurs when one water project's water—say, deliveries to be made by the Central Valley Project—is actually pumped from the Delta by the Banks pumping plan of the State Water Project. Under the California WaterFix project, "wheeling" could occur further north, at the North Delta intakes, where water quality is typically fresher.

[8] "Comparing the years when cross-Delta transfer activity picks up with allocations, and considering Delta export constraints on transfers, SWP demand for cross-Delta transfers increases noticeably at allocations below 50 percent and CVP demand for cross-Delta transfers increases below 40 percent." BDCP EIR/EIS, Appendix 5D, *Water Transfer Analysis Methodology and Results*, p. 5D-3, lines 29-33.

opinions' and water quality restrictions (July through September).[9] Petition environmental documents also state:

> As a result of avoiding those restrictions, transfer water could be moved at any time of the year that capacity exists in the combined cross-Delta channels, the new cross-Delta facility, and the export pumps, depending on operational and regulatory constraints, including criteria guiding the operation of water conveyance facilities under Alternative 4A.[10]

Identical language is provided for the Tunnels project' other two RDEIR/SDEIS alternatives.[11]

17 (cont.)

- **The internal SWP transfer/exchange market for Table A water.**

The internal SWP market to which the Draft AIP addresses itself appears to address primarily smaller volumes of water to be exchanged or transferred between and among SWP Contractors, governed by a process that seeks to ensure transparency among contractors and DWR and the public. The small volumes are described in Chapter 2 of the DEIR where several examples of exchanges and transfers are disclosed. All involve trades[12] of water that are individually less than 10,000 acre-feet in volume spread over one or more years.[13]

During a wet year like 2011, DWR reported that transferred or exchanged Table A water (that is, project water) amounted to 35,714 acre-feet. Those engaging in transferred or exchanged Table A water were primarily agricultural SWP contractors (Dudley Ridge Water District, Empire Westside Irrigation District, Kern County Water Agency, Tulare Lake Basin Water Storage District) who accounted for ninety percent (90%) of the total that year.[14] During a drought year like 2015, however, this figure more than doubled to 75,804 acre-feet. The same agricultural SWP contractors accounted for fifty-nine percent (59.2%) use of transferred or exchanged Table A water.[15]

18

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[9] William Croyle, Deputy Director, Memorandum to Cindy Messer, Deputy Executive Officer, Delta Stewardship Council, July 14, 2015, p. 13: "The [National Marine Fisheries Service Biological Opinion, NMFS BO] deals with transfers in the same manner as the [U.S. Fish and Wildlife Service Biological Opinion, USFWS BO] on delta smelt, namely, allowing transfers during the July through September summer transfer window and requiring additional consultation should transfers be proposed for export during other times of the year." Hereafter, Croyle Report.

[10] The Draft BDCP EIR/EIS is included as staff exhibits in the record of the California WaterFix water rights change petition proceeding, accessible at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/california_waterfix_hearing.html. SWRCB-3, p. 4.3.1-9, lines 23-26. This and other exhibits from this proceeding will be designated in footnotes here as "Change Petition Proceeding," followed by an exhibit number.

[11] Change Petition Proceeding, SWRCB-3, p. 4.4.1-9, lines 12-19; p. 4.5.1-9, lines 12-19.

[12] "Trades" here is intended as a synonym for both exchanges or transfers, involving either monetary or nonmonetary compensation.

[13] Draft EIR, pp. 2-22 through 2-27.

[14] DWR, *Bulletin 132-12: Management of the State Water Project*, Table 9-5, p. 171.

[15] DWR, *Bulletin 13-16: Management of the State Water Project*, Table 9-7, p. 181.

By contrast, in these same years, non-project water[16] figured prominently in SWP deliveries. In 2011, the combination of "water bank recovery" and "other non-SWP water" accounted for nearly 245,000 acre-feet, ***nearly seven times*** the Table A transfer/exchange market that year. In 2015, non-SWP water deliveries came to about 523,000[17] acre-feet. That year, non-project supplies were ***also nearly seven times*** the Table A transfer/exchange market.

Table 1 is compiled from four consecutive Bulletin 132 reports on management of the SWP—the first four consecutive drought years California just went through after the wet year of 2011. The table shows that the size of the Table A exchanges/transfers market varies greatly, but generally declines with time during the drought of this period. But this dry period also reflects the actions that California's water rights system imposes during droughts—first in time, first in right means that while supplies last the senior appropriators take water first, leaving junior appropriators like DWR and its State Water Project with fewer supplies until the drought breaks. The table also shows the importance of storing non-project water in groundwater banks in the San Joaquin Valley. As the drought unfolded, greater use had to be made of non-project water since SWP supplies dwindled and they did not have more senior claims to divert or store water for their customers.

18 (cont.)

Table 1
Market Size Comparison of Table A Exchanges/Transfers and Non-Project Water Deliveries Using SWP Facilities
2012 to 2015

SWP Delivery Source (TAF)	2012	2013	2014	2015
Table A Exchanges/Transfers (TAF)	381	86	7	76
Non-State Water Project Deliveries (TAF)	218	486	490	394
Total Table A Amount (TAF)	**4,133**	**4,133**	**4,133**	**4,133**
Table A Exchanges/Transfers % of Total Table A	9.2%	2.1%	0.2%	1.8%

[16] In *Bulletin 132-12*, this non-SWP water includes water bank recovery water (stored underground and accounted for) as well as "local and permit water that an SWP water contractor has a water right to, water purchased from, exchanged with, or transferred from non-SWP agencies." p. 168. Water bank recovery water may have been similar water that, instead of being used immediately by the contractor, was put into storage first as part of a conjunctive use strategy.
[17] This figure includes a category of "backup water" amounting to nearly 129,000 acre-feet. DWR does not define it in describing Table 9-7, *Bulletin 132-16*, p. 177.

Table 1
Market Size Comparison of Table A Exchanges/Transfers and Non-Project Water Deliveries Using SWP Facilities 2012 to 2015

SWP Delivery Source (TAF)	2012	2013	2014	2015
Non-State Water Project Deliveries % of Total Table A	5.3%	11.8%	11.9%	9.5%
Ten-Year SWP Delivery Average (2007-2016) (TAF)	**2,571**	**2,571**	**2,571**	**2,571**
Table A Exchanges/Transfers % of Ten-Year Average	14.8%	3.4%	0.3%	2.9%
Non-State Water Project Deliveries % of Ten-Year Average	8.5%	18.9%	19.1%	15.3%
Sources:	DWR 2018, Final State Water Project Delivery Capability Report 2017; DWR Bulletin 132-13 through Bulletin 132-16, Chapter 9; Restore the Delta. Note: TAF = Thousands of acre-feet.			

18 (cont.)

- **Comparison of the internal Table A market with non-project water transfer market.**

DWR's Bulletin 132 data in Table 1 do not make clear how much of the non SWP water came from cross-Delta water transfers each year of the 2012-2015 drought. Table 2, however, presents DWR Bulletin 132 reporting of such water transfers for these years.

The market for non-project water transfers delivered using SWP facilities saw variation during the recent drought, according to DWR. The table above shows that not all water made available is delivered to the buyer using present facilities. Carriage water losses are accounted for in planning and transacting water transfers that must cross the Delta, as most of these did.

Additional information suggests larger non-project water transfer amounts than shown in Table 2. According to a joint fact sheet on 2012/2013 Transfer Activity, agriculture to urban transfers were 29.9 thousand acre-feet (TAF) in 2012 and 39.3 TAF in 2013, generally from the Sacramento Valley across the Delta to southern California (Attachment 2 to this letter).

19

Table 2
Water Made Available and Delivered via Nonproject Water Transfers Using SWP Facilities 2012 to 2015

Market Elements	2012	2013	2014	2015
Sellers	4 from Feather River	18 from Sacramento, Feather, American, and Merced rivers	13 from Feather, Sacramento, Merced, and Old (?) rivers	6 from Sacramento Feather, and American rivers
Water made available (AF)	**67,079**	**86,497**	**133,271**	**17,286**
SWP Buyers	Dudley Ridge WD, Kern County WA	Dudley Ridge, Kern, Zone 7	Alameda County WD, Kings County WD, Dudley, Kern, Napa, Oak Flat, Santa Barbara, Santa Clara	Dudley, Kern, Kings, MWDSC, Napa, Oak Flat, Palmdale, Santa Barbara, Santa Clara
Other Buyers	None	Westlands WD, San Luis Delta Mendota Water Authority	WWD, SLDMWA	None
Net Water Delivered (AF)	**46,955**	**62,987**	**106,092**	**12,986**
Losses (carriage water and other losses, AF)	**20,124**	**23,510**	**27,179**	**4,300**
Sources:	DWR 2018, Final State Water Project Delivery Capability Report 2017; DWR Bulletin 132-13 through Bulletin 132-16, Chapter 9; Restore the Delta. Note: WD = Water District; WA = Water Agency; WWD= Westlands Water District; SLDMWA = San Luis Delta-Mendota Water Authority.			

Agriculture to agriculture transfers amounted to 126.6 TAF in 2012 and were 177.7 in 2013. There were 24.6 TAF in 2013 transfers from urban to agriculture (none in 2012) from the Sacramento Valley to the San Joaquin Valley (Attachment 2). Total non-project transfers came to 188 TAF in 2012 and 268 TAF in 2013, larger amounts than shown in DWR's Bulletin 132 data reproduced in Table 2 above. Carriage water losses would have been correspondingly larger.

19 (cont.)

DWR reported later in 2015 to the DSC that it had provided nearly 306,000 acre-feet in temporary and long-term water transfers across the Delta during 2014, and projected another 113,000 acre-feet in 2015, both drought years.[18]

Regardless of data source, it appears the non-project water market is far larger than that of the internal Table A market at present. It does not seem likely that the Tunnels project will change that.

The eighteen water sellers upstream of the Delta in 2013 included[19]:

Butte Water District	Eastside Mutual Water Company
Cordua Irrigation District	Glenn-Colusa Irrigation District
Garden Highway Mutual Water Company	Pelger Mutual Water Company
Sacramento Suburban Water District	Pleasant Grove-Verona Mutual Water Company
Sutter Extension Water District	Reclamation District 1004
Tule Basin Farms LLC	Te Velde Trust
Byron Bethany Irrigation District	Placer County Water Agency
Anderson Cottonwood Irrigation District	Thermalito Water and Sewer District
Conaway Preservation Group	Merced Irrigation District

19 (cont.)

Other potential sellers in the cross-Delta water transfer market were identified in the 2014 environmental document by the San Luis Delta-Mendota Water Authority (SLDMWA).[20] Of course, transfers to the TCCA would not cross the Delta; but transfers to SLDMWA would. The following potential sellers appeared in these environmental documents in addition to most of those appearing in DWR's list of actual 2013 sellers.

Canal Farms	Reclamation District 108
Maxwell Irrigation District	River Garden Farms
Natomas Central Mutual Water Company	Roberts Ditch Irrigation Company
Princeton-Codora-Glenn Irrigation District	Sycamore Mutual Water Company
Provident Irrigation District	T&P Farms
Goose Club Farms and Teichert Aggregate	

[18] DWR, 2015. *Water Transfers and the Delta Plan: A Report to the Delta Stewardship Council*, September, p. 31, Table 1. Hereafter, DWR, *Water Transfers and the Delta Plan*. This report also discloses that the Bureau of Reclamation conveyed water 108,930 acre-feet in 2014, and a projected 162,500 acre-feet in 2015. Combined, they provided cross-Delta water transfers totaling 414,700 acre-feet in 2014, and projected another 275,000 acre-feet of such transfers in 2015. This source reports also that EBMUD conducted temporary water transfers in 2014 of 5,000 acre-feet and in 2015 25,000 acre-feet across the Delta through its Freeport regional diversion facility.
[19] DWR 2015, *Bulletin 132-14*, Table 9-4, p. 171.
[20] San Luis Delta Mendota Water Authority and U.S. Department of the Interior, Bureau of Reclamation, *2014 San Luis & Delta-Mendota Water Authority Water Transfers, California,* Tables 2-2 and 2-3, pp. 2-5 and 2-6, April. Accessible at https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=16681.

