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14 On behalf of Central Delta Water Agency,  
15 South Delta Water Agency, Lafayette Ranch,  
16 Heritage Lands, Mark Bachetti Farms  
17 And Rudy Mussi Investments L.P.

18 ADDITIONAL COUNSEL LISTED ON FOLLOWING PAGE

19 **STATE OF CALIFORNIA**

20 **STATE WATER RESOURCES CONTROL BOARD**

21 Hearing in the Matter of California  
22 Department of Water Resources and  
23 United States Department of the Interior,  
24 Bureau of Reclamation Request for a  
25 Change in Point of Diversion for  
26 California Water Fix

**TESTIMONY OF DANTE JOHN  
NOMELLINI, SR. IN SUPPORT OF THE  
SOUTH DELTA WATER AGENCY  
PARTIES' CASE-IN-CHIEF FOR PART 2  
OF THE CALIFORNIA WATERFIX  
CHANGE PETITION**

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16 I, Dante John Nomellini, Sr., declare:

17 1. I am the Manager and Co-counsel for the Central Delta Water Agency, I have  
18 since 1976 resided on Middle Roberts Island (RD 524) where my wife and I through our  
19 revocable trust own a home and the adjoining approximately 36 acres which is riparian to and  
20 abuts the San Joaquin River. The salinity of the water in the San Joaquin River abutting our  
21 home and in our domestic well has substantially degraded over the 40 years to the point where  
22 our primary source of drinking water is now bottled.

23 2. My Statement of Qualifications (SDWA-150) is true and correct.

24 3. The exhibits referred to herein which are copies of documents or excerpts from  
25 such documents are true and correct copies. Highlighting, underlying and any notations are  
26 obvious and are my additions.

27 4. Much of my testimony in Part 1 was withdrawn by strike outs and some of my  
28 exhibits withdrawn due to the SWRCB division of subject matter between Part 1 and Part 2. I  
have tried to follow the decisions of the hearing officers in referring to and reintroducing  
exhibits using the same Exhibit Numbers followed by Pt2.

5. My testimony sets forth the evidence as to why approval of the WaterFix  
Petition is not in the public interest.

1 The current proceeding is basically the State of California ruling on its own actions.  
2 The inherent conflict of interest in this proceeding is greatly exacerbated by the aggressive and  
3 premature support of the governors and high ranking federal officials for an isolated  
4 conveyance facility separating Sacramento River water from the common pooling of watershed  
5 water in the Delta and deliberately causing a significant degradation of water quality in the Bay  
6 Delta Estuary. The SWRCB has been entrusted with broad responsibilities to protect the  
7 public trust and public interest and should not ignore evidence indicating corruption of the  
8 process. The February 21, 2017 ruling reminded the parties “that the adequacy of DWR’s EIR  
9 for purposes of CEQA compliance is not a key hearing issue, and directed the parties not to  
10 present evidence or argument on that issue. As a “responsible agency” the SWRCB has  
11 responsibilities beyond the adequacy of DWR’s determination. 14 CCR section 15096 (g) (2)  
12 provides: “When an EIR has been prepared for a project, the Responsible Agency shall not  
13 approve the project as proposed if the agency finds any feasible alternative or feasible  
14 mitigation measures within its powers that would substantially lessen or avoid any significant  
15 effect the project would have on the environment.” 14 CCR 15096 (h) provides: “The  
16 responsible agency shall make findings required by Section 15091 for each significant effect of  
17 the project and shall make the findings in section 15093 if necessary.” A summary of the DWR  
18 findings including those deemed significant and significant and unavoidable is set forth at ES-  
19 56 of the Bay Delta Conservation Plan/California Water Fix Final EIR/EIS Executive  
20 Summary SWRCB 110. DWR’s determination of the adequacy of the Final EIR/EIS, which is  
21 arguably in error, does not determine the adequacy to satisfy the SWRCB separate and distinct  
22 obligations. As acknowledged in DWR CEQA findings: “The Final EIR/EIS, then, sets forth  
23 sufficient analysis for allowing DWR, as lead agency, to satisfy its duties under the two public  
24 trust doctrines. These documents should also be very helpful in assisting both the State Water  
25 Resources Control Board (State Board) and the Department of Fish and Wildlife (DFW), as  
26 CEQA responsible agencies, to satisfy their own obligations under both the common law  
27 public trust doctrine and the statutory public trust doctrine aimed at protecting wildlife and fish  
28 species.” DWR wears two hats, one as duty bound contractually with the SWP contractors and

1 secondly as a state agency with public trust and public interest protection duties. The existence  
2 of the DWR egregious conflict of interest makes critically important that the SWRCB  
3 overcome its conflict of interest as a state agency ruling on a sister state agency with pressure  
4 from even the stated positions of the Governor to make a careful and independent evaluation of  
5 the DWR proposal and findings. The restriction on evidence and argument as to the adequacy  
6 of DWR's EIR for purposes of CEQA compliance is unduly restrictive and inappropriate.

7         It would appear that most significant and significant unavoidable impacts can be  
8 avoided with continuation of the through delta conveyance of water, which has taken place for  
9 in excess of 40 years, coupled with reduced reliance on exports from the Delta. Continuation  
10 of Delta levee maintenance and improvement programs and the limitation of exports to water  
11 which is truly surplus to the needs including fish and wildlife needs in the Delta and other areas  
12 of origin will increase reliability of the actual dependable supply. Increased preparation for  
13 emergency implementation of the armored corridor plan in the Delta and encouragement of  
14 self-sufficiency including floodwater capture for groundwater and surface storage south of the  
15 Bay- Delta watershed could help provide truly surplus water for export. Due to the SWP and  
16 CVP failure to develop the additional 5,000,000 acre feet of surplus water to the Delta by the  
17 year 2000 the Bay-Delta watershed will require substantial water development to restore  
18 groundwater basins and otherwise meet local needs. The policy of exporting only water which  
19 is truly surplus to the present and future needs of the region in which it originates is sound and  
20 the best public interest and public trust policy. Aside from the adequacy of the DWR's EIR  
21 for purposes of CEQA compliance with public trust and public interest concerns should  
22 encompass conduct of fair and open public processes, the avoidance of corruption and  
23 avoidance of predetermination even in NEPA and CEQA processes.

24  
25                 **AS A MATTER OF PUBLIC INTEREST AND PUBLIC TRUST THE**  
26 **CURRENT PROCEEDINGS ARE PREMATURE AND REFLECT THE**  
27 **PREDETERMINATION OF STATE AND FEDERAL ACTION TO CONSTRUCT**  
28

1 **AND OPERATE AN ISOLATED CONVEYANCE FACILITY ACROSS THE DELTA**  
2 **WITH THREE NEW INTAKES ON THE SACRAMENTO RIVER.**

3  
4 **The Decision to Proceed with an Isolated Conveyance, i.e. Tunnels, WaterFix Has Been**  
5 **Made in Advance of the Analysis and Preparation of the Draft EIR/EIS and**  
6 **RDEIR/SDEIS and has destroyed the Impartiality for a Good Faith Effort at Full**  
7 **Disclosure and Analysis of Impacts, Alternatives and Mitigation.**

8 NEPA requires full disclosure of the potential effects of major actions proposed by  
9 federal agencies and accompanying alternatives, impacts and possible mitigation. NEPA also  
10 requires that environmental concerns and impacts be considered during planning and decision  
11 making so that steps may be more easily taken to correct or mitigate the impacts of an action.  
12 Compliance with NEPA should result in more informed decisions and the opportunity to avoid  
13 or mitigate for potential environmental effects before an action is implemented. The NEPA  
14 process is intended to identify and evaluate alternatives in an impartial manner. (See  
15 Reclamation's NEPA Handbook dated February 2012.)

16 CEQA requires adequacy, completeness and a good faith effort at full disclosure. The  
17 EIR is to inform the decision makers and the public of the environmental impact of proposed  
18 actions. (See CEQA Guidelines sections 15002 and 15003.) The purposes include identifying  
19 ways to avoid or significantly reduce environmental damage and preventing significant,  
20 avoidable damage to the environment by requiring changes in projects through the use of  
21 feasible alternatives or mitigation measures.

22 //

23 The environmental review for BDCP and now the California Water Fix has been  
24 orchestrated to justify the new Sacramento River Intakes and the Isolated Conveyance Facility.  
25 Such actions reflect bad faith and have resulted in inadequate disclosure and analysis of  
impacts, alternatives and mitigation.

26 1) Participation in the BDCP Steering Committee was conditioned on agreement to  
27 The Bay Delta Conservation Plan Points of Agreement for Continuing into the Planning  
28 Process dated November 16, 2007, which includes agreement to new points of diversion on the  
Sacramento River and an isolated conveyance facility.

1 The agreement provides:

2 "2.3 Conveyance Facilities

3 The Steering Committee agrees that the most promising approach  
4 for achieving the BDCP conservation and water supply goals  
5 involves a conveyance system with new points of diversion, the  
6 ultimate acceptability of which will turn on important design,  
7 operational and institutional arrangements that the Steering  
8 Committee will develop and evaluate through the planning  
9 process. The main new physical feature of this conveyance system  
10 includes the construction and operation of a new point (or points)  
11 of diversion in the north Delta on the Sacramento River and an  
12 isolated conveyance facility around the Delta. Modifications to  
13 existing south Delta facilities to reduce entrainment and otherwise  
14 improve the State Water Project's (SWP) and Central Valley  
15 Project's (CVP) ability to convey water through the Delta while  
16 contributing to near and long-term conservation and water supply  
17 goals will also be evaluated. This approach may provide enhanced  
operational flexibility and greater opportunities for habitat  
improvements and fishery protection. During the BDCP process,  
the Steering Committee will evaluate the ability of a full range of  
design and operational scenarios to achieve BDCP conservation  
and planning objectives over the near and long term, from full  
reliance on the new facilities to use of the new facilities in  
conjunction with existing facilities." (Exhibit SDWA-154-Pt2)  
(Emphasis added.)

18 Excluded from such planning process agreement is design and operation of the SWP  
19 and CVP without an isolated conveyance facility and/or new intake facilities on the  
20 Sacramento River.

21 Exhibit SDWA-153-Pt2 is a copy of the January 27, 2009, letter from Karen  
22 Scarborough, Undersecretary of the State of California Resources Agency and Chair of the  
23 BDCP Steering Committee to Dante John Nomellini, Manager and Co-Counsel of the Central  
Delta Water-Agency requiring consent to the new intakes on the Sacramento River and an  
isolated conveyance facility. The letter provides:

24 "As you are also aware, consent to the 'Points of Agreement' and other  
25 prior decisions of the Steering Committee is requisite for a seat on the  
26 Steering Committee."

27 Exhibit SDWA-154-Pt2 is a copy of The Bay Delta Conservation Plan: Points of  
28 Agreement for Continuing Into the Planning Process (November 16, 2007).

1 Exhibit SDWA-155-Pt2 is a copy of the August 26, 2008, letter from Dean Ruiz,  
2 attorney for the Central Delta Water Agency, to Karen Scarborough requesting membership on  
3 the BDCP Steering Committee.

4 Exhibit SDWA-156-Pt2 is a copy of the November 13, 2008, letter from Dante John  
5 Nomellini, Manager and Co-Counsel of the Central Delta Water Agency, to Karen  
6 Scarborough, et al. stating willingness to execute the October 6, 2006, Planning Agreement but  
7 disagreeing with the provision in the November 16, 2007 "Points of Agreement."

8 2) The Department of Water Resources as lead agency for CEQA and the United  
9 States Department of Interior's Bureau of Reclamation as a co-lead agency under NEPA are  
10 both signatories to the March 2009 Memorandum of Agreement Regarding Collaboration On  
11 the Planning, Preliminary Design and Environmental Compliance for the Delta Habitat  
12 Conservation and Conveyance Program in Connection With the Development of the Bay Delta  
13 Conservation Plan. The Memorandum includes the above referenced November 16, 2007,  
14 Points of Agreement to construct and operate an isolated conveyance facility as Exhibit 2  
15 thereto. Said Memorandum is Exhibit SDWA-157-Pt2. DWR and the USBR are both  
16 signatories to the December 15, 2011, First Amendment To The Memorandum of Agreement  
17 Regarding Collaboration On the Planning, Preliminary Design and Environmental Compliance  
18 For The Delta Habitat Conservation and Conveyance Program In Connection With the  
19 Development of the Bay Delta Conservation Plan. Said First Amendment confirms the  
20 ongoing commitment to the BDCP and DHCCP including the March 2009 MOA which is  
21 Exhibit SDWA-157-Pt2 and further references in paragraph J. the November 2007 "Points of  
22 Agreement." The First Amendment dated December 15, 2011, is Exhibit SDWA-158-Pt2.

23 3) The Draft EIS/EIR was written in a manner advocating the Conservation Strategy of the  
24 BDCP plan which is to construct and operate an isolated conveyance as a stand-alone  
25 conveyance or as part of dual conveyance and is evidence that the decision is predetermined.  
26 The lack of objective and impartial presentation and analysis is apparent. The Executive  
27 Summary for the Bay Delta Conservation Plan SWRCB-5 at page 10 sets forth the  
28 Conservation Strategy for "Water Flow and Conveyance" as follows:

#### "Water Flow and Conveyance

Water flow and conveyance conservation measures provide for the development and operation of new water conveyance infrastructure and the establishment of operational parameters associated with existing and new facilities. New north Delta intake facilities along the Sacramento River will divert water through state of the art positive barrier fish screens into an isolated tunnel/pipeline to the south Delta. In conjunction with the existing south Delta facilities (referred to as dual operations), this improved operational flexibility will improve conditions for covered fish species and restore water supply reliability. Water diversion rates and bypass flows in the Sacramento River at the north Delta diversions will be informed by seasonal movement patterns of covered fish species. The

1 conservation measures summarized in the following sections are discussed  
2 in detail in Chapter 3, Conservation Strategy.” (Emphasis added.)

3 The Executive Summary for the BDCP Draft EIR/EIS (November 2013) Exhibit  
4 SWRCB-4 at page ES-1, paragraph 3 provides:

5 “. . . The BDCP is a comprehensive conservation strategy for the  
6 Sacramento-San Joaquin Delta (Delta) to advance the planning goal of  
7 restoring ecological functions of the Delta and improving water supply  
8 reliability in the state of California. The conservation strategy is designed  
9 to restore and protect ecosystem health, water supply, and water quality  
10 within a stable regulatory framework. The BDCP reflects the outcome of  
11 a multiyear collaboration between DWR, Reclamation, state and federal  
12 fish and wildlife agencies, state and federal water contractors,  
13 nongovernmental organizations, agricultural interests, and the general  
14 public. The BDCP sets out a comprehensive conservation strategy for the  
15 Delta designed to restore and protect ecosystem health, water supply, and  
16 water quality within a stable regulatory framework through the following.

- 17 • New and/or modified state water conveyance facilities and  
18 operation of the SWP and the CVP in the Delta.” (Emphasis added.)

19 At page ES-2, it is provided:

20 “The conservation strategy is based on the best available science and was  
21 built upon the following broad conservation goals.” (Emphasis added.)

22 These statements issued in advance of the completion of the EIR/EIS process  
23 reflect the predetermination and intended lack of objectivity in the preparation of the  
24 environmental documents and analysis.

25 4) The pretense that the isolated conveyance facility was a Conservation Measure  
26 (CM1) has been removed however the lack of good faith effort at full disclosure remains. Two  
27 forty foot (40ft) diameter tunnels 35 miles long which have the capacity depending on intakes  
28 to convey 3,000, 9,000, 15,000 cubic feet per second or any other amount of water from the  
Sacramento River to the export pumps with no outlets for maintaining Delta water quality  
certainly do not constitute a measure to protect and enhance the unique cultural, recreational  
and agricultural values of the Delta as an evolving place. During much of the time the capacity  
of the tunnels to direct water will exceed the flow available in the Sacramento River at the  
intake location. As clearly demonstrated the SWP and CVP have not developed sufficient  
supply to meet the desires of contractors or even the preconditions to their permits to operate.  
There is no basis to assume that regulatory restraints will not continue to be avoided through  
emergency actions and there is no basis to assume that water supply will be developed in  
sufficient quantities to meet regulatory requirements, senior obligations and contractual  
desires. Disregarding operation the impacts of construction and the physical facilities



1 themselves will severely damage the Delta in violation of the statutory mandate to protect and  
2 enhance.

3 5) Top Public official actions have gone far beyond simple preference of a  
4 particular project and have resulted in the lack of impartiality of the public agencies under their  
5 direction which is necessary to a good faith full disclosure in the environmental documents.

6 Jerry Brown, Governor of the State of California has been emphatic in his advocacy of  
7 the BDCP tunnels. See Exhibit SDWA-159-Pt2 which is a May 28, 2014 Article wherein he is  
8 quoted as saying "I just want to get sh\*t done,". "Sh\*t" appears to be the BDCP tunnels which  
9 are the alternative to his previously emphatically supported peripheral canal, but with no  
10 outlets to maintain Delta water quality. Those within the Governor's Department of Water  
11 Resources and Department of Fish and Wildlife (agencies responsible for good faith full  
12 disclosure in the BDCP EIR/EIS) would be fools to misread the direction from the top. They  
13 have not misread the direction.

14 Secretary of Interior Ken Salazar, the head of the U.S. Bureau of Reclamation  
15 and U.S. Fish & Wildlife Service has also signaled his emphatic support for the BDCP Tunnels  
16 in remarks to the Commonwealth Club, San Francisco, CA, September 19, 2011, Exhibit  
17 SDWA-160-Pt2. After referencing debate raging in Washington, D.C. relating to water  
18 supplies we depend on in the west. He explains:

19 "It's a battle between pragmatism and ideology.  
20 Collaboration versus cynicism."

21 "In California's Bay Delta, a plan to modernize and secure  
22 the State's aging and inadequate water system is always the target  
23 of pot shots. Yet the bottom line is the health of the Delta is  
24 inextricably linked to the security of safe and reliable water  
25 supplies."

26 Mr. Salazar goes on to provide:

27 "That solution is the Bay Delta Conservation Plan.  
28 The Bay Delta Conservation Plan is the most important - and most  
29 complex - long-term water and habitat management plan ever  
30 undertaken.

The BDCP provides a comprehensive approach that includes new  
habitat for endangered fish species, coordinated measures to attack  
toxics that are fouling delta waters, and improvements to the  
state's water infrastructure.

Rather than simply pumping water from north to south through the  
Delta - which places immense strain on the system and is

1 unreliable - a new conveyance system would reduce direct  
2 conflicts between water supply and fisheries, as the Delta Vision  
3 Blue Ribbon Task Force and many independent scientists have  
recommended.

4 This type of a comprehensive approach is long overdue. We  
5 simply must find a way to put California on a path to restore the  
6 delta and protect in-Delta interests - while also securing a more  
7 reliable water supply for its future. These are the 'co-equal goals'  
required by the landmark law that the California legislature passed  
in 2009.

8 That's why, for the past two and a half years, my Department has  
9 committed a vast amount of energy to advancing the BDCP."

10 The reference to "a new conveyance system" rather than "simply pumping water from  
11 north to south through the Delta" is to the BDCP common strategy for Water and Conveyance  
12 which is the "isolated tunnel/pipeline to the south Delta". Mr. Salazar's characterization of  
13 criticism as "pot shots" does not encourage those within his departments to make a good faith  
disclosure of adverse impacts of the project which he apparently favors.

14 It would appear that those public officials who will control the decisions have  
15 moved well beyond support to a predetermination to move forward with the isolated  
conveyance in advance of completion of the EIR/EIS process.

16 6) Further evidence of the predetermination of proceeding with the isolated  
17 Tunnel/pipeline conveyance prior to completion of the EIR/EIS is the Department of Water  
18 Resources establishment of an organization within the Department called the Delta  
19 Conveyance Facility Design and Construction Enterprise to support the design and  
20 construction of Conservation Measure 1. See Exhibit SDWA-161-Pt2. In a presentation to the  
Metropolitan Water District of Southern California, Special Committee on the Bay Delta Mark  
Cowan, Director of the Department of Water Resources was quoted as saying:

21 "So that's what I wanted to say about the DCE,' he said. 'The  
22 memo that I put out to all staff as Randall indicated, really is just  
23 our first steps as an organization to prepare ourselves for  
24 implementation of this project so we're taking our existing  
25 resources and starting to move them into an organization that can  
engage both with the DCE and ultimately with the implementation  
office for BDCP as well.'" (Exhibit SDWA-162-Pt2) (Emphasis  
26 added.)

27 The candid admission by Jerry Meral, then Deputy Secretary of Resources who  
28 was quoted to say:

1           “BDCP is not about, and never has been about saving the delta.  
2           The delta cannot be saved.”

3 is further evidence that there has been a predetermination as to the construction of the isolated  
4 conveyance facility? See Exhibit SDWA-163-Pt2.