In all, there are at least twenty-nine willing sellers upstream of the Delta for purposes of executing water transfers, not including the Yuba County Water Agency, which engages in water selling under the framework of the Yuba River Accord.

These lists simply attest to the potential size and scope of cross-Delta water transfers as well as which senior water right holders participate in them.

DWR has done all in its power to keep the importance of non-project water transfers out of the public eye when it comes to justifying not only the present Tunnels project, but also the previous incarnation of it, the Bay Delta Conservation Plan (BDCP). Non-project water transfer facilitation was omitted as an important purpose of the Tunnels project in the Draft BDCP EIR/EIS (2013), its BDCP/California WaterFix Supplemental Draft EIR/Supplemental Draft EIS (2015), and the Final BDCP/California WaterFix EIR/EIS (2017). This omission did not prevent these environmental documents on the Tunnels project from acknowledging the robust role played by non-project water transfers in its planning and eventual operation.

The Tunnels project, however, is of great interest to those water agencies participating in this market. The project promises to eliminate losses[21] described in Table 1 above. DWR reported to the Delta Stewardship Council twice in 2015 on single-year water transfers when the Council was taking up such transfers as a policy matter. Losses in the Delta come mainly in the form of “carriage water.” As DWR stated in an internal memorandum it shared with the DSC in 2015, the 2008 and 2009 biological opinions limit the season during which water transfers may be accommodated to July through September. There is also engineered and permitted capacity of the Banks pumping plant. One additional factor was “carriage water”—

> the additional flow necessary to move transfer water across the Delta for export so as not to exceed the objectives contains in D-1641. DWR and USBR estimate carriage water based on annual hydrology, Project operations and regulatory restrictions among other operational considerations. Carriage water losses are applied to the quantity of transfer water made available above the Delta. This reduces the quantity of water that is actually exported from the Delta. The amount of carriage water required to export transfer water can vary significantly from year to year. In the past, the carriage water requirement has ranged from 20 to 35 percent, depending on that year’s specific conditions. In addition to carriage water losses, transfers through Project facilities may also be assessed aqueduct conveyance losses.[22]

19 (cont.)

[21] What is described as losses for transfer buyers represents elimination of a transaction cost imposed heretofore to protect the Delta.
[22] Croyle Report, p. 13.See also DWR, in consultation with the State Water Resources Control Board, *Water Transfers and the Delta Plan: A Report to the Delta Stewardship Council*, September 16, 2015, p. 21, Section 6.b. “Water Quality Issues in the Delta and Carriage Water Requirements.”

Carriage water is transfer water that south-of-Delta water buyers pay for but do not receive. In the current through-Delta situation, carriage water is needed to buttress the fresh water hydraulic barrier in the Delta mounted against the tidal salt waters of San Francisco Bay.[23] Routing transfer water through tunnels diverting beyond reach of the tidal zone would mean Sacramento River water quality would be preserved and no carriage water would be needed to accompany the water across the Delta; transfer water would move beneath the Delta. Not only would transfer export water quality be preserved, but there would be more water available to deliver by export; the 20 to 35 percent lost to the hydraulic barrier could be added unit for unit to the volume of the water transfer and the relative per unit dollar value of each cross-Delta water transfer would decrease (because more water would be provided in each transaction).

The Tunnels project would, its proponents presume, eliminate the need for carriage water. The Westlands Water District Board of Directors received a staff report for the meeting of September 19, 2017 that analyzed the merits of financial participation in the Tunnels project (referred to below as CWF). The staff report states that a reason to participate financially in the Tunnels project is that these Facilities would eliminate a "water loss of approximately 20—30%" to carriage water. Reducing carriage water losses would increase potential water transfer supplies crossing the Delta through the Tunnels project:

19 (cont.)

> The CWF would eliminate this loss, which would have a positive effect on the "through the meter cost" of transfer water from north-of-Delta agencies. In addition, the existence of the CWF would improve the opportunity to obtain transfer water from north-of-Delta sources and potentially expand the transfer window beyond the July through September period. The August 29, 2017 presentation by Terry Erlewine and Allison Febbo estimate that the mean increase in transfer capacity with CWF is approximately 915,000 acre-feet. In a dry year, the increase in transfer capacity with CWF would be approximately 1.135 MAF. The analysis presented by Mr. Erlewine and Ms. Febbo demonstrates that restored water supply and increased transfer capacity resulting from the CWF would aid Westlands' compliance with SGMA [Sustainable Groundwater Management Act].[24]

Westlands staff here describes a ***significant increase*** in transfer capacity attributable to the Tunnels project, not even merely maintaining capacity to export water transfers.

In late summer of 2017, Metropolitan Water District of Southern California (MWD) provided reasons for its support of the Tunnels project. MWD is a state water contractor with the largest Table A amount of any contractors within SWP. In one of its "white papers" issued that year, MWD stated that the Tunnels project would improve SWP and CVP export water quality through use of its "dual intake system" because Sacramento

[23] This addition to the freshwater barrier also contributes a portion of public trust resource protection via fresh water Delta outflow.
[24] Change Petition Proceeding, Exhibit RTD-1012, pp. 9-10.

River water quality in the vicinity of north Delta intake sites "is generally lower in salinity, organic carbon, and nitrates as compared to the San Joaquin River and south Delta."[25] Water quality is important to MWD for blending with poorer quality Colorado River Aqueduct supplies. According to MWD:

> To meet these blending goals, on average Metropolitan needs 950,000 acre-feet of SWP supplies. Without the water supply reliability improvements provided by the California WaterFix, Metropolitan will be less likely to meet this salinity goal.[26]

Like Westlands and Kern County, MWD informed its Board that The Tunnels project "would significantly increase the amount of available capacity to accommodate the movement of water transfers across the Delta and the SWP and CVP system."[27] States the MWD operations white paper, "California WaterFix would provide much greater capability to manage transfers."[28]

Available unused capacity in any regional or local publicly owned water conveyance facilities, including in the California Aqueduct, must be made available for bona fide transfers, provided fair compensation is paid.[29] Given this legal requirement in California Water Code section 1810, increasing conveyance capacity for cross-Delta water transfers during droughts would make it easier for the state and federal government to facilitate water transfers in drier years. Thus, it would be easier for south-of-Delta SWP and CVP water contractors to employ market forces to pay for and receive Sacramento Valley surface water and groundwater supplies for the benefit of south-of-Delta water contractors. And the cost allocation shares of the Draft AIP are critical to financing construction and operation of the Tunnels project.

19 (cont.)

The Tunnels project—and the cost allocation factors for Tunnels beneficiaries in the Draft AIP of the DEIR—create expectations expressed in state and federal water contractor policy documents, and staff analyses, that additional yield above and beyond SWP contract Table A amounts would be forthcoming from the Tunnels project. These expectations drive actions by these entities and Petitioners whose intended outcomes are contrary to the State Legislature's command to reduce reliance on the Delta.[30] MWD's Board voted to approve financial participation in the project on October 17, 2017. Kern County's Board voted to approve financial participation in the project on October 26, 2017.

20

[25] Change Petition Proceeding, Exhibit RTD-1007, p. 15. The "white paper" claims that relative to the No Action Alternative, the Tunnels project' operations would reduce levels of salinity in export water by 18 to 22 percent; of total dissolved solids by 17 to 22 percent; of bromide by 31 to 43 percent; of organic carbon by 2 to 11 percent; and of nitrates by 5 to 27 percent.
[26] Change Petition Proceeding, Exhibit RTD-1009, p. 5.
[27] *Id.*
[28] *Id.*
[29] Change Petition Proceeding, Exhibit SWRCB-102, p. 1-342:9-11; Water Code section 1810.
[30] Water Code section 85021.

In wet or above normal years, these expectations would be met through allocations to meet contractual (Table A) demands via each project's normal allocation process. In drier years, as indicated by BDCP water transfer modeling assumptions described herein, expectations of these and other SWP contractors would be fulfilled via market-based transfers to meet their Table A contractual demands as much as possible (the fifth and seventh delivery priorities of Article 12 of the SWP contracts).

The Tunnels project is intended to facilitate both more reliable contractual deliveries *and* a water transfer market that moves north-of-Delta willing sellers/senior water right holders' supplies through the Delta in exchange for monetary compensation. The only question in the long-term with a Tunnels project in place (from the standpoint of objectives, purpose, and need) would be when and under what project allocation conditions water from north of the Delta moves—under contract terms, or under market-based transfer activity. Market-based cross-Delta water transfers are an important part of DWR and SWP contractors' efforts to maintain, not reduce, Delta reliance for California's future water needs. The Tunnels project and the immediate Draft AIP of this DEIR therefore fail to comply with the Legislature's command that reduced Delta reliance for California's future water needs is statewide policy.[31]

20 (cont.)

Thus, the DEIR project objectives omit a third objective of the proposed project (that is, both the Tunnels project and the Draft AIP combined):

> Objective 3: To expand engineered physical capacity for conveying cross-Delta water transfers so that overall south-of-Delta water demands may be met or even increased, despite California's changing climate.

Consequently, it is misleading for the DEIR to state that, "The proposed project would not build new or modify existing SWP facilities nor change any of the PWA's [*sic*] Annual Table A amounts." We agree it would not change total Table A amount of the State Water Project, but the Draft AIP allows reallocation via exchanges and transfers of individual Table A contractor amounts, and provides direct financing responsibilities of the vast majority of state water contractors for the Tunnels project's construction, operation, and maintenance in the near and long terms. We also think it misleading, given the importance of market-based cross-Delta water transfers for which the Tunnels project would provide greater capacity, by the DEIR to state "The proposed project would not change the water supply delivered by the SWP as SWP water would continue to be delivered to the PWAs consistent with current contact terms, and all regulatory requirements." We have demonstrated in this letter that an unacknowledged objective is improperly omitted which calls for increased cross-Delta water transfers contrary to state policy requiring reduced Delta import reliance for California's future water needs.

21

[31] *Id.*

The DEIR fails to address environmental justice impact on Delta environmental justice communities, and California Indian tribes reliant on salmon stocks and migration.

By omitting the implicit third objective for cross-Delta water transfers and the integral role of the Draft AIP in financing construction and operation of the Tunnels project, the DEIR fails to acknowledge and address environmental justice impacts on Delta environmental justice communities and impacts to salmon runs that will affect California Indian Tribes that rely on salmon for vital nutrition and cultural continuation and survival. 22

See Attachment 3 to this letter, Restore the Delta's *Fate of the Delta Report*, Chapter 2.

The DEIR fails to acknowledge formation and existence of the joint powers authorities and bond financing validation suit that support implementation of the Tunnels project, and fails to disclose the relationship of the Draft AIP to the existence and roles of the two JPAs.

The newly formed Delta Conveyance Finance Authority (DCFA), a JPA for tunnels finance, began seeking funding from the Federal Environmental Protection Agency (EPA) Water Infrastructure, Finance, and Innovation Act (WIFIA) loan program for 49 percent of the $11 billion committed toward the total initial project costs of $16.8 billion in 2018. The DCFA plans to issue revenue bonds (on the strength of MWD's strong credit rating) and acquire WIFIA loans to pay back DWR for bonds that DWR will issue to continue project design, planning, and construction for the tunnels.