5           The isolated conveyance is the only measure for which the BDCP EIR/EIS provides  
6 project level review. The lack of inclusion of Delta levee improvements as part of the project to  
7 facilitate export operation when the Sacramento River intakes cannot be safely operated lends  
8 more weight to the evidence that going forward with the isolated conveyance has been  
9 predetermined. The State administration determination is contrary to State law which requires  
10 that the unique cultural, recreational, natural resource and agricultural values of the Delta be  
11 protected and enhanced and that water shall not be diverted from the Delta for use elsewhere  
12 unless adequate supplies for the Delta are first provided.

13           In April of 2015, before completion of environmental review, the Design and  
14 Construction Enterprise (DCE) developed a CM1 Property Acquisition Management Plan  
15 focused only on Alternative 4 which includes the Sacramento River intakes and the isolated  
16 tunnels along the chosen route for Alternative 4A. This planning effort focus on only one  
17 alternative and one route is yet another commitment of resources to the single preferred  
18 alternative thus inhibiting objective review of other alternatives. See Exhibit SDWA-164-Pt2.

19           On August 25, 2015 the DWR and USBR submitted to the SWRCB a petition for  
20 change in their specific water permits to allow the three new intakes on the Sacramento River  
21 for Alternative 4A. This commitment of resources and reflection of intent to move forward  
22 with Alternative 4A and only 4A is yet another confirmation of the predetermination for new  
23 intakes on the Sacramento River and the isolated conveyance tunnels. See Exhibit SWRCB-1.

24           On August 27, 2015 California Natural Resources Secretary John Laird gave an update  
25 to a committee of the San Diego Water Authority explaining the split of the tunnel project into  
26 two projects. He explained “By doing two 30-mile tunnels and by doing habitat restoration, it  
27 lowers the amount of approval that needs to be done, and you can move ahead with the  
28 habitat...”. “I should just say that the Governor is very committed to doing this,” he said, “He  
wants to get it done. One of the interesting things in working for him is that he is fearless. He  
says what he really thinks; it doesn’t matter how unpopular it is, if he thinks it’s in the long-  
term interest, he is determined to spend whatever capital it takes to get it done, and this is on  
that list for him.” The predetermination as to the tunnels is again confirmed. See Exhibit  
SDWA-165-Pt2.

          On September 21, 2015 the USACE gave notice that the DWR applied for a permit to  
place fill material in approximately 775.02 acres of waters of the United States to construct and  
operate a new water conveyance facility consisting of three intakes along the Sacramento River  
and dual tunnels conveying up to 9,000 cubic feet per second of water to the existing Clifton  
Court Forebay. See Exhibit SDWA-166-Pt2. This application is specific to the 4A tunnels and  
three Sacramento intakes adding to the evidence of predetermination.

1 The actions of Federal Officials and Agencies reflect an intentional violation and  
2 circumvention of 40 CFR section 1506.1(a) which precludes actions which would "Limit the  
3 choice of reasonable alternatives" until an agency issues a record of decision as provided in  
4 section 1505.2. Such actions clearly run contrary to a good faith effort to rigorously explore  
5 and objectively evaluate all reasonable alternatives as required by 40 CFR section 1502.14.

6 The actions of State Officials and departments clearly show that the project with three  
7 intakes on the Sacramento Rivers and two tunnels connecting to Clifton Court has already been  
8 determined to be the selected project regardless of the fact that environmental review has not  
9 been completed.

10 **NEPA POLICY AND PROCEDURAL REQUIREMENTS TO ASSURE**  
11 **OBJECTIVITY IN THE PREPARATION OF THE EIS HAVE BEEN AND ARE**  
12 **BEING CIRCUMVENTED AND SUCH CIRCUMVENTION IS NOT IN THE PUBLIC**  
13 **INTEREST OR CONSISTENT WITH PROTECTION OF THE PUBLIC TRUST.**  
14 **FEDERAL PERMITS ARE REQUIRED AND NEPA COMPLIANCE SHOULD BE**  
15 **INCLUDED AS A PART OF THIS SWRCB PROCEEDING**

16 The BDCP Draft EIR/EIS Purpose Statement is a confusing mix of State Water Project  
17 (SWP), federal Central Valley Project (CVP), State Water Contractor and federal Water  
18 Contractor purposes and needs. It is a joint NEPA and CEQA environmental document.

19 The SWP and State Water Contractors obviously want to construct the isolated  
20 conveyance facility and operate the SWP to maximize the export of water from the Delta.

21 The CVP (U.S. Bureau of Reclamation) although clearly in favor of construction of the  
22 isolated conveyance has not forthrightly sought authority to join in construction, but obviously  
23 plans to convey CVP water through such facility and seeks to protect the "ability of the SWP  
24 and CVP to deliver up to full contract amounts, . . ."

25 The SWP contractors and CVP contractors who are to receive the water exported from  
26 the Delta obviously are isolated conveyance and full delivery proponents.

27 The roles of regulating agencies and applicants, lead agencies and cooperating agencies  
28 has been mixed in a manner which circumvents the procedural mechanisms to assure NEPA  
required objectivity.

The SWP and SWP contractors seeking take permits from the U.S. Fish & Wildlife  
Services (USFWS) and National Marine Fisheries Service should be viewed as applicants and  
the Services as co-lead agencies. In such case, the EIS should have been prepared directly by  
the Services or by a contractor selected by them or where appropriate under 40 CFR section  
1501.6(b), a cooperating agency which has a similar interest. 40 CFR section 1506.5(c) in part  
provides:

1 “It is the intent of these regulations that the contractor be chosen  
2 solely by the lead agency, or by the lead agency in cooperation  
3 with cooperating agencies, or where appropriate by a cooperating  
agency to avoid any conflict of interest.” (Emphasis added.)

4 Allowing DWR, the USBR and their respective contractors to run the show is not  
5 appropriate.

6 Although 40 CFR section 1506.2 directs cooperation to the fullest extent possible to  
7 reduce duplication between NEPA and state and local requirements, it does not suggest that  
8 compliance with requirements to avoid conflict of interest and assure objectivity can be  
9 avoided. Joint selection of common consultants in compliance with NEPA requirements and  
10 subsequent sole direction of the common consultants by USFWS and NMFS as to NEPA  
11 compliance would avoid duplication and could have helped avoid the conflict of interest  
12 deterioration of objectivity. Such has not been the case. The USBR is not a regulatory or  
13 permitting agency for BDCP in the same sense as the USFWS and NMFS. It has its own  
14 responsibilities for compliance with federal ESA. It’s consultations with USFWS and NMFS  
15 require that it comply with NEPA, but its role in protecting endangered species is conflicted  
16 with its role in serving its water contractors and in coordinating the CVP operations with those  
17 of the SWP. The USBR is not an adequate representative for the interests and NEPA  
18 responsibilities of the USFWS and NMFS and should not be a co-lead and particularly the sole  
19 lead. Exhibit SDWA-167-Pt2 is a copy of the First Amendment to the Memorandum of  
20 Agreement Regarding Collaboration on the Planning, Preliminary Design and Environmental  
21 Compliance for the Delta Habitat Conservation and Conveyance Program in Connection with  
22 the Development of the Bay Delta Conservation Plan dated August 31, 2011. This copy  
23 contains signatures by the DWR and USBR. Whether the State and Federal Contractors signed  
24 is not known. This First Amendment can be contrasted to another First Amendment (which  
25 may be the Second Amendment) dated December 15, 2011 and is Exhibit SDWA-158-Pt2.  
26 The USFWS and NMFS are not parties to either First Amendment. Both First Amendments  
27 provide essentially the same language as to contracting, directing and communicating with the  
28 consultants regarding the BDCP related environmental documents.

II.E. of Exhibit SDWA-158-Pt2 provides:

//

“E. DWR is taking the lead role in preparing and, after  
consultation with the Parties, shall direct the consultants regarding  
the content of the BDCP, including those elements of the BDCP  
intended to be incorporated in the EIS/EIR. DWR has also  
contracted with the consultants preparing the EIS/EIR and shall  
continue to administer the contract. DWR shall solicit, in a timely  
manner, from the Department of Fish and Game (‘DFG’), the  
Public Water Agencies, and the NEPA Co-lead Agencies,  
comments on the draft work products in support of the completion  
of tasks, pursuant to the schedules in Exhibit 1 and 1A. As set  
forth in Paragraph B above, Reclamation shall be responsible for

1 coordinating with the NEPA Co-lead Agencies and coordinating  
2 with DWR on the NEPA Co-lead Agencies' comments that DWR  
3 shall submit to the Consultants in accordance with the schedules in  
4 Exhibit 1 and 1A. In the event agency comments are not received  
5 consistent with the schedules in Exhibit 1 and 1A, DWR may  
6 proceed with preparation of the BDCP and DWR, and Reclamation  
7 may proceed with the preparation of the EIS/EIR. DWR shall  
8 direct the Program Manager on preparation of the BDCP and  
9 EIS/EIR as necessary to maintain the schedule or consider  
10 necessary revisions as described in subsection II.C. The DWR  
11 Director shall concurrently advise the Parties of the direction  
12 provided to the Program Manager. Nothing in this section or  
13 elsewhere in this First Amended MOA modifies the Federal  
14 responsibilities for the content of the draft and final EIS and  
15 preparation of the ROD." (Emphasis added.)

16 II.F. of Exhibit SDWA-158-Pt2 and Exhibit SDWA-167-Pt2 in pertinent part provides:

17 "F. DWR has retained a consultant with extensive project  
18 management experience to be the BDCP and DHCCP Program  
19 Manager. The Program Manager shall report to and be directed by  
20 the Director of DWR. The Director of DWR shall implement the  
21 responsibilities of DWR as set forth in Subsection II.E. above. The  
22 Director of DWR may fulfill this responsibility through the  
23 Program Manager, who is delegated to carry out the day-to-day  
24 management activities of the BDCP and to closely coordinate with  
25 Reclamation regarding preparation of the EIS/EIR. . . ."  
26 (Emphasis added.)

27 II.Q. of Exhibit SDWA-158-Pt2 (12-15-11) provides:

28 "Q. The Parties may retain consulting services as necessary to  
complete the BDCP and DHCCP Planning Phase, including the  
BDCP and EIS/EIR. No consultants will be retained for BDCP  
work unless they are approved by DWR. Before retaining  
consultants for EIS/EIR work DWR shall, in accordance with  
NEPA, its implementing regulations and the Lead Agency  
Agreement, consult with the NEPA Co-Lead Agencies. Consistent  
with Section II.F, above, the Director of DWR shall manage the  
retained consultants to carry out the BDCP and EIS/EIR."  
(Emphasis added.)

II.Q. of Exhibit SDWA-167-Pt2 (8-31-11) provides:

"Q. The Parties may retain consulting services as  
necessary to complete the BDCP-DHCCP Planning Phase,

1 including the BDCP and EIS/EIR. Consistent with Section II.F,  
2 above, the Director of DWR shall manage the retained consultants  
3 to carry out the BDCP and EIS/EIR.” (Emphasis added.)

4 III.I. of Exhibit SDWA-158-Pt2 and Exhibit SDWA-167-Pt2 provides:

5 “I. In the event DWR designates SFCWA as a  
6 consultant contract administrator, DWR shall continue collecting  
7 funds from the Public Water Agencies, including but not limited to  
8 those member agencies identified in Exhibit 2, pursuant to the  
9 BDCP-DHCCP Planning Phase funding agreements, and DWR  
shall distribute those funds to SFCWA to fund the consultants that  
are contracting directly with SFCWA for the completion of the  
BDCP-DHCCP Planning Phase.” (Emphasis added.)

10 The USFWS and NMFS, the agencies with the most direct responsibility for protection  
11 of endangered species and the parties expected to grant the essential permits have been  
12 relegated to a back seat role. They don’t hire or direct the consultants; their submission of  
13 comments must be through the USBR and thence through DWR to the consultants. If their  
14 comments are untimely DWR and Reclamation make the call. USFWS and NMFS cannot  
even hire consultants unless they are approved by DWR and DWR can even delegate  
administration of the consultant contracts to the water contractors.

15 The manipulation of the lead, co-lead and cooperating agencies and the delegation of  
16 responsibilities by the State and federal agencies has left the most conflicted parties in charge  
17 of the NEPA environmental process. Although the ultimate approval is left with the respective  
18 agencies, the thousands of pages of text and studies is virtually impossible to adequately  
19 review. The 132 page Executive Summary can be contrasted to the 15 page normal summary  
20 referenced in 40 CFR section 1502.12 and the thousands of pages in the DEIS/EIR can be  
21 contrasted to the 150 to 300 pages referenced in 40 CFR section 1502.7. The impartiality and  
22 avoidance of conflicts whether financial or otherwise, of the consultants is critical to the  
23 objective analysis required by NEPA. Those who contract with the consultants and most  
24 important those who direct the consultants will have the greatest impact on objectivity. As  
related to BDCP the DWR and in turn the USBR are essentially the agents of their respective  
contractors and should be viewed as applicants for the purpose of NEPA compliance. 40 CFR  
section 1506.5(c) specifies that a consulting firm involved in preparing an EIS must execute a  
disclosure statement setting forth any “financial or other interest in the outcome of the project.”  
Whether this was done and by whom is of interest however, even with such disclosure,  
direction of the consultants will greatly dictate the bounds of objectivity.

25 Objectivity to assure the need to “rigorously explore and objectively evaluate all  
26 reasonable alternatives” is made more critical by the revolving door of employees between  
27 federal and state agencies and export water contractors.

28 For NEPA purposes, USFWS and NMFS should now engage independent consultants  
which they direct to review, revise and supplement the already prepared BDCP documents and

1 issue their own draft EIS for public comment and final action. The cost for such effort should  
2 be paid in advance by the contractors.

3 At this juncture the Independent Science Board or some other independent body should  
4 be authorized and funded to review, revise and supplement the already prepared BDCP  
5 documents and issue a new CEQA draft for public comment and final action. The cost for  
6 such effort should be paid in advance by the expert water contractors.

7 In the face of the obvious predetermination and corruption of required objectivity the  
8 SWRCB should not proceed with permitting of the three intakes and tunnels until an  
9 independently directed and corrected draft EIS and EIR is circulated for public review and  
10 comment and completed in good faith compliance with law.

11 Protection of the public trust, public interest and SWRCB CEQA compliance requires  
12 due consideration of NEPA policy.

13 The requirements for NEPA are such that the DEIS/EIR must meet the requirements of  
14 40 CFR section 1502.14 which provides:

15 “§1502.14 Alternatives including the proposed action.

16 This Section is the heart of the environmental impact statement. Based on  
17 the information and analysis presented in the sections on the Affected  
18 Environment (§1502.15) and the Environmental Consequences  
19 (§1502.16), it should present the environmental impacts of the proposal  
20 and the alternatives in comparative form, thus sharply defining the issues  
21 and providing a clear basis for choice among options by the decision  
22 maker and the public. In this section agencies shall:

- 23 (a) Rigorously explore and objectively evaluate all reasonable  
24 alternatives, and for alternatives which were eliminated from  
25 detailed study, briefly discuss the reasons for their having been  
26 eliminated.
- 27 (b) Devote substantial treatment to each alternative considered in detail  
28 including the proposed action so that reviewers may evaluate their  
comparative merits.
- (c) Include reasonable alternatives not within the jurisdiction of the lead  
agency.
- (d) Include the alternative of no action.
- (e) Identify the agency’s preferred alternative or alternatives, if one or more  
exists, in the draft statement and identify such alternative in the final  
statement unless another law prohibits the expression of such a  
preference.
- (f) Include appropriate mitigation measures not already included in the  
proposed action or alternatives.” (Emphasis added.)



1 An alternative which requires that the SWP and CVP be operated in accordance with  
2 current law is a reasonable alternative which must be rigorously and objectively evaluated.  
3 The Water Fix clearly ignores the law establishing the priorities for meeting needs within the  
4 Delta and other areas of origin including the needs of fish and wildlife. The current change  
5 proceeding precludes the rigorous and objective consideration of alternatives.

6 THE PROPOSED CHANGE AND WATERFIX DO NOT  
7 COMPLY WITH LAWS PROTECTIVE OF THE DELTA  
8 INCLUDING THE DELTA REFORM ACT OF 2009

9 The Delta Reform Act of 2009 includes provisions intended to provide additional  
10 protection for the Delta. Such provisions include Water Code §85054 which provides:

11 “§85054. Coequal goals

12 ‘Coequal goals’ means the two goals of providing a more reliable  
13 water supply for California and protecting restoring, and enhancing  
14 the Delta ecosystem. The coequal goals shall be achieved in a  
15 manner that protects and enhances the unique cultural, recreational,  
16 natural resource, and agricultural values of the Delta as an  
17 evolving place.”

18 Water Code §85021 provides:

19 “§85021. Reduction of reliance on Delta for future water supply  
20 needs

21 The policy of the State of California is to reduce reliance on the  
22 Delta in meeting California’s future water supply needs through a  
23 statewide strategy of investing in improved regional supplies,  
24 conservation, and water use efficiency. Each region that depends  
25 on water from the Delta watershed shall improve its regional self-  
26 reliance for water through investment in water use efficiency,  
27 water recycling, advanced water technologies, local and regional  
28 water supply projects, and improved regional coordination of local  
and regional water supply efforts.”

The Delta and other areas of origin both upstream and downstream are part of  
California and also need a more reliable water supply. The modified purposes of the WaterFix  
are clearly directed only at the ability of the SWP and CVP to export water from the Delta.  
Restoration and protection of Delta water quality and flows including flushing flows are part of  
a more reliable water supply for California. Non-degradation of water quality and the statutory

1 obligations to provide enhancement of water quality and an adequate supply for the Delta are  
2 absent from the purposes of the WaterFix and the petition for change.

3 The embedded isolated conveyance will clearly render water supply less reliable in all  
4 areas of the Delta downstream of the Sacramento River intakes and those areas along the  
5 current routes of Sacramento River flow to the export pumps. The common pool for the  
6 interior Delta will be eliminated along with the common interest in protecting the water  
7 quality. The isolated conveyance has no outlets and requirements to protect water quality in  
8 dry periods are always circumvented. For areas throughout the watershed, including those  
9 along the tributaries upstream of the Delta, curtailment of local water use, and water transfers  
10 to increase utilization of the highly expensive tunnels combined with the need for fish flows  
11 and high water consumption habitat to mitigate for the construction and operation of the  
12 tunnels will greatly add to unreliability.

13 The Water Fix ignores the need to reduce reliance on exports of water from the Delta.  
14 The hydrology of the Delta watershed is inadequate to support even the past level of exports.  
15 Development within the watersheds of origin and the need to recapture water from SWP and  
16 CVP exports will increase. There is evidence that more water will be needed to mitigate for  
17 the SWP and CVP damage to fish including meeting the CVPIA anadromous fish restoration  
18 requirements of 2 times the average natural production for the years 1967 through 1991.  
19 Climate change is also expected to adversely affect water supply. The increasing threat of  
20 terrorism, the continuing threat of natural calamities, including earthquakes and the growing  
21 need for electricity all gravitate towards less reliance on exports from the Delta and instead  
22 concentration on developing local self- sufficiency. The deficit due to the failure to develop  
23 North Coast watersheds will not be overcome by efforts at self-sufficiency, however, increased  
24 efforts in urban communities can increase the amount of water available for agriculture and the  
25 environment.

26 The hydrology predating the construction of the CVP and SWP reflected that no surplus  
27 water would be available for export from the Sacramento-San Joaquin Watershed during a  
28 reoccurrence of the 1929-1934 drought.

Exhibit SDWA-170 is a copy of the hydrographs from page 116 of the Weber  
Foundation Studies titled "An Approach To A California Public Works Plan" submitted to the  
California Legislature on January 28, 1960. The highlights and margin notes are mine.

The 1928/29-1933/34 six year drought period reflected on Exhibit SDWA-170 shows  
the average yearly runoff is 17.631 million acre feet with local requirements of 25.690 million  
acre feet. There is a shortage during the drought period within the Delta Watershed of 8.049  
million acre feet per year without any exports. It is questionable whether the groundwater  
basins can be successfully mined to meet the shortage within the watershed let alone the export  
demands. A comparable review of the hydrograph for the North Coast area reflects that  
surplus water could have been developed without infringing on local requirements.

The limited hydrology was clearly recognized in the planning for the SWP which was  
to develop projects on the rivers in the North Coast watersheds sufficient to import to the Delta

1 about 5,000,000 acre feet of water seasonally for transfer to areas of deficiency. (See Exhibit  
2 SDWA-169 December 1960 Bulletin 76 page 13). Such areas of deficiency were expected to  
3 be both north and south of the Delta pumps. The projects in the North Coast watersheds were  
4 never constructed and the projects are woefully short of water.

5 The original planning for the SWP and CVP appears to have underestimated the needs  
6 to protect fish both as to flow requirements and carryover storage required for temperature  
7 control. Without such 5 million acre feet of water per year there is no truly surplus water for  
8 export except in wet years.