DCFA was formed in part to expedite tunnels project financing, since DWR has filed a validation action seeking a judicial confirmation of DWR's authority to issue revenue bonds for State Water Project facilities, including the tunnels project, California WaterFix. DCFA is "plan B" should the judge rule that DWR has no such authority, since MWD is cash-rich and has perhaps the largest single property tax base among California local governments to support its revenue bond issues. 23

Validation actions are common in agency financing matters. During the pendency of the validation action, the marketability of California WaterFix Revenue Bonds to private investors was likely to be affected. Thus, MWD as the voting member with majority control of the Delta Conveyance and Design Construction Authority (DCDCA) for the tunnels sought creation of the DCFA as an insurance measure in case funding would have to be pursued separately from DWR. Whether the DCFA pays back DWR for bonds or finances the project directly, it will exert final control over debt management for California WaterFix, with MWD having majority voting control over financial decisions.

The failure to disclose the role of the DCFA in the DEIR is a part of a continued effort by the State Water Contractors to hide the true costs and obligations for repayment for California WaterFix Revenue Bonds by State Water Project customers, particularly water ratepayers and property taxpayers within the Metropolitan Water District service

area. The failure to disclose the role of the DCFA and its financing plans for CA WaterFix is also a way to bury the piece-mealing of WaterFix as it hides activity undertaken in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies as defined under CEQA.

23 (cont.)

Restore the Delta's specific comments on the DEIR.

The vast majority of the specific impact discussions in this DEIR derive from the potential for land fallowing in the Sacramento Valley and the subsequent selling of water by senior water right holders there to become part of cross-Delta market-based water transfers. Some transfers will also likely originate south of the Delta to the extent that transfers and exchanges occur between state water contractors in this region. However, the DEIR fails to specify the extent to which water trades (exchanges and transfers) will occur north or south of the Delta, despite having internal data on all transfers that occur. This represents a failure to disclose data relevant to decision making, particularly as it pertains to how much water trading impacts on fallowing will occur north or south of the Delta.

24

On p. 5.3-8, Agriculture and Forest Resources, this section fails to mention changing water intensity of crops that will be affected by crop shifts resulting from water trading. There is no analysis of where agriculture impacts are expected to occur, whether in the Delta, the western San Joaquin Valley, or the Tulare Lake Basin regions. To what extent can dry farming be expected to occur as a response to water trading in these and perhaps other locations? How much fallowing will occur, and will land retirement be needed or utilized to address permanent changes wrought by greater water trading activity allowed by the Draft AIP? The DEIR is silent on these matters.

25

With greater fallowing, the DEIR's evaluation of air quality impacts anticipates that there will be an increase in windblown (aeolian) soil erosion and particulate matter exposures, mitigated only if the indeterminate fallowed lands are instead dry farmed. We found this analysis at times illogical—it seems to us that fallowed land cannot both be a cause and a mitigation for soil erosion air quality effects. Greater analytical specificity (without necessarily producing a "project level" of analysis) is needed to properly disclose the program level air quality impacts in this DEIR.

In the biological impacts section, the DEIR repeats the misleading statement that **"**The proposed project would not build new or modify existing SWP facilities nor change any of the PWA's [*sic*] Annual Table A amounts." Repetition of this misleading fails to improve its truthiness.

26

The biological impacts analysis also fails to analyze dry and drought year imputes of non-project, market-based cross-Delta water transfers resulting from financing, construction, and operation of the Tunnels project. In particular, the effects of removing carriage water via Tunnels operation on public trust resources (fish, ecosystems, recreation) is unexamined.

Regarding groundwater impacts, the DEIR throws up its hands, claiming the Draft AIP's effects are just too speculative—that "the extent, location, and timing of groundwater pumping associated with changes in transfers and exchanges implemented by PWAs are not known.Therefore, DWR cannot currently conclude that feasible mitigation measures will be implemented to avoid significant impacts in all cases."

DWR has one of the largest modeling divisions in the American West, comprised of modelers, engineers, hydrologists, software programmers, and other experts. They have economists on staff. Together with a consultant, they completed an 80,000 page environmental review on the California WaterFix/Bay Delta Conservation Plan project and applied dozens of models to analyzing Tunnels project impacts at least since 2012. For the Tunnels project's water rights change petition proceeding, DWR has produced a few dozen modeling scenarios that each aim at justifying the Tunnels project. Groundwater impacts were modeled, though not comprehensively. It is our conclusion that DWR preferred as a matter of environmental review strategy to avoid modeling potential groundwater impacts so as to avoid indicating potentially greater specificity in where those impacts would occur. We do appreciate that at least DWR has acknowledged that these impacts are significant and unavoidable, but this is also concerning to us since DWR is capable of much greater analytic insights at a program level than the department has chosen to disclose. 27

Regarding surface water hydrology and water quality impacts, the DEIR omits mention of water transfers and use of carriage water to help protect water quality in the estuarine habitat, by contributing flows that repel salt tidal water that might otherwise salinize transfer water. This is a serious omission to the DEIR's baseline and needs to be revised to reflect the reality of carriage water losses from tunnels operations in response to increased water trading. 28

The DEIR finds that cumulative impacts from the Draft AIP, in relation to the Tunnels project, the 2016 SWP Contract Extensions, the Monterey Amendments and Settlement Agreement of 2003, and Sustainable Groundwater Management Act implementation are significant and unavoidable with respect to groundwater levels and supplies. We think this is a reasonable finding, but again reflects DWR's withholding of analytic insights that it is otherwise capable of providing at a program level; like Bartleby the Scrivener, they would prefer not to. 29

We find DWR's growth inducement analysis misleading as well. It fails to account for the likelihood that in striving to make water trading more frequent, more common, and with the construction and operation of the Tunnels project, more reliable, that urban buyers of water would "harden" their demands for traded water, including nonproject, market-based cross-Delta water transfers and therefore be an inducement to urban and suburban growth in areas that seek to increase their reliance on such imports from and through the Delta. Not only is this contrary to state policy in the Water Code and Delta Reform Act, it represents a growth inducement impact that the DEIR and DWR fail to acknowledge and disclose. 30

Alternatives

In addition to our comments about the project description in the DEIR above omitting non-project cross-Delta water transfers as a purpose of the Tunnels project and the Draft AIP, the same issues are visible in the discussion of Alternatives, especially Alternative 2. This alternative highlights a serious omission throughout the rest of the DEIR—the role that Table A[32], Article 21[33], and Article 55[34] play in State Water Project water management and in the formulation of the purpose of the Tunnels project as reflected in the system's operation, management, and maintenance.

The Alternative 2 analysis begs a number of questions for disclosure:

- Which state water contractors cannot take Article 21 deliveries when they are actually available?
- Which state water contractors typically do take Article 21 water when available?

Reducing Table A amounts, as called for in Alternative 2, would make it more likely that Article 21 water availability would increase, facilitating more exchange and transfer opportunities among state water contractors. In addition to taking advantage of the contractors' sought-after "flexibility" for water management during the negotiations in the spring of 2016, the State Water Project would move closer to managing real, wet water, as opposed to the paper water that is now in the system. That "paper water" is measurable as the difference between total Table A contract amounts (e.g., approximately 4.17 million acre-feet) and the ten-year average reliable delivery level of about 2.5 to 2.6 million acre-feet (or about 60 percent of total Table A). There has been just one year in the 2007-2016 period that exceeded 3.3 million acre-feet of SWP deliveries. Reducing the Table A by 15 percent would still enable the SWP to capture 3.3 million acre-feet (approximately SWP Delta exports in 2011) in a wet year under Table A contract amounts. 31

Restore the Delta urges DWR to expand the analysis of Alternative 2 to examine scenarios of 10, 15, and 20 percent reductions in total Table A amounts, and describe the frequency with which Article 21 and Article 55 waters are delivered and/or traded when compared with current total Table A practices. If Table A reductions somehow creates distributional equity issues, as the DEIR hints at on page 7-11, then that should be disclosed and discussed, with potential mitigations offered. DWR should disclose which contractors are at such risk and what could be done via policy or engineering solutions (or both) to address such concerns.

Restore the Delta that reducing total contractual Table A amounts will encourage greater local water supply self-sufficiency efforts because it would be clearer exactly how much wet water each contractor can realistically expect from the SWP. It will also

[32] In the state water contract, existing sections 1(n) and 1(o) define Table A water:
[33] This article defines interruptible water service during wet conditions, rates to be charged for such water, and requires separate contracts for water contractors to receive interruptible water supplies.
[34] Article 55 defines how transportation of non-project water is handled in terms of aqueduct capacity, delivery priorities (Article 12(f)), and definition of rate calculations.

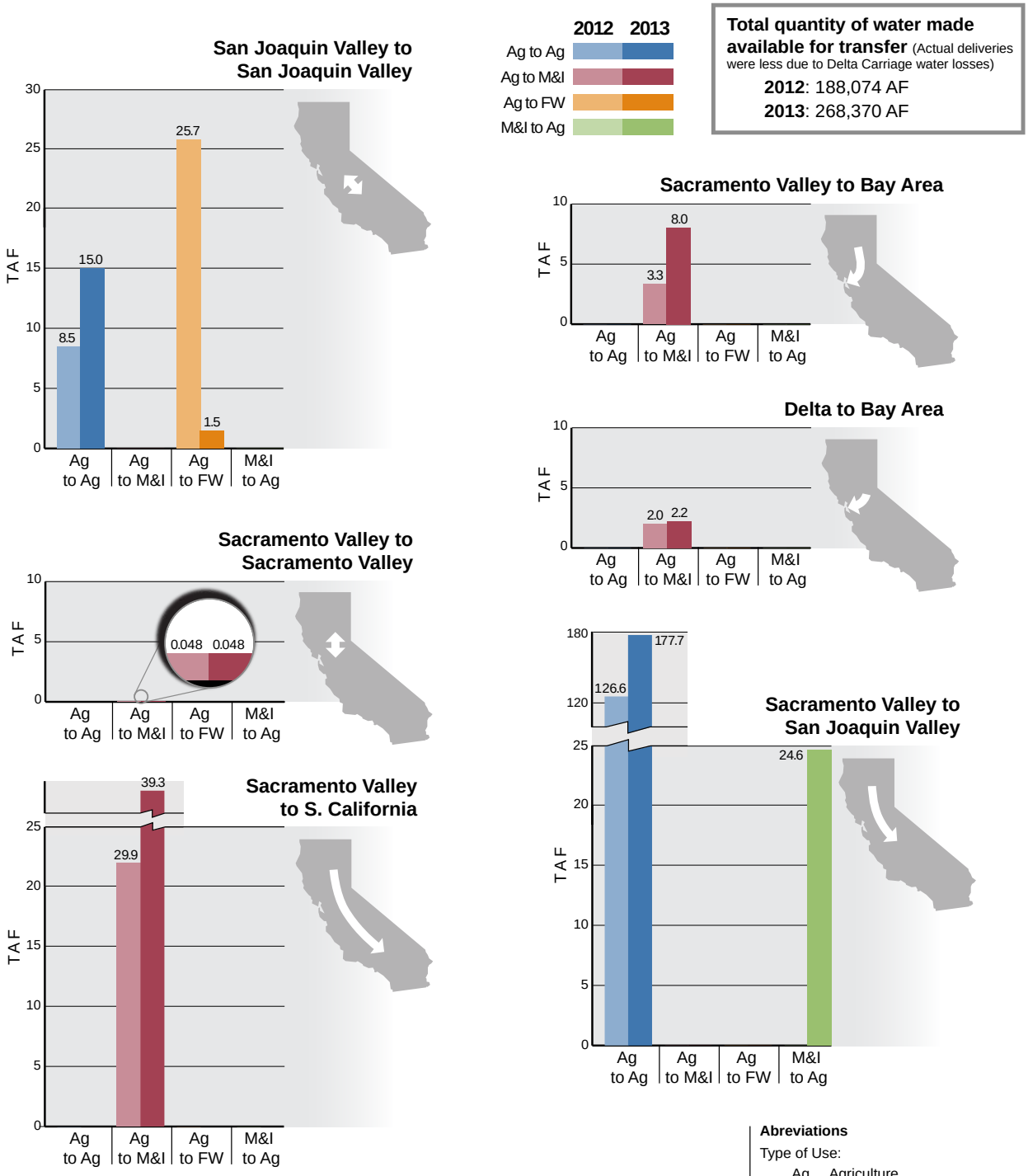
reduce the political pressure to continually expand SWP supplies and engineered capacity (that is, storage and conveyance capacity) that plagues the Delta and our state's water politics. And yet, it would have little to know effect on existing SWP financing to do this because Table A deliveries plus Article 21 water would still face the same charges. Hydrology determines the cost-efficiency—the cost in dollars per acre-foot of SWP water supply—each year.