9 In 2009 after only two (2) dry years, the SWP and CVP violated the February outflow  
10 requirements claiming that meeting the outflow requirements would reduce storage below the  
11 point necessary to meet cold water requirements for salmon later in the year. Although the  
12 project operators lied and the real reason for the violation was the ongoing pumping of the  
13 unregulated flow to help fill San Luis Reservoir, the incident clearly shows the inability of the  
14 projects to provide surplus water for export in the 3rd, 4th, 5th and 6th years of drought.

15 In May of 2013 the SWP and CVP again claimed a need to preserve cold water in  
16 storage for fish. They requested and were allowed by the SWRCB to reduce outflow by  
17 changing the year classification so as to exceed the western and interior Delta agricultural  
18 water quality objectives to save such cold water in storage. They did not suggest and did not  
19 reduce export pumping which would have had the same effect as reducing outflow.

20 In 2014 the 2nd or 3rd year of drought, the SWRCB issued curtailment notices to post  
21 1914 water right holders in the areas of origin and reduced exports due to the lack of water.

22 The events surrounding the 2009 and 2013 Water Quality Standard Violations reveal  
23 disturbing collaboration among the USBR, DWR, state and federal fish agencies and the  
24 SWRCB to facilitate exports rather than meet legal obligations in the Bay Delta watershed.

25 In 2009 the Fishery Agency Representatives did not object to the planned violation of  
26 the standards and even though the water needed to meet the standards was being exported the  
27 SWRCB did not even admonish the state and federal agencies to seek relief in advance of  
28 violation. Although the need for retention of water in storage to meet cold water requirements  
for fish was the alleged motivation for the violation of the standards exports continued at an  
increasing rate including water that could have been held in storage for cold water  
requirements. See Exhibit SDWA- 172.

In 2013 again the reason for the violation was to retain water in storage to meet cold  
water requirements for fish. Following the violation the USBR and DWR requested that the  
standards for protection of agriculture in the central and western Delta be relaxed by allowing  
operation to critical year standards rather than dry year standards. The California Department  
of Fish and Wildlife Service, the United States Fish and Wildlife Service, and NOAA's  
National Marine Fishery Service supported the request. Although the SWRCB staff and all  
such agencies conferred on the matter, there was no suggestion that exports be reduced in lieu  
of water quality standards relaxation. Most disappointing was the SWRCB Executive

1 Director's agreement not to recommend taking any enforcement action for the future operation  
2 to the relaxed standard thereby effectuating a change in standards without even a public  
3 hearing. See Exhibit SDWA-171.

4 In both the 2009 and 2013 cases exports continued at a relatively high rate even though  
5 the need for retention of water in storage for meeting cold water fish requirements was clearly  
6 recognized. See Exhibit SDWA-172.

7 It is clear that the CVP and SWP have not operated the projects in a manner so as to  
8 meet water quality standards during a reoccurrence of six years or even two years of drought.

9 Six year droughts can be expected and even longer droughts are possible. The historic  
10 occurrence of multi-year droughts was reported in a DWR Report, California's Most  
11 Significant Droughts: Comparing Historical and Recent Conditions (February 2015). Exhibit  
12 SDWA-173 is Table 2.1 from such report.

13 The State Water Project Final Delivery Capability Report 2015 shows for Table A, a  
14 long-term average (1921-2003) as 2,550,000 acre feet per year; a single dry year (1977) as  
15 454,000 acre feet and a 6-year drought (1987-1992) as 1,182,000 acre feet per year. These  
16 figures can be contrasted to the Maximum Possible SWP Table A Delivery of 4,132,000 acre  
17 feet per year. See Exhibit SDWA-174 excerpts from SWP Final Delivery Capability Report  
18 2015.

19 The failure of the SWP and CVP to carry out the plan for development of water  
20 projects to yield sufficient surplus water including the 5 million acre feet from the North Coast  
21 to meet the needs and obligations within the Delta and other areas of origin and the  
22 expectations of the export contractors is at the root of the crisis in the Delta.

23 **THE SWRCB IN FULFILLING ITS RESPONSIBILITIES IN PROTECTING THE  
24 PUBLIC TRUST, THE PUBLIC INTEREST AND ITS RESPONSIBILITIES AS A  
25 RESPONSIBLE AGENCY UNDER CEQA SHOULD NOT RELY ON THE DEFICIENCIES  
26 IN DWR DETERMINATIONS**

27 Under CEQA the Purpose and Need cannot be artificially narrowed to limit objective  
28 consideration of reasonable alternatives. The lead agencies have done just that. They rely on  
the proposition that "a reasonable definition of underlying purpose and need" could be used to  
avoid the objective consideration and evaluation of alternatives that cannot achieve that basic  
goal. Their definition of purpose and need is not reasonable or compliant with law.

The requirements for NEPA are different. The DEIS/EIR must meet the  
requirements of 40 CFR section 1502.14 which provides:

"§1502.14 Alternatives including the proposed action.

This Section is the heart of the environmental impact statement. Based on  
the information and analysis presented in the sections on the Affected

1 Environment (§1502.15) and the Environmental Consequences  
 2 (§1502.16), it should present the environmental impacts of the proposal  
 3 and the alternatives in comparative form, thus sharply defining the issues  
 4 and providing a clear basis for choice among options by the decision  
 5 maker and the public. In this section agencies shall:

- 6 (a) Rigorously explore and objectively evaluate all reasonable  
 7 alternatives, and for alternatives which were eliminated from  
 8 detailed study, briefly discuss the reasons for their having been  
 9 eliminated.
- 10 (b) Devote substantial treatment to each alternative considered in  
 11 detail including the proposed action so that reviewers may evaluate  
 12 their comparative merits.
- 13 (c) Include reasonable alternatives not within the jurisdiction of the lead  
 14 agency.
- 15 (d) Include the alternative of no action.
- 16 (e) Identify the agency's preferred alternative or alternatives, if one or more  
 17 exists, in the draft statement and identify such alternative in the final  
 18 statement unless another law prohibits the expression of such a  
 19 preference.
- 20 (f) Include appropriate mitigation measures not already included in the  
 21 proposed action or alternatives." (Emphasis added.)

22 An alternative which requires that the SWP and CVP be operated in accordance with  
 23 current law is a reasonable alternative which must be rigorously and objectively evaluated.  
 24 The Water Fix clearly ignores the law establishing the priorities for meeting needs within the  
 25 Delta and other areas of origin including the needs of fish and wildlife. The current change  
 26 proceeding precludes the rigorous and objective consideration of alternatives.

27 The purpose statement has changed a number of times in apparent response to the  
 28 demands of applicant export water contractors. These contractors, who as permittees, are  
 required to fund the objective and impartial review of the environmental impacts by the public  
 regulatory agencies should not have been allowed to leverage changes in purpose so as to  
 constrain the analysis towards their favored alternative.

Of particular note is the addition and continued inclusion of the following:

"Restore and protect the ability of the SWP and CVP to deliver up to full contract  
amounts, when hydrologic conditions result in the availability of sufficient water,  
 consistent with the requirements of State and federal law and the terms and conditions

1 of water delivery contracts and other existing applicable agreements.” (Emphasis  
2 added.)

3 The ability of the SWP and CVP to deliver “full contract amounts” never existed and  
4 thus could not be restored or protected. The words “up to” conceivably should cover a range  
5 from zero deliveries to a high of what can be supported with full compliance with State and  
6 federal law and hydrologic conditions.

7 A alternative that precludes exports when the Delta does not have an adequate supply must be  
8 included.

9 Export of water from the Delta is counter-productive to improving the ecosystem and  
10 the Water Fix has failed to present the environmental impacts and alternatives in a manner  
11 providing a clear basis for choice among options by the decision maker and the public as  
12 required by 40 CFR section 1502.14. The proposition that removal of natural flows into and  
13 through the Bay-Delta Estuary will improve the ecosystem is unique, bold and unsupportable.

14 Reliability of water supply for exports from the Delta must be junior to the needs and  
15 obligations requiring water in the Delta and other areas of origin including fish and wildlife  
16 needs. The modeling and analysis should provide a clear confirmation of the types and  
17 numbers of years when no water will be available for export and provide estimates of the  
18 amounts that might be available in other years. Care should be taken to model carryover  
19 storage requirements with due consideration of meeting temperature, flow and statutory  
20 requirements to determine the firm yield available for export.

21 Reliability of water supply for Northern California requires that water to meet the needs  
22 of and obligations to restore and even enhance fish not be exported.

23 Both State and Federal laws seek to prevent degradation of water quality. Isolated  
24 conveyance will remove the higher quality Sacramento River water from the Delta pool  
25 thereby reducing the dilution of the poorer quality water returning to the Delta by way of the  
26 San Joaquin River from SWP and CVP operations which deliver water to the west side of the  
27 San Joaquin Valley. The delivery of such water to the San Luis Unit was prohibited by the San  
28 Luis Act of 1960 unless there was a Valley Drain with an outlet to the ocean. (See Exhibit  
SDWA-175). The prohibition was circumvented. Even the promise that “A much needed  
drainage system and water supply will be provided in the San Joaquin Valley” included in  
ballot argument in favor of the California Water Resources Development Act (SWP) was not  
kept. (See Exhibit SDWA-168). The Purposes and this proceeding unreasonably seek to  
maintain and increase exports from the Delta to the west side of the San Joaquin Valley which  
degrade Delta water quality. The commitment to isolated conveyance aggravates such  
degradation.

The provision of salinity control and an adequate supply for the Delta was deemed to be  
of utmost importance and is a critical feature of a reliable supply for the Delta.

Salinity control for the Sacramento-San Joaquin Delta is a primary purpose for Shasta  
Dam.

1  
2 Water Code Section 11207 provides:

3 “§11207. Primary purposes

4 Shasta Dam shall be constructed and used primarily for the following purposes:

- 5 (a) Improvement of navigation on the Sacramento River to Red Bluff.  
6 (b) Increasing flood protection in the Sacramento River.  
7 (c) Salinity control in the Sacramento-San Joaquin Delta.  
8 (d) Storage and stabilization of the water supply of the Sacramento River for  
9 irrigation and domestic use. (Added by Stats. 1943, c 370, p. 1896) (Emphasis  
10 added.)

11 The Delta Protection Act of 1959 in WC 12200 specifically provides: “It is, therefore,  
12 hereby declared that a general law cannot be made applicable to said Delta and that the  
13 enactment of this law is necessary for the protection, conservation, development, control and  
14 use of the waters in the Delta for the public good.”

15 The degradation of water quality in the Delta adversely impacts agricultural, industrial,  
16 urban and recreational (including fish and wildlife) uses in the Delta and surrounding areas as  
17 well as areas served with exports from the Delta.