31 (cont.)

2012/2013 Transfer Activity

January 28, 2014

Non-Project Water Transfers within the Sacramento/San Joaquin Watersheds



The figures above include transfers requiring the approval of the SWRCB, including Yuba accord transfers, as well as transfers of water diverted under pre-1914 water rights. Transfers and exchanges of SWP and CVP water are not included.Operational issues delayed the export of most transfer water made available from the Feather River in 2012 until 2013. For 2013, a portion of water transfers to certain CVP contractors was exported through Jones Pumping Plant in July. Water was moved during the transfer period of July-September. The total amount of water pumped through Banks Pumping Plant was 2.37 MAF in 2012 and 1.18 MAF in 2013. Data is preliminary.

Abreviations

Type of Use:

Ag	Agriculture
M&I	Municipal and Industrial
FW	Fish and Wildlife

Measurements:

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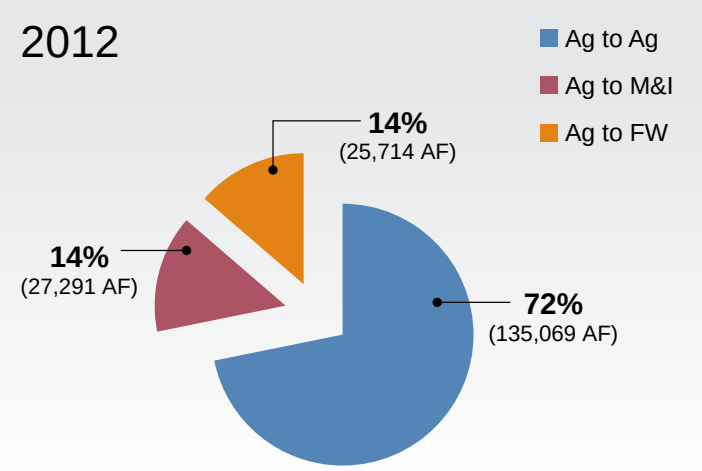
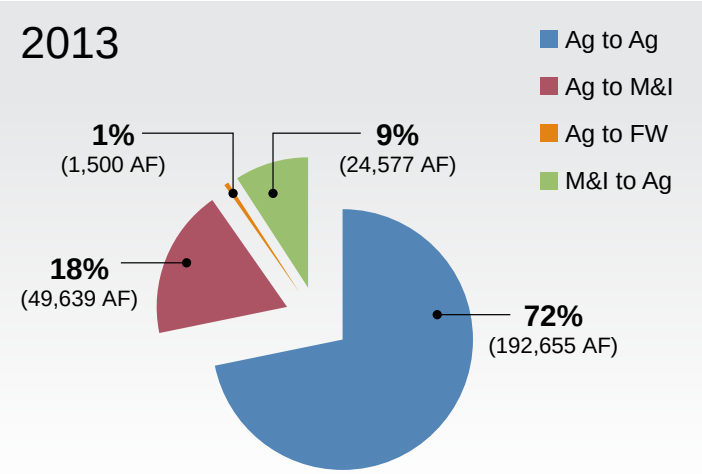
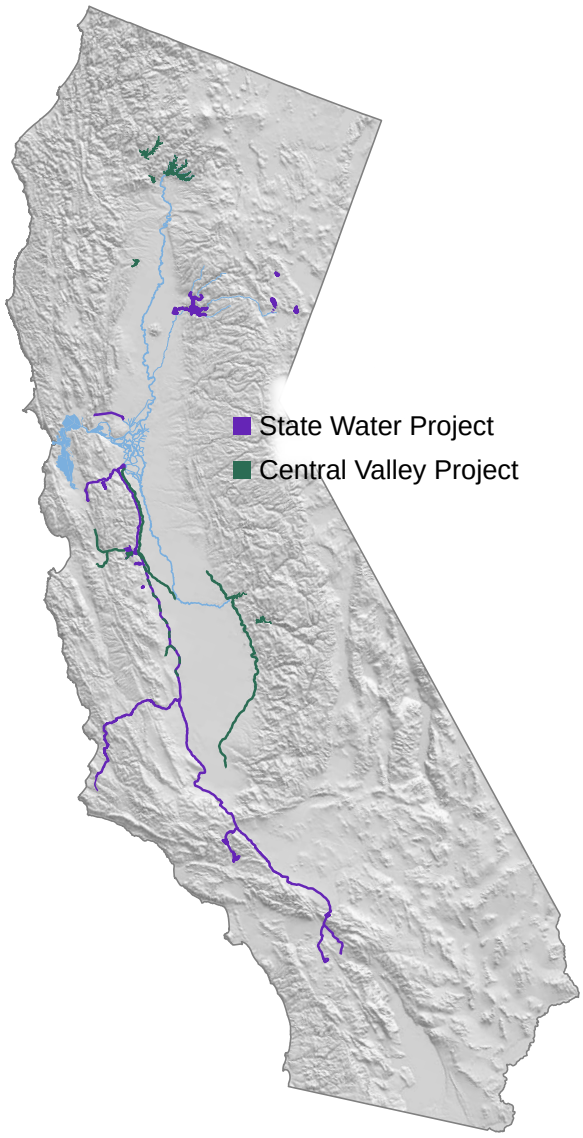


Total: 188,074 AF



Total: 268,370 AF



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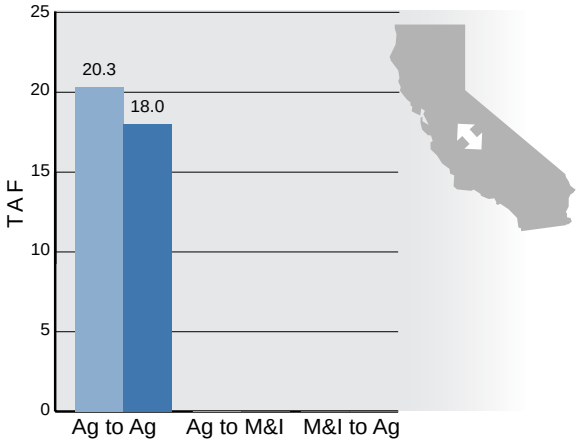
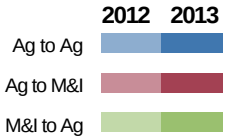
2012/2013 Transfer Activity

January 28, 2014

SWP/CVP Project Water Exchanges South of the Delta

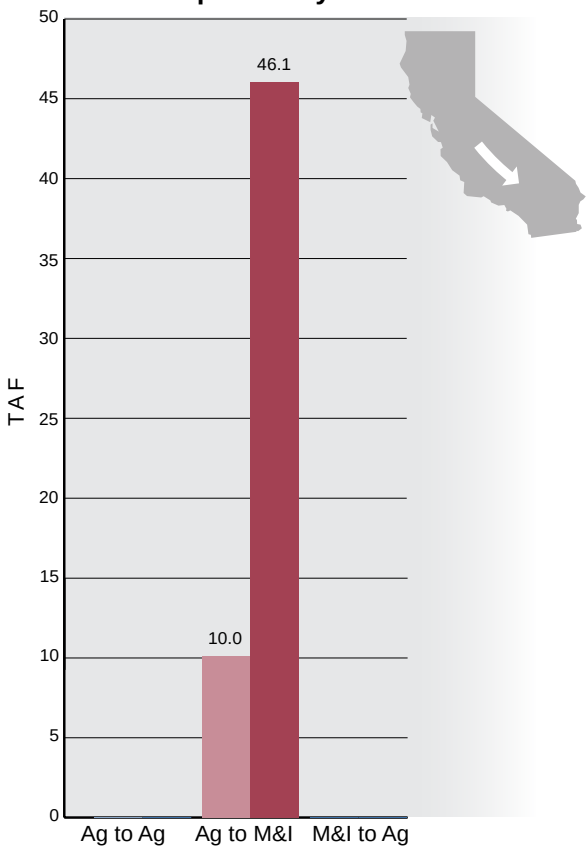
San Joaquin Valley to San Joaquin Valley



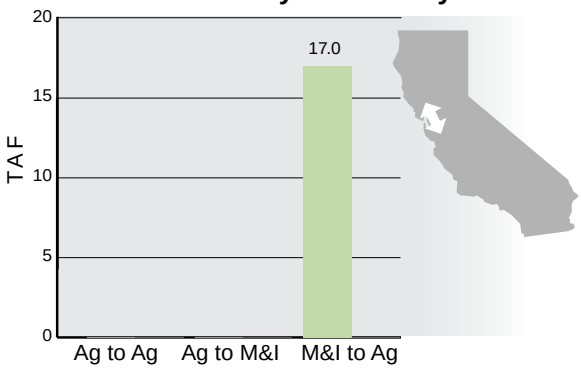


Total quantity of water made available for transfer:
2012: 47,420 AF
2013: 63,790 AF

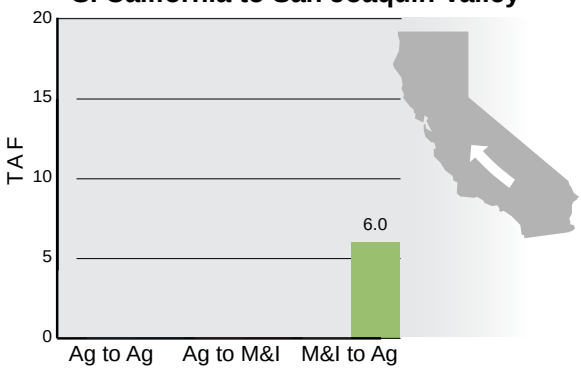
San Joaquin Valley to S. California



Bay Area to Bay Area



S. California to San Joaquin Valley



DWR and Reclamation filed petitions with the SWRCB to consolidate the SWP and CVP authorized places of use in 2012 and 2013 to improve the Projects' operational flexibility in delivering allocated Project supplies.
No additional water was diverted from the Delta as a result of the exchanges. The total amount of water pumped through Banks Pumping Plant was 2.37 MAF in 2012 and 1.18 MAF in 2013. Data is preliminary.