18 Except as provided by agreement, salinity control and the adequacy of the quality of the  
19 water supply for the Delta is determined by water quality objectives set by the SWRCB. Such  
20 objectives provide the minimum level deemed necessary to protect beneficial uses. Although  
21 the objectives are set for certain uses for certain periods, it is the composite of all objectives  
22 which the SWRCB determined would provide the protection for all beneficial uses. Such  
23 objectives have at times been violated and it is critical to the rigorous and objective analysis of  
24 alternatives to incorporate with and without compliance conditions.

25 Federal law is specific as to the obligations for the CVP.

26 PL99-546 (HR3113) specifically provides:

27 “(b) (1) Unless the Secretary of the Interior determines that  
28 operation of the Central Valley project in conformity with State  
water quality standards for the San Francisco Bay/Sacramento-San  
Joaquin Delta and Estuary is not consistent with the congressional  
directives applicable to the project, the Secretary is authorized and  
directed to operate the project, in conjunction with the State of  
California water project, in conformity with such standards.  
Should the Secretary of the Interior so determine, then the  
Secretary shall promptly request the Attorney General to bring an  
action in the court of proper jurisdiction for the purposes of  
determining the applicability of such standards to the project.

1 (2) The Secretary is further directed to operate the Central Valley  
2 project, in conjunction with the State water project, so that water  
3 supplied at the intake of the Contra Costa Canal is of a quality  
4 equal to the water quality standards contained in the Water Right  
5 Decision 1485 of the State of California Water Resources Control  
6 Board, dated August 16, 1978, except under drought emergency  
7 water conditions pursuant to a declaration by the Governor of  
8 California. Nothing in the previous sentence shall authorize or  
9 require the relocation of the Contra Costa Canal intake." (See  
10 Exhibit SDWA-176.)

11 Section (b) (1) does not allow for the Bureau of Reclamation to operate the CVP  
12 without conforming to the State water quality standards for the San Francisco Bay/Sacramento-  
13 San Joaquin Delta and Estuary even if the SWRCB is willing to look the other way. A  
14 determination by a court of law is required.

15 There are specific processes and procedures for changes to Water Quality Control Plans  
16 including review by the United States EPA, which are not being considered.

17 Section (b) (1) is thus applicable and requires USBR and USF&WS compliance unless  
18 the Secretary of Interior makes a determination that compliance is inconsistent with  
19 congressional directives applicable to the project and then the Attorney General is to be  
20 requested to bring a legal action for a court determination of the applicability of the standards.  
21 There is no such court determination that would allow the CVP to operate without conforming  
22 to the standards.

23 Section (b) (2) provides an additional constraint with regard to the water quality at the  
24 intake to the Contra Costa Canal. Even if the standards were determined by the court to not be  
25 applicable to the CVP, then the D-1485 water quality standards would be applicable to the  
26 intake of the Contra Costa Canal except under drought emergency water conditions pursuant to  
27 a declaration by the Governor of California.

28 In 2004 Congress passed another law to ensure that Delta water quality standards and  
objectives would be met.

PL 108-361 (HR 2828) in pertinent part provides:

(D) "Program to Meet Standards. -

(I) In General. - Prior to increasing export limits from the Delta for the purposes of conveying water to south-of-Delta Central Valley Project contractors or increasing deliveries through an intertie, the Secretary shall, not later than 1 year after the date of enactment of this Act, in consultation with the Governor, develop and initiate implementation of a project to meet all existing water quality standards and objectives for which the Central Valley Project has responsibility." (See Exhibit SDWA-177.)



1  
2 Increasing exports from the Delta which to the extent such are for serving south-of-  
3 Delta Central Valley Project contractors would be directly contrary to the direction of Congress  
4 which was to assure that all existing (October 25, 2004) water quality standards and objectives  
5 would first be met.

6 The WaterFix RDEIR/SDEIS Exhibit SWRCB-3 at ES.1.2.2.2 states: "It is not intended  
7 to imply that increased quantities of water will be delivered under the proposed project." At  
8 best this statement is misleading and at worst is a lie. Figure 4.3.1-16 (Also Exhibit SDWA-  
9 184) shows Alternative 4 H3 (ELT) as increasing average annual wet year exports by 624,000  
10 acre feet over existing conditions and by 898,000 acre feet over the No Action Alternative.

11 At page 4.3.1-5 it is stated: "Under Alternative 4A, average annual CVP south of Delta  
12 agricultural deliveries as compared to No Action Alternative would increase by up to 12% at  
13 ELT and by up to 13% at LLT."

14 At page 4.3.1-7 it is stated: as to the CVP "Therefore, average annual CVP south of  
15 Delta M&I deliveries would increase or remain similar under Alternative 4A as compared to  
16 the conditions without the project." as to the SWP "Therefore, average annual total SWP  
17 deliveries and average annual total SWP south of Delta deliveries under Alternative 4A would  
18 show a decrease or an increase as compared to conditions without the project depending upon  
19 the range of spring outflow requirements."

20 At page 4.3.1-9 under CEQA Conclusion it is stated: "Alternative 4A would increase  
21 water transfer demand compared to existing conditions. Alternative 4A would increase  
22 conveyance capacity, enabling additional cross-Delta water transfers that could lead to  
23 increases in Delta exports when compared to existing conditions."

24 Contrary to Water Code Section 85021 the project will increase rather than decrease  
25 export reliance on the Delta. Thereby harming legal users of water, fish, wildlife, the public  
26 trust and public interest.

27  
28 **THE BDCP/WATER FIX HAS UNREASONABLY DEFINED  
PURPOSES AND NEED TO CONSTRAIN DELTA ECOSYSTEM  
MITIGATION AND IMPROVEMENTS TO ALTERNATIVES WHICH  
CONVERT AGRICULTURAL LAND TO HABITAT RATHER THAN  
REDUCE SWP AND CVP EXPORT OF WATER NEEDED TO PROVIDE  
ADEQUATE WATER FLOW AND QUALITY**

There is strong evidence indicating that fish need water flowing into and out of  
the Delta to the Bay together with adequate conditions for spawning and migration.  
The timing and amounts are the subject of ongoing debate and evaluation.

The SWP and CVP affect flow into and out of the Delta primarily through  
diversions to storage and direct diversions from the tributaries and from locations in the  
Delta to areas outside the Delta. The reliability of water supply for fish at times

1 directly conflicts with the reliability of the water supply for SWP and CVP deliveries  
2 for other purposes and in particular exports from the Delta. The priorities for providing  
3 such reliability are established by law.

4 Water Code Section 85086 of the Delta Reform Act of 2009 assigned to the  
5 SWRCB the task of determining instream flow needs and new flow criteria for the  
6 Delta ecosystem necessary to protect public trust resources. Such determinations have  
7 not yet been completed, yet the RDEIR/SDEIS has been prepared and steps towards  
8 design and construction are underway. Such flow criteria are important to the required  
9 rigorous exploration and objective evaluation of all reasonable alternatives required by  
10 40 CFR 1502.14. The rush to decision in advance of critical evaluations is further  
11 evidence of predetermination and lack of a good faith effort at full disclosure and  
12 analysis of impacts.

13 Driving the need for ecosystem restoration is the need to address the dramatic  
14 decline in fish species and in particular those in danger of extinction. The  
15 RDEIR/SDEIS continues the proposition that habitat in the Delta and factors other than  
16 the amount flow into and through the Delta are the cause of the subject fish declines.  
17 The impacts of the SWP and CVP diversions to storage and diversions for export of  
18 water that is not truly surplus are discounted. The projects divert to storage and divert  
19 from the Delta the winter and spring natural flows that would otherwise flush the Delta  
20 and push back salinity from the bay. Export pumping reverses flows and entrains fish.  
21 Export of water released from storage depletes the amounts needed to meet senior  
22 requirements including fish and wildlife requirements.

23 The export of water from the proposed intakes on the Sacramento River where  
24 there are far greater numbers of fish will likely increase losses of fish, eggs and larvae  
25 due to entrainment and the impacts of screening. Unlike passage through the channels  
26 of the Delta passage through the tunnels does not allow for escape. Predators will surely  
27 occupy the proposed Sacramento River intakes forebays and tunnels. The related  
28 impacts to fish and wildlife have not been adequately examined.

The correlation between SWP and CVP exports and the decline of the fisheries  
has been a concern for many years. In August of 1978 the State Water Resources  
Control Board rendered its Water Right Decision 1485. The Decision was the  
culmination of 32 days of evidentiary hearing initiated on November 15, 1976 and  
concluded on October 7, 1977. At that time the striped bass index was considered to be  
the indicator of ecosystem health for the Delta and Suisun Marsh. Striped bass were in  
effect the "canary in the coal mine". As the years passed and striped bass populations  
plummeted, the water exporters claimed striped bass to be invasive species, predators  
on endangered species and major cause of fish declines wrongfully attributed to the  
export of water. The canary died and the death was ignored to facilitate greater  
exports. As Exhibits SDWA 301 through 305 show, striped bass, Delta smelt,  
steelhead, Winter-Run Chinook salmon and Fall-Run Chinook salmon all co-existed at  
relatively high populations at lower export levels. Exhibits SDWA 301 (Striped Bass  
Indices) and 302 (Delta Smelt Indices) are taken from the CDFW website. Exhibit

1 SDWA 303 (Steelhead Population Trends in Upper Sacramento) is from  
2 <https://nrm.dfg.ca.gov/Filehandler.ashx?DocumentID=33115>. Exhibits SDWA 304  
3 (Estimated yearly adult natural production, and in river adult escapements of winter-run  
4 Chinook salmon in the Central Valley rivers and streams) and 305 (Estimated yearly  
5 adult natural production, and in river adult escapements for the entire mainstem  
6 Sacramento River fall-run Chinook salmon) are from the Anadromous Fish Restoration  
7 Program website.

8 In 1978 the SWRCB concluded in D-1485 at page 13 that:

9 “To provide full mitigation of project impacts on all  
10 fishery species now would require the virtual shutting  
11 down of the project export pumps.” (See Exhibit  
12 SWRCB-23.)

13 The SWRCB also concluded in D-1485 at page 14 that:

14 “Full protection of Suisun Marsh now could be  
15 accomplished only by requiring up to 2 million acre feet  
16 of fresh water outflow in dry and critical years in addition  
17 to that required to meet other standards.” (See Exhibit  
18 SWRCB-23.)

19 Exports from the Delta were not curtailed and the additional 2 million acre feet  
20 of outflow was not provided for the marsh.