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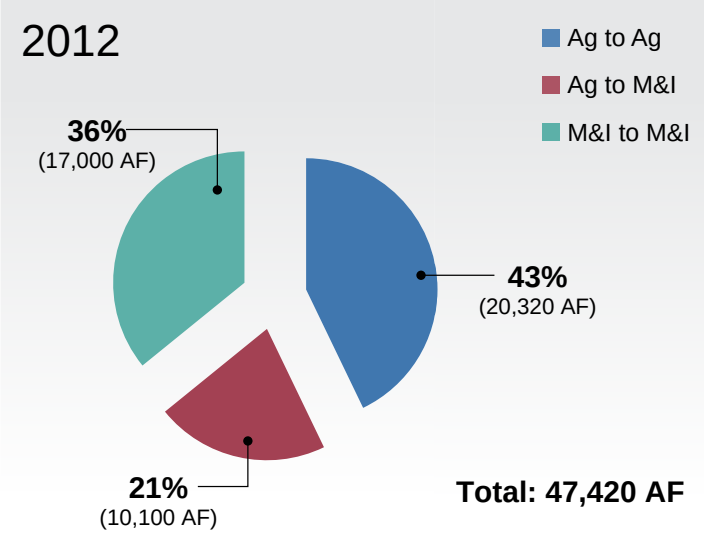

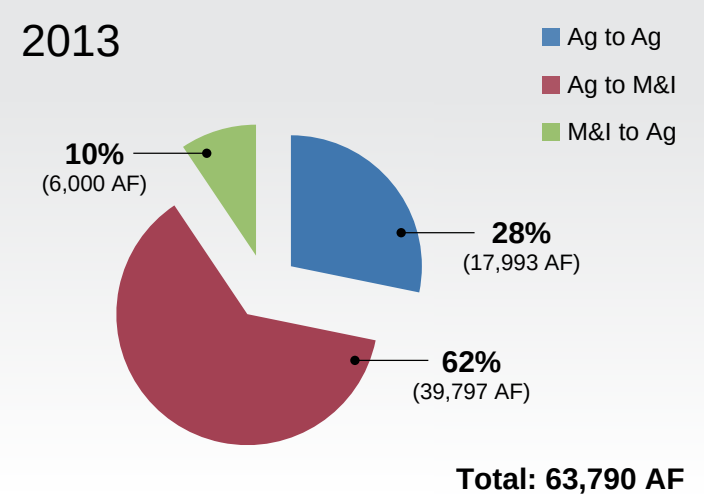

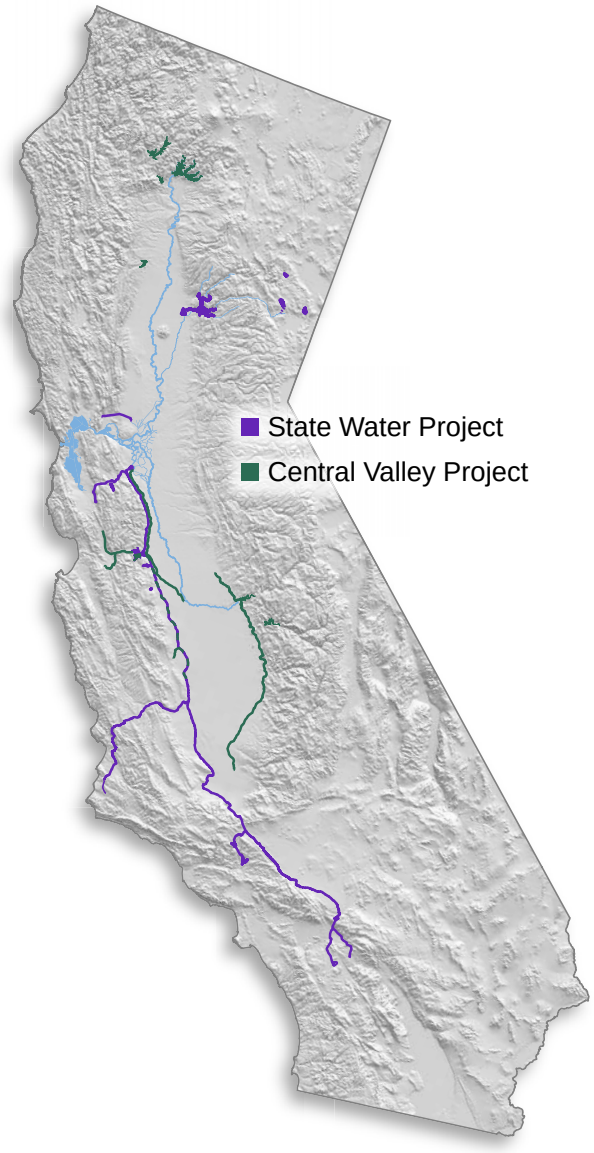

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PUBLIC HEARING

ON PROPOSED STATE WATER PROJECT WATER SUPPLY CONTRACT

AMENDMENTS FOR WATER MANAGEMENT AND CALIFORNIA WATERFIX

November 16, 2018

11:00 a.m.

1416 9th Street
Sacramento, California

Mandy M. Medina, CSR No. 11649

APPEARANCES

The Hearing Officer:

BRIAN HEILAND, California Department of Water Resources

Public Speakers:

(No public speakers.)

PUBLIC HEARING

ON PROPOSED STATE WATER PROJECT WATER SUPPLY CONTRACT AMENDMENTS FOR WATER MANAGEMENT AND CALIFORNIA WATERFIX

November 16, 2018 - 11:16 a.m.

THE HEARING OFFICER: Good morning, everyone, and welcome. My name is B.J. Heiland. I'm a principal engineer for the Department of Water Resources and we are here today to talk about the proposed State Water Project water supply contract amendments for water management and California WaterFix.

So there is a court reporter here that will be capturing everything we say and do here today. And as a quick FYI, there will be a second meeting that will be scheduled. There was an e-blast that was sent out to the same notification for this public hearing, so the date is still to be determined, but please stay tuned for that second meeting.

So the agenda for today is to go through the purpose of today's meeting, go through the background, go through the project objectives and project description, the environmental analysis, the CEQA process and next steps, and take any public comment.

So the purpose of today's meeting is to receive public comments on the Draft Environmental

Impact Report. Comments can be provided by either speaking at this meeting -- you can fill out a speaker card or comment form which are available -- and you can also provide written comments by mail or E-mail. And DWR will prepare written responses to all of the comments.

So a little bit of background. DWR owns and operates the State Water Project, which stores and delivers water to 29 state water contractors known as public water agencies.

In the 1960s, DWR entered into contracts with the PWAs to construct, operate and maintain facilities needed to provide water service. The contracts between DWR and the PWAs include water management provisions, including the transfer or exchange of State Water Project water between PWAs, and financial provisions on planning, construction, and operation and maintenance of State Water Project facilities.

A little bit of background. DWR and the PWAs agreed to enter into the process for amending the contracts to confirm and supplement certain provisions for several water management actions, including transfers and exchanges, and to address changes in financial provisions, related costs of California WaterFix.

DWR and the PWAs participated in 15 negotiation sessions between February and June of this past year. The negotiations were open, open to and attended by members of the public, and resulted in an Agreement in Principle on proposed changes to the contracts. And the public did have an opportunity to observe and comment.

The AIP describes, in general terms, amendments to the existing contracts related to water management actions to provide flexibility in water transfers of the State Water Project among PWAs, clarify terms of water exchanges of the State Water Project water among PWAs, and address the cost allocation for California WaterFix among PWAs.

The objectives, DWR and PWAs have a common interest to ensure efficient delivery of State Water Project water supplies and to ensure the State Water Project's financial integrity.

In order to address water management flexibility and to allocate costs for California WaterFix, DWR and the PWAs agreed to the following objectives: First of all, to supplement and clarify terms of the State Water Project water supply contract -- that will provide greater water management regarding transfers and exchanges of SWP water within

the SWP service area -- provide a fair and equitable approach for cost allocation of California WaterFix facilities to maintain SWP financial integrity.

For project description, plans to add, delete, modify, and clarify conditions and terms to the agreements for transfers and exchanges of SWP water between PWAs; also allows multiyear transfers of SWP water between PWAs that include terms developed by the PWAs to the agreements, including quantity, duration, and condensation, and that such transfers may be packaged in two or more transfer agreements between the same PWAs; also to clarify provisions related to the exchanges of SWP water between PWAs; also establish reporting requirements for transfers and exchanges of SWP water by PWAs; establish terms for transfer and exchange of stored SWP water/carryover water; establish California WaterFix facility allocation factors based on PWA participation percentages to be used for repayment of planning, construction, operation and maintenance costs associated with the California WaterFix; and to identify the methods of calculating costs and repayment of costs for California WaterFix.

Under the environmental analysis, the proposed project was found to have -- to result in no impact for the following resource topics: Hazards and hazardous

materials, noise, population, employment and housing, public services and recreation, transportation, surface water hydrology, water quality, utilities and service systems.

The proposed project would result in less than significant impacts for the following resource topics: Aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, energy, geology, soils and mineral resources, greenhouse gas emissions, land use and planning, tribal cultural resources, and water supply.

The proposed project was found to result in significant and unavoidable impacts for groundwater hydrology and water quality.

The alternatives that were considered or rejected include implement new water conservation and management provisions in the contracts and alternative cost recovery mechanisms.

And the following alternatives were identified as part of the Draft EIR: Alternative 1 was a no-project; Alternative 2 was reduction of Table A deliveries; Alternative 3 is reduced flexibility in water transfers and exchanges; Alternative 4 was more flexibility in water transfers and exchanges; Alternative 5, only agricultural to M&I transfers

allowed; and Alternative 6, transfers and exchanges only after implementation of California WaterFix.

And now the analysis came to Alternative 4 would result in similar impacts as the proposed project. Alternatives 1, 2, 3, 5 and 6 could result in impacts similar or greater than the proposed project. Alternatives 1 and 4 meet the project objectives. Alternative 4 would be the environmentally superior alternative.

So under the CEQA process, the next steps, DWR is the lead agency and the PWAs are responsible agencies. Public comment period on the NOP was from July 13th to August 13th. A scoping meeting was held on August 2nd of this year.

Public comment period for the Draft EIR is from October 26th through December 10th. We're here for today's public meeting, with a second meeting to be scheduled. Comments are due to DWR no later than 5:00 p.m. on December 10th.

DWR will consider all comments received and prepare written responses to comments to be included in the final EIR, and the final EIR will be prepared.

The DWR director will consider certifying the EIR and approving this project. The PWAs will use the EIR for their required CEQA action as responsible

agencies when making a determination whether to approve the project.

Amended statewide project contracts will be signed by DWR and individual PWAs after the CEQA process is complete.

Comments can be addressed to Cassandra Enos-Nobriga, who is an executive advisor of the State Water Project at DWR, at P.O. Box 942836, Sacramento. Comments can also be sent to the E-mail ContractAmendment_Comments@water.ca.gov.

Okay? Are there any comments or questions from the audience?

If there are no comments at this time, then we will close out this meeting.

Any objections? All right. That's it. Thank you very much.

(The proceedings adjourned at 11:27 a.m.)

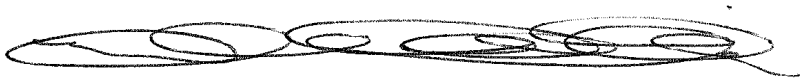
1

REPORTER'S CERTIFICATION

I, Mandy M. Medina, Certified Shorthand Reporter, in and for the State of California, do hereby certify:

That the foregoing was taken before me at the time and place herein set forth; that the testimony and proceedings were reported stenographically by me and later transcribed into typewriting under my direction; that the foregoing is a true record of the testimony and proceedings taken at that time.

IN WITNESS WHEREOF, I have subscribed my name this 26th day of November, 2018.



Mandy M. Medina, CSR No. 11649

In the Matter Of:

PROPOSED STATE WATER PROJECT WATER SUPPLY CONTRACT

PUBLIC HEARING

November 30, 2018

PUBLIC HEARING

ON PROPOSED STATE WATER PROJECT WATER SUPPLY CONTRACT

AMENDMENTS FOR WATER MANAGEMENT AND CALIFORNIA WATERFIX

November 30, 2018

9:30 a.m.

1416 9th Street
Sacramento, California

Mandy M. Medina, CSR No. 11649

APPEARANCES

The Hearing Officer:

BRIAN HEILAND, California Department of Water Resources

Also Present:

CASSANDRA ENOS-NOBRIGA, California Department of Water Resources

MARY AKENS, Staff Counsel, California Department of Water Resources

CATHERINE MCEFEE, Environmental Science Associates

Public Speakers:

Tim Stroshane
Roger Moore

PUBLIC HEARING

ON PROPOSED STATE WATER PROJECT WATER SUPPLY CONTRACT AMENDMENTS FOR WATER MANAGEMENT AND CALIFORNIA WATERFIX

November 30, 2018 - 9:40 a.m.

THE HEARING OFFICER: We'll go ahead and get started. So thank you for attending. It was nice to actually give a presentation to somebody in the audience tonight.

To Julie, our last hearing, we had only one person show up about an hour after the start. So we went through the process, but it is nice to actually have somebody that's interested. 1

So we'll get going here. I'm going to talk a little bit about the proposed State Water Project water supply contract amendments for water management and California WaterFix.

My name is B.G. Heiland. My full name is Brian. If you have any questions as we go through the presentation, as I go through the presentation, please let me know.

So anything else you want to say?

MS. MCEFEE: I think just that you can make comments today. You are going to go through all of that, right?

THE HEARING OFFICER: Sure, but --

MS. MCEFEE: You can make comments today or we have the comment forms there.

MR. STROSHANE: I brought some comments that I want to present.

THE HEARING OFFICER: Thank you.

So we'll talk through the purpose of the meeting, go through some background information, go over the project objectives and project description, environmental analysis, CEQA process and next steps, and we'll take any comments.

So the purpose of the meeting is to receive public comments on the draft environmental impact report. And as we mentioned, you fill out a speaker card, comment form, or we will take written comments, and we will prepare written responses to these comments.

A little bit of background. DWR owns and operates the State Water Project, which stores and delivers water to 29 state water contractors known as public water agencies. In the 1960s, DWR entered into contracts with the PWAs to construct, operate and maintain facilities needed to provide water service; and the contracts between DWR and the PWAs include both water management provisions, including the transfer or exchange of State Water Project water between PWAs, and

the financial provisions on planning, construction, and operation/maintenance of State Water Project facilities.

So a little bit of background. Both the DWR and PWAs agreed to enter into the process to amend the contracts to confirm and supplement certain provisions for several water management actions, including transfers and exchanges, and to address changes in the financial provisions related to the cost of California WaterFix.

DWR and PWAs have participated in 15 negotiations sessions between February and June of this past year. These negotiations were open to and attended by members of the public. And out of these public hearings, the negotiation sessions, an Agreement In Principle came to be on the proposed changes to the contracts, and the public had the opportunity to observe and comment at that time.

The Agreement In Principle, also known as the AIP, describes, in general terms, amendments to the existing contracts related to the water management actions to provide flexibility in water transfers on the SWP water among the PWAs, clarify terms on the water exchanges between the PWAs, and address cost allocation for the California WaterFix amongst the PWAs.

So DWR and the PWAs have a common interest to

ensure the efficient delivery of State Water Project water supplies and to ensure the financial integrity.

In order to address water management and flexibility and to allocate costs for the WaterFix, DWR and PWAs agree to the following objectives: To supplement and clarify terms of other SWP water supply contract; it will provide greater water management regarding transfers and exchanges of SWP water within the SWP service area; and will provide a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the State Water Project financial integrity; to add, delete, modify and clarify conditions and terms to the agreements for transfers and exchanges of SWP water between PWAs; allow multiyear transfers of SWP water between PWAs that includes terms developed by the PWAs to the agreements, including quantity, duration, and compensation; and that such transfers may be packaged in two or more transfer agreements between the same PWAs; to clarify provisions related to the exchanges of SWP water between the PWAs; to establish reporting requirements for these transfers and exchanges of SWP water by PWAs; to establish terms for the transfer and exchange of stored SWP water/carryover water; establish California WaterFix facilities allocation factors based on PWA participation

percentages to be used for repayment of the planning, construction, operation and maintenance costs associated with California WaterFix; identify methods of calculating costs and repayment of costs for California WaterFix.

So under the environmental analysis proposed, the project was found to result in no impact to the following resource topics: Hazards and hazardous materials, noise, population, employment and housing, public services and recreation, transportation, surface water hydrology, water quality, utilities and service systems.

The proposed project would result in less than significant impacts for the following resource topics: Aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, energy, geology, soils and mineral resources, greenhouse gas emissions, land use and planning, tribal cultural resources, and water supply.

The proposed project was found to result in significant and unavoidable impacts for the following resource topics: Groundwater hydrology and water quality.

Under the alternative analysis, the alternatives that were considered, but were rejected,

include implement new water conservation management provisions in the contracts, alternative cost recovery mechanisms.

The following alternatives were identified in the analysis for the draft: Alternative 1 was a no-project alternative; Alternative 2 was a reduction in Table A deliveries; Alternative 3 was reduce flexibility in water transfers and exchanges; Alternative 4 is more flexibility in water transfers and exchanges; Alternative 5 was only agricultural to M&I transfers allowed; Alternative 6 was transfers and exchanges only after implementation of California WaterFix.

Alternative 4 would result in similar impacts as proposed project. The other alternatives -- 1, 2, 3, 5 and 6 -- could result in similar or greater than the proposed project. Alternatives 1 and 4 meet the project objectives. Alternative 4 would be the environmentally superior alternative.

So CEQA process next steps, DWR is lead agency and the PWAs are the responsible agencies. Public comment period for the NOP was this past year from July 13th to August 13th, and a scoping meeting was held on August 2nd. Public comment period on this draft was open on the 26th of October and goes through December 10th. We had our public meeting this past --

or a couple of weeks ago on November 16th from 11:00 to 1:00, and we are having this presentation today, and comments are due no later than 5:00 p.m. on December 10th.

We will consider, DWR, all comments received and prepare written responses to the comments that will be included in the final EIR, and then the final EIR will be prepared after we address those comments.

The DWR director will consider certifying the EIR and approving the project. The PWAs will then use this EIR for their required CEQA action as responsible agencies when making a determination whether or not to approve the project.

The amended State Water Project contracts will be signed by DWR and individual PWAs after the CEQA process is complete.

The comments can be addressed to Cassandra Enos-Nobriga, and I'll leave that up there if you want to copy that down.

MR. STROSHANE: Is that in the --

THE HEARING OFFICER: Is that in the notice?

MR. STROSHANE: -- notice?

MS. MCEFEE: This presentation is posted on the website as well.

MR. STROSHANE: Oh, is it?

MS. MCEFEE: Yeah. I saw you copiously taking notes.

MR. STROSHANE: No, no, I took a few --

MS. MCEFEE: I just wanted to let you know --

MR. STROSHANE: -- but I appreciate knowing that it will be on the web.

THE HEARING OFFICER: Do you want this on the record?

(Off the record.)

THE HEARING OFFICER: So with that, that's the end of our presentation. If there are comments that you would like to walk through or if you want to hand us, however you would like to provide your comments.

MR. STROSHANE: I will provide them orally.

THE HEARING OFFICER: Okay.

MR. STROSHANE: I get to use a script, but --

THE HEARING OFFICER: Okay.

MR. STROSHANE: And I have a couple of questions about this process.

MS. MCEFEE: So if you can provide her your name and --

MR. STROSHANE: Yes. Are you the court reporter then?

THE REPORTER: Yes.

MR. STROSHANE: My name is Tim Stroshane,

S-t-r-o-s-h-a-n-e. And I'll just go ahead and -- since that's how I start my presentation.

I am a policy analyst with Restore the Delta. I personally attended many of the public negotiation meetings that were described in your presentation in the first half of this year that led to issuance of this draft EIR.

First, we at Restore the Delta thank you for adding today's meeting to the process for this EIR, but we find it typically disappointing and unreasonable that the Department of Resource -- the Department of Water Resources failed to extend the comment period at least 60 days. Many other potential commenters who are otherwise engaged in responding and recovering from the Camp Fire disaster need additional time to prepare their comments. I freely, but sanctly observe that, in keeping to your schedule, the Department is not letting a good crisis go to waste. 2

The EIR tries to escape responsibility for the proposed contract amendments for construction of the California WaterFix. Construction of the tunnels depends crucially on the cost allocations for the tunnels project in these contract amendments. You cannot have the one without the other. 3

The project is unlawfully segmented or

piecemealed under CEQA. It is one unified project. Contract extensions are needed to finance the project, they are needed to decompress financing terms, and then there is the construction of the project itself.

The draft EIR is inadequate for unlawfully focusing on just these contract amendments to the exclusion of the other two components.

Next, the draft EIR acknowledges the coequal goals of the Delta Reform Act of 2009, but fails to disclose and analyze the contract amendments relationship to reducing reliance on the Delta for California's future water needs.

My testimony for RTD and San Joaquin County during the tunnels water rights hearings earlier this year and in previous years documents numerous assertions by your agency, the Metropolitan Water District of Southern California, the Kern County Water Agency, and Westlands Water District, that the project's increase of conveyance capacity across the Delta would at least maintain deliveries and increase water transfer opportunities in flagrant violation of State policy to reduce Delta import reliance.

Finally, the draft EIR continues DWR's traditional neglect of the tunnels project's environmental justice issues. In this instance, the

3 (cont.)

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cost allocation components of the proposed contract amendments will result in environmental justice impacts that RTD itemized in our testimony to the State Water Board and in comments that we had made on previous environmental documents.

Thank you for the opportunity to comment.

THE HEARING OFFICER: Okay. Do you have any comments that you would like to provide to us at all?

MR. MOORE: Sure. Am I correct in understanding that the comment deadline remains December 10th?

THE HEARING OFFICER: Yes.

MR. MOORE: Okay. I'll just say a few things now. Thank you for the opportunity.

THE HEARING OFFICER: You need to introduce yourself for our court reporter.

(Interruption by the Reporter.)

MR. MOORE: My name is Roger Moore, M-o-o-r-e. I am an attorney from Oakland and have studied, analyzed, negotiated, and sometimes litigated issues relating to this State Water Project contracts for the last generation or so.

And I first want to protest the continuation of the December 10th comment deadline in light of the modest and reasonable request for an extension provided

5 (cont.)

6

by a constituent from the AquAlliance based in Butte County. I think it's no secret that people in communities in that part of the state have long had grave concerns about DWR's administration of the projects and understanding of the contracts. It's a matter of great public importance to them how these contract amendments are addressed. And it is -- given the current emergency due to the Camp Fire and related concerns, it is kind of shocking and outrageous not to honor the modest request for an extension that was requested in that letter of 45 days. So please reconsider. Do the right thing and do not be the Grinch that stole CEQA here. It will make everything more complicated in the future if you don't make that modest accommodation. 6 (cont.)

Second, I would echo the concerns very eloquently raised by Mr. Stroshane just now and in these scoping comments of the Plumas County Flood Control and Water Conservation District. I won't repeat everything that was said, but a key issue here is the piecemealing or segmentation of the State Water Project water supply themed contract amendments, the one that's the subject of this process, from the separate and, we think, very deeply mislabeled set of water supply contract extension amendments that are currently on an earlier CEQA track 7

and have been the subject of, just recently, certification of a final EIR, but not issuance of the Notice of Determination.

The interconnection between those two sets of contract amendments and also the underlying WaterFix project that is linked in them both is a matter of great public concern. The record here needs to include the complete oral and written testimony from two legislative hearings dealing with the contract extension amendments that occurred this summer, the second one on September 11th before the Joint Legislative Budget Committee. And I would -- it's important to have the full record of letters submitted to the Committee and sent to DWR in connection with that process as well as the written and oral testimony there. And I particularly refer to my testimony at that hearing, that of Rachael Ehlers from the Legislative Accounting Office, and the remarks of Ms. Nemeth at the meeting, and several representatives of the State Water Project contractors.

7 (cont.)

The content at that hearing and the background set of documents, the staff report accompanying those documents provides powerful evidence that explodes the myth that this CEQA proceeding is the only one dealing with contract amendments that are directly linked to

WaterFix.

In fact, as Ms. Ehlers pointed out at the September 11th hearing, while there may be other approvals needed for WaterFix to be constructed and implemented, the contract extension amendments are, in fact, an indispensable part of that process, because they would remove obstacles that otherwise would exist in the current State Water Project contracts, both the timing limitations and the facilities limitations in current Article 1 (hh) of the State Water Project contracts that would be -- that are proposed for removal as part of the contract extension amendments.