21 Exhibit SDWA-178-Pt2 shows Delta Exports from 1956-2009. This exhibit is  
22 Figure 5-2 from Exhibit SWRCB-102. A comparison to Exhibits SDWA 301, 302, 303,  
23 304 and 305 show that significant declines in Striped Bass, Delta Smelt, Steelhead,  
24 Winter-Run Chinook Salmon, and Sacramento Fall-Run Chinook Salmon correlate  
25 with increased exports and support the conclusion of the 1978 SWRCB D 1485 that  
26 mitigation of project impacts to all fish species at that time would require virtual  
27 shutting down of the export pumps. There are obviously other factors including dams  
28 blocking access to spawning areas, provision of cold water and other conditions  
suitable for spawning and migration, however, exports appear to be a major factor.  
Operation of export pumping facilities cause fish mortality and the resulting extraction  
of water from the Bay-Delta which is not truly surplus reduces outflow and alters the  
availability of cold water and flow upstream of the Delta. The failure of the export  
projects to develop the additional 5,000,000 million acre feet of annual flow to the  
Delta by the year 2000 is clearly at the root of the problem. Increased development in  
the watersheds and arid regions south of the Delta coupled with the effects of climate  
change strongly support compliance with the law directing reduced reliance on the  
Delta and an aggressive path towards self-sufficiency in areas importing water from the  
Bay-Delta watershed.

1           What appears clear is that the precipitous declines in fish populations are not  
2 correlated with Delta wetland habitat conditions.

3           The Delta was fully leveed and reclaimed by about 1930.

4           “By 1930 all but minor areas of the swampland had been leveed and were in  
5 production.” (See page 8 of December 1960 Bulletin 76 - Exhibit SDWA-169.) The  
6 USACE completed project levee construction on the San Joaquin River in the early  
7 1960's. There are no significant changes in leveed areas or even riverine habitat which  
8 appear to be the cause of the decline of the fisheries. In fact, there have been increases  
9 in Delta wetland habitat during the periods of apparent decline. Mildred Island flooded  
10 in 1983 and has not been reclaimed. Little Mandeville and Little Frank's Tract flooded  
11 in the 1980's and have not been reclaimed. Lower Liberty Island levees were not  
12 restored and the area has been in a tidal wetland condition since at least 2002.  
13 Restoration of the Delta land mass to pre-1850 conditions without comparable water  
14 conditions and no exports as a solution to the current fisheries declines is  
15 unsupported. Due to land subsidence and contamination from mercury and the like  
16 physical restoration is not feasible. The proposed substitution of some amount of tidal  
17 wetland in lieu of water for fish has detriment in excess of benefit.       The focus on  
18 conversion of Delta land to habitat as a substitute for water for fish is misplaced and the  
19 result of the manipulated BDCP/WaterFix purposes. Adequate analysis has not been  
20 done to determine if development of shallow wetland habitat is actually beneficial or  
21 detrimental to salmon and other anadromous fish particularly in the Delta. Stranding  
22 and predation from otters, egrets, herons, cormorants, gulls, white pelicans and the like  
23 needs further analysis. The limited study (Exhibit SDWA-179-Pt2) showing a picture  
24 of larger salmon smolts raised for a time in a wetland versus smaller smolts raised in  
25 the channel is cited by WaterFix proponents as the evidence that shallow seasonal  
26 wetland in the Delta would be a substitute for flow and justification for the Tunnel and  
27 Sacramento River Intakes . The referenced study monitored caged smolts in the  
28 channel where the fish must constantly swim against the current and compared those  
smolts to smolts in cages in shallow wetlands where there was little or no current. The  
experiment did not attempt to evaluate stranding or predation and it is doubtful that the  
smolts in the channel cages if uncaged would spend as much time swimming against  
the stronger currents rather than seeking areas of the channel where the velocity is  
lower. The presentation of results by BDCP/WaterFix including the fat fish/skinny fish  
photo neglected to show the sizes of the fish from the cages in the channel upstream of  
the shallow habitat which reportedly were comparable to those in the wetlands.  
“During periods of low, clear water, fish growth rates in the river site above the  
floodplain were comparable to those in the floodplain”. (Exhibit SDWA-179-Pt2, pg.  
1.)

#### 26           Creation of Floodplain Habitat Is Not a Substitute for Flow

27           The available evidence and studies do not support such a substitution. The  
28 floodplain habitat which is suggested as potentially beneficial is that which is inundated  
by high flows for a limited period; involves a large area of water of a proper depth to

1 help avoid predation; assumes avian predator populations are limited; is properly  
2 drained to avoid stranding and avoids increased water temperatures detrimental to  
3 salmonids.

4 The Jeff Opperman Final Report for Fellowship R/SF-4 referenced above  
5 containing the picture of the fat fish and skinny fish is often shown as support for the  
6 proposition that floodplain habitat can be substituted for flow (Exhibit SDWA-179-  
7 Pt2.) The study does not put forth that conclusion but suggests “that juvenile Chinook  
8 benefit from access to floodplain habitats”. (Page 2) It is important to recognize that  
9 the test fish were caged and thus predation from birds, fish and other animals was not  
10 an issue. Stranding was down-played but admittedly not tested. The test was  
11 conducted in and along the Cosumnes River. The skinny fish were in the river  
12 swimming against the current and because they were in cages and couldn’t move with  
13 the current or move to quiet and more productive water. The fat fish obviously saved  
14 their energy for growth-and apparently benefitted from improved food availability. The  
15 report states “During high flows the river offers poor habitat and fish living in this type  
16 of habitat will tend to be displaced downstream.” High flows and displacement  
17 downstream are likely not detrimental. It is generally accepted that the salmon do well  
18 in high flow years. The return of adults (escapement) is usually higher two and one-  
19 half years after a high flow year. It is recognized that ocean conditions also play a part  
20 and may in some cases reduce escapement nullifying the benefit of high flow. The  
21 difference in food availability in the high flow channel versus in the quiet water may  
22 not be significant in the test given the consumption of energy and lack of opportunity  
23 for the skinny fish to move to more favorable parts of the river. Displacement  
24 downstream into the cooler and more productive parts of the estuary is likely not bad  
25 for displaced salmon smolts.

17 Floodplain Habitat Not Accompanied by High Flow Does Not Appear to Result  
18 in Increased Chinook Salmon Ocean Survival and May Not Improve Survival of  
19 Sacramento River Juvenile Chinook Salmon Migrating to the Ocean

20 In the study titled “Floodplain Rearing of Juvenile Chinook Salmon: Evidence  
21 of enhanced growth and survival” by Sommer, et al. (2001), a copy of which is Exhibit  
22 SDWA-180-Pt2, tests were conducted in the Yolo Bypass in 1998 and 1999. The study  
23 concluded that during such years salmon increased in size substantially faster in the  
24 seasonally inundated agricultural floodplain than in the river, suggesting better growth  
25 rates. The study, however, provides: “Survival indices for coded-wire-tagged groups  
26 were somewhat higher for those released in the floodplain than for those released in the  
27 river, but the differences were not statistically significant. Growth, survival, feeding  
28 success, and prey availability were higher in 1998 than in 1999, a year in which flow  
was more moderate indicating that hydrology affects the quality of floodplain rearing  
habitat”. (Exhibit SDWA-180-Pt2, pg. 1.)

In the discussion the authors provide:

1 “Mean length increased faster in the Yolo Bypass during each  
2 study year, and CWT fish released in the Yolo Bypass were  
3 larger and had higher apparent growth rates than those released  
4 in the Sacramento River. It is possible that these observations  
5 are due to higher mortality rates of smaller individuals in the  
6 Yolo Bypass or of larger individuals in the Sacramento River;  
7 however we have no data or reasonable mechanism to support  
8 this argument.”

9 “Elevated Yolo Bypass survival rates are also consistent with  
10 significantly faster migration rates in 1998, the likely result of  
11 which would be reduced exposure time to mortality risks in the  
12 delta, including predation and water diversions.”

13 In the study “Habitat Use and Stranding Risk of Juvenile Chinook Salmon on a  
14 Seasonal Floodplain” by Sommer, et al. (2004), a copy of which is Exhibit SDWA-181-Pt2,  
15 the-authors build upon the above study with further testing in 2000 and present their analysis of  
16 ocean survival.

17 The author’s abstract provides:

18 “Although juvenile Chinook salmon *Oncorhynchus tshawytscha*  
19 are known to use a variety of habitats, their use of seasonal  
20 floodplains, a highly variable and potentially risky habitat, has  
21 not been studied extensively. Particularly unclear is whether a  
22 seasonal floodplain is a net “source” or net “sink” for salmonid  
23 production. . . . Adult ocean recoveries of tagged hatchery fish  
24 indicate that seasonal floodplains support survival at least  
25 comparable with that of adjacent perennial river channels. These  
26 results indicate that floodplains appear to be a viable rearing  
27 habitat for Chinook salmon, making floodplain restoration an  
28 important tool for enhancing salmon production. (Emphasis  
added.)

The data provided for ocean survival is as follows:

Table 1. – Number of coded wire tags recovered in the ocean and  
commercial fisheries for Chinook salmon released in the Yolo  
Bypass and Sacramento River. The total number of tagged fish  
released in each location for each year is shown in parentheses.  
The survival ration is calculated as the number of Yolo Bypass  
recoveries divided by the number of Sacramento River  
recoveries.

Release Group	1998 (53,000)	1999 (105,000)	2000 (55,000)
Yolo Bypass	75	136	27
Sacramento River	35	138	47
Survival Ration	2.14	0.99	0.57

In 1998 Yolo Bypass looked like a benefit, in 1999 it was a push and in 2000 Yolo Bypass looked like a detriment.

It is assumed that shaded river aquatic habitat is desirable for special status fish. Attention is called to the BDCP Draft Chapter 8 which puts forth the need to control predators by removing structures which affect flow fields and provide shade. The focus appears to be on abandoned docks, pilings and the like, however, shaded river aquatic habitat can provide the same effect on flow and provide shade. The impact of shaded river aquatic habitat on special status fish is unclear.

There are a number of significant adverse impacts associated with so-called restoration of tidal floodplain habitat within the Delta which have not been objectively considered or mitigated.

In the Delta where the waters are tidal the proposed habitat restoration is not necessarily floodplain but rather is tidal wetlands which is inundated most if not all the time.

Increased salinity intrusion could result from the increased tidal prism and/or creation of shortened pathways to the interior Delta and particularly to the large DWP and CVP intakes whether in the north Delta or south Delta.

Setting back, breaching, degrading and/or not restoring levees in the Delta has significant adverse impacts.

Increases in the tidal prism at locations in portions of the Delta could induce salinity intrusion and in the case of the lower Yolo bypass cause advection adversely affecting the out migration of salmon smolts some of which are endangered.