There is a very disturbing bit of sleight of hand here, because without those changes, DWR has no authority to use revenue bonds for WaterFix. And so I would urge you to reconsider what we consider the unlawful separation of the environmental review processes between the two to avoid what otherwise might be an irreparable legal error. It is important for DWR to not move forward with the Notice of Determination on the contract extension amendments and to consider those amendments in tandem with the ones that are being considered here.

THE HEARING OFFICER: All right. Thank you, Roger. Thank you, Tim.

7 (cont.)

MR. STROSHANE: So I have a question and it actually relates to the last remark that Roger had, which had to do with the contract extension, in other words, the 2016 final EIR that was just recently certified.

We are interested to know if the Department has a time line for when it expects to issue a Notice of Determination on that EIR -- on that EIR and move forward based on it with contract amendments.

Do you have a sense of time line?

MS. AKENS: That's outside the scope of this hearing on contract amendment, so we don't have that information for you. 8

MR. STROSHANE: Okay. Is that something that you could provide, however? Is there some -- in other words, we're asking the Department if there is something -- I understand it's beyond the scope of this process, but it's related, and we would like to get an answer, if we could.

THE HEARING OFFICER: Let me look into that and you have got my -- I can give you my business card to follow up.

MR. STROSHANE: That sounds great. Thank you, yeah.

Oh, there was another question I had and it

relates to this to some degree. Is there a time line envisioned by the Department within this process for when the contract -- I understand that it's kind of -- you're probably thinking of it sequentially, that the 2016 contract extensions have to be put into the contracts, and then the California WaterFix and water management contract amendments have to be put in. Are they going to be done sequentially, or are they going to be done all of a piece?

THE HEARING OFFICER: So with that, I mean, it depends upon the timing. We are moving forward with making the changes on the recommendations or out of the AIP right now, but I am not exactly sure. It all depends on the timing for the contract extensions.

MR. STROSHANE: When you say the changes, are you referring to what -- what would be like a strikeout, redlined kind of presentation of the document before -- for all of the PWAs to consider as part of the outcome of the AIP?

THE HEARING OFFICER: We'll take that into consideration. I have to check with our attorneys to see what we have provided in the past during a process like this.

MR. STROSHANE: But there is no time line at this point for -- that you are aware of.

8 (cont.)

THE HEARING OFFICER: Well, the time line is to try to move forward through the normal process with the CEQA aspect and updating the contracts, so -- but we can't finish making the contract -- the changes to the contracts until we finish the CEQA process.

MR. STROSHANE: And there is no definite, like, we're thinking probably August of 2019 or anything like that? That's a hypothetical.

THE HEARING OFFICER: I would say at some point next year. You know, I don't have -- you know, it's hard to kind of pin that down. But, you know, at some point next year, yes.

MR. MOORE: Can you provide any assurance that DWR is not going to proceed with executing contract extension amendments this year?

MS. AKENS: The contract extension project is outside of the scope of this hearing. This hearing is to obtain public comment on contract amendment, so we don't have answers for you for contract extension.

MR. MOORE: I understand your perspective --

MS. AKENS: Thank you.

MR. MOORE: -- that this issue of the contract extension amendments is outside the scope of the environmental review of the water supply contract amendments, but I trust you are aware -- I am asking if

8 (cont.)

9

you are aware -- that Plumas County, in its scoping comments, expressly raised the subject of piecemealing or segmentation, which necessarily requires consideration of the relationship between these two sets of contract amendments. I assume you're aware of that?

MS. AKENS: Well, thank you, Roger. We will take your comment and make sure it's part of this administrative record.

MR. MOORE: Thank you.

MR. STROSHANE: On the issuance of the final EIR on this, is there a time line? Do you have a scheduled goal of, say, March or February?

THE HEARING OFFICER: Springtime next year.

MR. STROSHANE: Springtime? Okay. Thank you.

THE HEARING OFFICER: You're welcome. If there aren't any other questions or comments?

MR. MOORE: I appreciate you providing that useful information about what you're expecting as far as the time frame for the final. What I'm wondering is, are there particular other things that DWR is concerned about that are behind the desire to complete by March? Are there other things going on that makes it important for DWR for any reason to keep to that particular time line?

THE HEARING OFFICER: It's just a matter of --

9 (cont.)

10

I mean, I have no immediate concerns outside of staff time needed to go through and make contract updates, and then go through the CEQA process.

MR. STROSHANE: These questions are coming from a concern that construction might begin on Bouldin Island, for example, as soon as possible. We have been hearing rumors about that and we are very concerned the process -- these processes aren't even done and construction would begin. 11

So are you aware of any construction plans that either DWR or Metropolitan Water District, which owns Bouldin Island, are expecting to undertake at this point?

THE HEARING OFFICER: I am not aware of that. I would have to defer to the WaterFix team for those kind of details. I don't have any immediate knowledge of that.

MR. STROSHANE: Okay.

THE HEARING OFFICER: All right. So we will keep this meeting open until 10:30 for anyone else that comes in for public comments. And if you have any other additional items you want to ask or make us aware of, please let us know.

MR. MOORE: I want to apologize for having to come in late from my --

(Interruption by the Reporter.)
MS. MCEFEE: We're on the record still, right? You said you left the meeting open?
THE HEARING OFFICER: The meeting is open.
MR. MOORE: What is your name -- and I'm sorry -- your colleague to the left of you as well?
THE HEARING OFFICER: My name is B.G. Heiland, H-e-i-l-a-n-d, principle engineer. And to my left is --
MS. AKENS: Hi, Roger. Mary Akens.
MR. MOORE: I thought I recognized you. I wanted to make sure.
MS. AKENS: Office of the Chief Counsel.
MR. MOORE: Thank you very much.
MR. STROSHANE: Is that A-k-e-n-s?
MS. AKENS: A-k-e-n-s.
MR. STROSHANE: A-k-e-n-s. Thank you.
And are you Cassandra?
MS. ENOS-NOBRIGA: Yes.
MR. STROSHANE: I think I've seen a picture of you somewhere.
(Interruption by the Reporter.)
THE HEARING OFFICER: We'll stay on the record until 10:30 just in case people come.
MS. MCEFEE: Or you can take it off and put it back on.

THE HEARING OFFICER: Let's take it off.

(Off the record.)

THE HEARING OFFICER: Open back up the record.

MR. MOORE: As you likely gathered, the letter requesting a 45-day extension on the comment deadline was the November 15th, 2018, letter sent by Barbara Vlamis, V-l-a-m-i-s, of AquAlliance.

And what I'm not aware of, and I wonder if you can clarify, if you know, is whether there was any written response or other communication with her in direct response to that request.

THE HEARING OFFICER: Not that I'm aware of. You? No, not at this time, no.

MR. MOORE: Thank you.

MR. STROSHANE: Let's keep this on the record just a moment longer so that I can also add my experience on that; and that was that I E-mailed Cassandra Enos-Nobriga initially to -- also, I think it was on the 15th -- to request the extension. And the next morning, she did reply to me via E-mail with -- actually, it was more -- it wasn't specifically to me, but it was a written E-mail that announced the changes that you have adopted.

We also had a phone conversation where you explained that information to me. And I want to say

that I appreciate your efforts to talk to me at that crucial moment early in the morning on Friday so that we could iron that out.

MS. ENOS-NOBRIGA: Thank you.

THE HEARING OFFICER: We'll close it back out.

(Off the record.)

THE HEARING OFFICER: I'll hereby close the meeting.

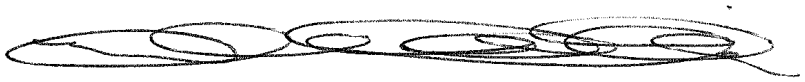
(The proceedings adjourned at 10:30 a.m.)

REPORTER'S CERTIFICATION

I, Mandy M. Medina, Certified Shorthand Reporter, in and for the State of California, do hereby certify:

That the foregoing was taken before me at the time and place herein set forth; that the testimony and proceedings were reported stenographically by me and later transcribed into typewriting under my direction; that the foregoing is a true record of the testimony and proceedings taken at that time.

IN WITNESS WHEREOF, I have subscribed my name this 8th day of December, 2018.



Mandy M. Medina, CSR No. 11649

DELTA STEWARDSHIP COUNCIL
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June 1, 2020

Brian "BG" Heiland, Principal Engineer
State Water Project, Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Via email: WMTAmendment@water.ca.gov

RE: Comments on the Partially Recirculated Draft Environmental Impact Report for the State Water Project Water Supply Contract Amendments for Water Management, SCH# 2018072033

Dear Brian Heiland:

Thank you for the opportunity to comment on the Partially Recirculated Draft Environmental Impact Report (PRDEIR) for the State Water Project Water Supply Contract Amendments for Water Management (project). The Delta Stewardship Council (Council) recognizes the Department of Water Resources' (DWR) objective to supplement and clarify terms of the State Water Project water supply contract (SWP Contract) that will provide greater flexibility in water management regarding transfers and exchanges of State Water Project (SWP) water supplies within the SWP service area consistent with applicable laws, contractual obligations, and agreements. As noted in the PRDEIR (p. ES-4), the project would add, delete, and modify provisions of the SWP Contract to meet these objectives. The project would not build new or modify existing SWP facilities, would not change any of the Public Water Agencies (PWA) Annual Table A amounts, and would not change the overall amount of water delivered through the Delta by the SWP.

1

The Council is an independent State of California agency established by the Sacramento-San Joaquin Delta Reform Act of 2009 (SBX7 1; Delta Reform Act (Wat. Code, §§ 85000 et seq.)). As stated in the Delta Reform Act, the State has coequal goals for the Delta: providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place (Wat. Code, § 85054). The Council is charged with furthering California's coequal goals for the Delta through the adoption and implementation of the Delta Plan.

Through the Delta Reform Act, the Council was granted specific regulatory and appellate authority over certain actions that take place in whole or in part in the Delta and Suisun Marsh, which are referred to as "covered actions". A state or local agency that proposes to undertake a covered action is required to prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with the Delta Plan and submit that certification to the Council prior to implementation of the project (Wat. Code, § 85225).

Based on the project location (PRDEIR, p. 4-1) and scope, the project appears to meet the definition of a covered action. As defined in Water Code section 85057.5 subdivision (a), a covered action is a plan, program, or project as defined pursuant to Section 21065 of the Public Resources Code (CEQA statute) that meets all of the following conditions:

1. Will occur, in whole or in part, within the boundaries of the Delta or Suisun Marsh;
2. Will be carried out, approved, or funded by a state or a local public agency;
3. Is covered by one of the provisions of the Delta Plan; and
4. Will have a significant impact on achievement of one or both of the coequal goals or the implementation of government-sponsored flood control programs to reduce risks to people, property, and State interests in the Delta.

DWR has defined the project as a program subject to CEQA. The project further appears to meet the conditions for a covered action because:

1. SWP water delivery facilities that would be operated to fulfill the amended SWP contracts are located in part within the boundary of the Delta.
2. The project would be carried out and approved by DWR, a state public agency.
3. The PRDEIR describes project activities covered by Delta Plan policies, as described below; and
4. The PRDEIR describes project activities that may have a significant positive or negative impact on providing a more reliable water supply for California.

As noted above, the state or local agency approving, funding, or carrying out the project must determine if the project is a covered action, and if so, submit a certification of consistency with the Delta Plan to the Council. The certification is subject to appeal before the Council as set forth in Water Code section 85225.10.

In the following section, we describe Delta Plan regulatory policies that may apply to the project, based on information provided in the PRDEIR[1]. This information is offered to assist DWR in preparing certified environmental documents for the project that can be used to support a certification of consistency with the Delta Plan.

1 (cont.)

[1] The Delta Plan policies identified in this letter are those Council staff has identified as relevant to the project based on information provided in the PRDEIR. However, DWR should determine the applicability and consistency of all Delta Plan regulatory policies in a certification of consistency for the project.

Detailed Findings to Establish Consistency with the Delta Plan

Delta Plan General Policy **G P1** (Cal. Code Regs., tit. 23, § 5002) specifies what must be addressed in a certification of consistency filed by a state or local agency with regard to a covered action. The certification of consistency must include detailed findings that address the following subsection:

> **Adaptive Management**
>
> Delta Plan Policy **G P1(b)(4)** (Cal. Code Regs., tit. 23, § 5002 (b)(3)) requires that ecosystem restoration and water management covered actions include adequate provisions, appropriate to scope of the action, to assure continued implementation of adaptive management. This requirement is satisfied through (1) an adaptive management plan that describes the approach to be taken consistent with the adaptive management framework described in Appendix 1B of the Delta Plan (http://www.deltacouncil.ca.gov/pdf/delta-plan/2015-appendix-1b.pdf), and (2) documentation of access to adequate resources and delineated authority for the implementation of the proposed adaptive management process.
>
> Adaptive management is required for the project given its water management components. Council staff understand that an adaptive management plan is not available as part of the PRDEIR. An adaptive management plan consistent with the framework referenced above will be required as part of a certification of consistency with the Delta Plan for the project. Council staff in the Delta Science Program are available to provide early consultation on adaptive management upon request.

2

Reduce Reliance on the Delta through Improved Regional Water Self-Reliance

Delta Plan Policy **WR P1** (Cal. Code Regs, tit. 23, § 5003) provides that "[w]ater shall not be exported from, transferred through, or used in the Delta" if three factors apply, as set forth in subdivisions (a)(1), (a)(2), and (a)(3):

> (a)(1). One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);
> (a)(2). That failure has significantly caused the need for the export, transfer, or use; and
> (a)(3). The export, transfer, or use would have a significant adverse environmental impact in the Delta.

3

The PRDEIR identifies that the expected increase in groundwater pumping associated with the project could substantially deplete groundwater supplies and could result in subsidence in some of the study area. The PRDEIR identifies these as significant and unavoidable impacts after mitigation (PRDEIR, p. ES-12). In the Final EIR, DWR should identify if these impacts would be expected to occur in the Delta as described in subsection (a)(3) above. If significant

unavoidable impacts to groundwater would occur in the Delta with implementation of the project, the certification of consistency should address WR P1 and include documentation relative to all three subsections above.

3 (cont.)

Additionally, because this project provides additional flexibility for future water transfers and exchanges by PWAs, WR P1 requirements, including subdivision (a)(1), may apply to future transfers and exchanges that would move water through and result in a significant impact in the Delta. WR P1 subdivision (a)(1) provides that a project may not proceed if one or more water suppliers that would receive water as a result of the project have failed to satisfy all of the requirements of subdivision (c)(1). Fulfilling these requirements includes describing how all water suppliers that would receive water as a result of the project have adequately contributed to reduced reliance on the Delta and improved regional self-reliance by:

(1) completing a current Urban or Agricultural Water Management Plan which has been reviewed by DWR for compliance with applicable requirements of the Water Code;
(2) identifying, evaluating, and commencing implementation activities identified in a plan that are locally cost effective and technically feasible, which reduce reliance on the Delta; and
(3) including within the plan the expected outcome for measurable reductions in Delta reliance and improvement in regional self-reliance. (emphasis added)

4

DWR should alert PWAs proposing to undertake a future multi-year water transfer or exchange project that would move water through the Delta of the legal requirement to submit a certification of consistency with the Delta Plan to the Council. Such a certification would need to demonstrate consistency with WR P1 by meeting the requirements described above.

5

Transparency in Water Contracting

Delta Plan Policy **WR P2** (23 CCR §5004) requires proposed actions which engage in contracting for the SWP and/or the Central Valley Project (CVP) be publicly transparent in a manner consistent with applicable DWR and Bureau of Reclamation policies, respectively.

The Council recognizes that DWR has engaged in a multi-year, facilitated public process to negotiate an Agreement in Principle (AIP) with the PWAs for the contract amendments proposed for this project. The Council recommends that DWR's certification of consistency for this project describe the process in detail, including records of public notice and summaries of public negotiation meetings, and documenting how DWR followed its applicable guidelines (03-09 and/or 03-10 (each dated July 3, 2003)), included as Delta Plan Appendix 2A[2].

6

[2] Delta Plan Appendix 2A is available on request from archives@deltacouncil.ca.gov.

Water Management and Efficiency

In addition to regulatory policies applicable to covered actions, the Delta Plan includes non-regulatory recommendations for actions to be taken by the Council and other agencies to support achieving California's coequal goals for the Delta. Specifically, Delta Plan Recommendation **WR R2** states that:

> "[DWR] should include a provision in all [SWP] contracts, contract amendments, contract renewals, and water transfer agreements that requires the implementation of all State water efficiency and water management laws, goals, and regulations, including compliance with Water Code section 85021[3]."

The Council views the contract amendment process as an ideal venue for DWR to implement WR R2 by requiring PWAs to meet the requirements set forth in California law for WR P1 (Cal. Code Regs, tit. 23, § 5003). We urge DWR to consider adding additional terms to both the currently proposed contract amendments and future contract amendments to support implementation of the Delta Plan. 7

We invite DWR to engage with Council staff in early consultation as you complete the final environmental documentation for the project and prepare for submittal of a certification of consistency with the Delta Plan. Please contact me at (916) 445-0258 (Jeff.Henderson@deltacouncil.ca.gov) or (916) 589-0081 (Andrew.Schwarz@deltacouncil.ca.gov) with any questions. 8

Sincerely,

Jeff Henderson, AICP
Deputy Executive Officer

Cc: Cindy Messer, Department of Water Resources (Cindy.Messer@water.ca.gov)
Kris Jones, Department of Water Resources (Kris.Jones@water.ca.gov)

[3] For reference, Water Code section 85021 states that "The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts."

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PUBLIC VENTURA COUNTY WORKS

WATERSHED PROTECTION
WATERSHED PLANNING AND PERMITS DIVISION
800 South Victoria Avenue, Ventura, California 93009
Sergio Vargas, Deputy Director – (805) 650-4077

M E M O R A N D U M

DATE: April 13, 2020

TO: Brian Heiland, Permit Engineer
Department of Water Resources

FROM: Sergio Vargas, Deputy Director

SUBJECT: DEIR-State Water Supply Amendments-DWR
Watershed Protection Project Number: WC2020-0012

Pursuant to your request dated February 28, 2020, this office has reviewed the submitted materials on behalf of the SWP Contractor Ventura County Flood Control District (District) and provides the comment below.

PROJECT LOCATION:

The proposed project does not have a specific physical location. However, the environmental analysis prepared in the Partially Recirculated DEIR will address whether implementation of the proposed project would affect areas within the State connected with operation and management of the State Water Project (SWP). Therefore, the proposed project study area consists of the areas encompassing SWP operations and facilities, as well as Public Water Agency (PWA) service areas

PROJECT DESCRIPTION:

The proposed project is located within the State Water Project (SWP) Service Area, which includes the water delivery facilities of the SWP and service areas of the PWAs that receive water from the SWP. The proposed project would add, delete, and modify provisions of the Contracts and clarify certain terms of the Contracts that will provide greater water management regarding transfers and exchanges of SWP water within the SWP service area. The proposed project would not build new or modify existing SWP facilities nor change any of the PWA Annual Table A amounts. The proposed project would not change the water supply delivered by the SWP, as SWP water would continue to be delivered to the PWAs consistent with the existing water management and existing financial provisions in the Contracts.

WATERSHED PROTECTION DISTRICT COMMENT:

Because the recirculated DEIR has been revised to remove the cost allocation proposals for the WaterFix program, and currently includes alternatives for improved water management regarding transfers and exchanges of SWP water among the PWAs, the District has no comments at this time. 1

If you have any questions, please feel free to contact Sergio Vargas by email at Sergio.Vargas@ventura.org or by phone at (805) 650-4077.

END OF TEXT

508.8

DUDLEY RIDGE WATER DISTRICT

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April 9, 2020

Brian "B G" Heiland, Principal Engineer
State Water Project Analysis Office
Department of Water Resources
PO Box 942836
Sacramento, CA 94236-0001

VIA EMAIL to VMTAmendment@water.ca.gov

SUBJECT: Partially Recirculated DEIR – Amendments for Water Management

Dear BG:

Transmitted herewith are this District's comments on the Partially Recirculated Draft Environmental Impact Report ("DEIR") on the proposed State Water Project ("SWP") contract amendments for water management.

First, the District has been a big supporter of incorporating better water management practices and greater flexibility into the SWP. Although many of the provisions in the proposed amendment are either allowed (or not prohibited) under the existing Water Supply Contract, the District understands the Department's desire for better clarification of the contract language.

Below are the District's comments on the DEIR; notations in parenthesis refer to the page number(s) in the DEIR.

1. We concur that "*Alternative 4 would be the environmentally superior alternative*" (ES-10, 7-17, 7-20, 7-25). The District encourages any efforts by the Department and the SWP contractors to add such additional provisions into the amendment. 1
2. Table 2-19 misstates the District's Table A amount. As of January 1, 2020, the District's Table A amount was reduced to 41,350 AF (2-19). 2
3. "*The proposed project would be consistent with current SWP operations, therefore no permits or approvals from the State Water Board or related to environmental endangered species are required. DWR is evaluating if any other approvals from other agencies may be required*" (4-8). Regarding the last sentence, during the CEQA process, the Lead Agency should identify entities that have approval authority over the proposed project. If no other entities have been identified at this time, the District assumes that approvals beyond those indicated in the DEIR are not required, particularly related to the understanding that "*the proposed amendment would not preclude transfers among the north of Delta PWAs or between north of Delta PWAs and south of Delta PWAs*" (5.1-6), and that the "*proposed project would be consistent with current SWP operations*" (5.7-7), which in the past has allowed such transfers and exchanges. 3
4. Although the DEIR recognizes that transfers and exchanges could reduce groundwater pumping and decrease energy consumption (5.7-7) and groundwater levels could increase or decrease due to transfers and exchanges (5.10-18), the DEIR concludes that groundwater "*impacts would be potentially significant*" (5.10-13, 5.10-20, 6-10, 6-11). Furthermore, Impact 5.10-1 states that "*the increase in groundwater pumping associated with changes in transfers and exchanges implemented by PWAs could substantially deplete groundwater supplies in some areas of the study area*" (6-14&15). These conclusions are based on the assumption that "*DWR cannot be sure the GSPs would be likely to achieve the sustainability goal*" (5.10-21, 6-9, 6-10). 4

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The District strongly disagrees with the validity of DWR's assumption. In reality, the Groundwater Sustainability Agencies ("GSAs") that have developed GSPs and are beginning implement the GSPs have every incentive to reach sustainability, and in the remote chance that they do not, the law is clear that the State Water Resources Control Board has the authority to implement its own plan and impose fees for pumping, reporting, and recovering its costs expended in achieving sustainability. The DEIR also ignores the fact that State law (SGMA[1]) requires that groundwater pumping be controlled to sustainable levels, thus any increased groundwater pumping due to a transfer or exchange must be offset by decreased groundwater pumping via other means. One way or another, SGMA mandates that each GSA in the State reach sustainability with their groundwater supplies or the State is empowered to do so; DWR assuming otherwise is contradictory to what si happening throughout the State, and more importantly, State law.

4 (cont.)

The District appreciates the opportunity to review and comment on the DEIR related to improving Water Management in the State Water Project.

Respectfully,

Dale K. Melville
Manager-Engineer

CC: DRWD Board of Directors (email)
Ted Craddock, Deputy Director DWR (email)
Jennifer Pierre, State Water Contractors (email)

[1] Sustainable Groundwater Management Act of 2014.