The regularly or permanently inundated areas constitute increased habitat for predator species and increase ambush locations affecting the fish species of concern. The increase in water surface and wetland vegetation will greatly increase the evaporation and evapotranspiration of fresh water. In many cases there is an increased threat of flooding to surrounding areas due to increased fetch and wave action across the habitat area and increased seepage into adjoining levees and lands.

There is also the harm to and loss of agricultural land and production.

Exhibit SDWA-182-Pt2 contains excerpts from the April 2011 report by Dave Vogel titled "Insights into the Problems, Progress, and Potential Solutions for Sacramento River Basin Anadromous Fish Restoration". The report was prepared for

1 the Northern California Water Association and Sacramento Valley Water Users and  
2 contains the results of studies which include the Liberty Island Ecological Reserve area.  
3 (The entire study can be viewed on the Northern California Water Association website  
4 by clicking on "Fisheries")

4 At pages 112 and 113 the report provides:

5 Subsequent, additional juvenile salmon telemetry studies were  
6 conducted by Natural Resource Scientists Inc. on behalf of the USFWS  
7 and CALFED in the north Delta (Vogel 2001, Vogel 2004). Triangulating  
8 radio-tagged fish locations in real time (Figure 61) clearly demonstrated  
9 how juvenile salmon move long distances with the tides and were  
10 advected into regions with very large tidal prisms, such as upstream into  
11 Cache Slough and into the flooded Prospect and Liberty Islands (Figure  
12 62). During the studies, it was determined that some radio-tagged salmon  
13 were eaten by predatory fish in northern Cache Slough, near the levee  
14 breaches into flooded islands (discussed below).

12 At page 120 the report provides:

13 During recent years, there has been an emphasis to reclaim or  
14 create shallow, tidal wetlands to assist in re-creating the form and  
15 function of ecosystem processes in the Delta with the intent of benefitting  
16 native fish species (Simenstad et al. 1999). Among a variety of measures  
17 to create such wetlands, Delta island levees either have been breached  
18 purposefully or have remained unrepaired so the islands became flooded.  
19 A recent example is the flooding of Prospect Island which was  
20 implemented under the auspices of creating shallow water habitat to  
21 benefit native fish species such as anadromous fish (Christophel et al.  
22 1999). Initial fish sampling of the habitat created in Prospect Island  
23 suggested the expected benefits may not have been realized due to an  
24 apparent dominance of non-native fish (Christophel et al. 1999).  
25 Importantly, a marked reduction of sediment load to the Delta in the past  
26 century (Shvidchenko et al. 2004) has implications in the long-term  
27 viability of natural conversion of deep water habitats on flooded Delta  
28 islands into shallow, tidal wetlands. The very low rates of sediment  
accretion on flooded Delta islands indicate it would take many years to  
convert the present-day habitats to intertidal elevations which has  
potentially serious implications for fish restoration (Nobriga and  
Chotkowski (2000) due to likely favorable conditions for non-salmonid  
fish species that can prey on juvenile salmon. Studies of the shallow water  
habitats at flooded Delta islands showed that striped bass and largemouth  
bass represented 88 percent of the individuals among 20 fish species  
sampled (Nobriga et al. 2003).



1           There have likely been significant adverse, unintended  
2 consequences of breaching levees in the Delta. There is a high probability  
3 that site-specific conditions at the braches have resulted in hazards for  
4 juvenile anadromous fish through the creation of favorable predator  
5 habitats. The breaches have changed the tidal prisms in the Delta and can  
6 change the degree in which juvenile fish are advected back and forth with  
7 the tides. (Figure 61; previously discussed). Additionally, many of the  
8 breaches were narrow which have created deep scour holes favoring  
9 predatory fish. Sport anglers are often seen fishing at these sites during  
10 flood or ebb tides. Breaching the levees at Liberty Island is an example  
11 (Figure 72 and 73). Recent acoustic-tagging of striped bass in this vicinity  
12 confirmed a high presence of striped bass (Figure 74, D. Vogel, unpub.  
13 data.)

14           The increased loss of fresh water due to creation of tidal and wetland habitat is clear.  
15 Exhibit SDWA-183-Pt2 is Table A-5 from DWR Bulletin 168, October 1978 shows the annual  
16 Et values for various crops and for Riparian Vegetation and Water Surface. The Riparian  
17 Vegetation and Water Surface 67.5 inches can be compared to tomatoes 33.8 inches and alfalfa  
18 46.0 inches. The increased fresh water loss is from 33.7 inches when compared tomatoes and  
19 21.5 when compared to alfalfa. The increased loss of fresh water is particularly significant in  
20 drier years.

21           The Division of Water Resources (predecessor to The Department of Water Resources)  
22 in the Sacramento – San Joaquin Water Supervisor's report for the year 1931 dated August  
23 1932 and designated Bulletin 23 (Exhibit DWR-22) includes the results of studies of water  
24 consumption of tules and cat-tails Exhibit DWR-22 includes Tables 69, 74, 75 and 77 from  
25 such report. Consumptive use for open water surface is shown as 4.91 acre feet per acre, tules  
26 at 9.63 acre feet per acre, and alfalfa at 3.51 acre feet per acre. To examine the relatively high  
27 consumptive use for tules the U.S. Department of Agriculture undertook a continuation of the  
28 study of consumptive use for asparagus, tules and cat-tails. The tables show an average of  
14.63 acre feet per acre for cat-tails and 13.48 acre feet per acre for tules. Results from cat-  
tails and tules grown in tanks at Camp 3, King Island for 1931 are shown in Table 77. The  
results for normal sized tules was 8.0 acre feet per acre.

21           **CONSTRUCTION RELATED IMPACTS AND IMPACTS TO FLOW AND WATER**  
22 **QUALITY UNREASONABLY AFFECTING FISH, WILDLIFE OR RECREATIONAL**  
23 **USES OF WATER, OR OTHER PUBLIC RESOURCES AND WHETHER THE PROPOSED**  
24 **CHANGES ARE IN THE PUBLIC INTEREST OVERLAP WITH INJURY TO LEGAL**  
25 **USERS OF WATER**

26           Protection of the Delta is mandated through multiple laws some of which have been the  
27 subject of litigation involving parties to this proceeding including DWR and the SWRCB.

28           Water Code Sections 12200 through 12205 sometimes referred to as The Delta  
Protection Act or Delta Protection Act of 1959 was interpreted by Third Appellate Court of the  
State of California in the case of United States vs. State Water Resources Control Board 182  
Ca.App.3d 82 (1986). At page 139 the court concluded:

1  
2 “In 1959, when the DWP was authorized, the Legislature enacted  
3 the Delta Protection Act. (§§ 12200-12220.) The Legislature  
4 recognized the unique water problems in the Delta, particularly  
5 ‘salinity intrusion,’ which mandates the need for such special  
6 legislation ‘for the protection, conservation, development, control  
7 and use of the waters in the Delta for the public good.’ (§ 12200.)  
8 The act prohibits project exports from the Delta of water necessary  
9 to provide water to which Delta users are ‘entitled’ and water  
10 which is needed for salinity control and an adequate supply for  
11 Delta users. (§§ 12202, 12203, 12204.)” (Emphasis added)

12  
13 Section 12201 provides that an adequate supply is a supply sufficient to  
14 maintain and expand agriculture, industry, urban, and recreational development in  
15 the Delta.

16 As related to the Tunnels or any other isolated conveyance facility, the requirements of WC  
17 12205 are particularly relevant.

18  
19 “It is the policy of the State that the operation and management of  
20 releases from storage into the Sacramento- Joaquin Delta of water  
21 for use outside the area in which such water originates shall be  
22 integrated to the maximum extent possible to permit fulfillment of  
23 the objectives of this part.”

24  
25 The objectives include salinity control and an adequate water supply. Conveyance of  
26 stored water through tunnels to the export pumps without provision of salinity control and an  
27 adequate water supply in the Delta would not comply.

28  
29 The December 1960 DWR Bulletin 76 (Exhibit SDWA-169) which includes a  
30 contemporaneous interpretation by DWR of Water code Section 12200 through 12205 provides  
31 at page 12:

32  
33 “In 1959 the State Legislature directed that water shall not be diverted from the Delta  
34 for use elsewhere unless adequate supplies for the Delta are first provided. (Emphasis added.)

35  
36 Similarly the DWR confirmed its interpretation of law in the contract between the State  
37 of California Department of Water Resources and the North Delta Water Agency For the  
38 Assurance of a Dependable Water Supply of Suitable Quality dated January 28, 1981, which  
39 provides:

40  
41 “(d) The construction and operation of the FCVP and SWP at  
42 times have changed and will further change the regimen of rivers  
43 tributary to the Sacramento-San Joaquin Delta (Delta) and the  
44 regimen of the Delta channels from unregulated flow to regulated  
45 flow. This regulation at times improves the quality of water in the

1 Delta and at times diminishes the quality from that which would  
 2 exist in the absence of the FCVP and SWP. The regulation at  
 3 times also alters the elevation of water in some Delta channels.”

4 “(f) The general welfare, as well as the rights and requirements of  
 5 the water users in the Delta, require that there be maintained in the  
 6 Delta an adequate supply of good quality water for agricultural,  
 7 municipal and industrial uses.”

8 “(g) The law of the State of California requires protection of the  
 9 areas within which water originates and the watersheds in which  
 10 water is developed. The Delta is such an area and within such a  
 11 watershed. Part 4.5 of Division 6 of the California Water Code  
 12 affords a first priority to provision of salinity control and  
 13 maintenance of an adequate water supply in the Delta for  
 14 reasonable and beneficial uses of water and relegates to lesser  
 15 priority all exports of water from the Delta to other areas for any  
 16 purpose.” (Emphasis added.) (See Exhibit DWR-306.)

17 In SWRCB D-1485 Exhibit SWRCB-23 at page 9 the SWRCB ruled:

18 “The Delta Protection Act accords first priority to satisfaction of  
 19 vested rights and public interest needs for water in the Delta and  
 20 relegates to lesser priority all exports of water from the Delta to  
 21 other areas for any purpose.”

22 Water Code Section 11460 provides:

23 **11460. Prior right to watershed water**

24 In the construction and operation by the department of any  
 25 project under the provisions of this part a watershed or area  
 26 wherein water originates, or an area immediately adjacent thereto  
 27 which can conveniently be supplied with water therefrom, shall not  
 28 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. (Added by Stats. 1943, c.  
 370, p. 1896. Amended by Stats. 1957, c. 1932, p. 3410, '296.)

The Delta Reform Act of 2009 includes provisions intended to provide additional protection and enhancement for the Delta. In Water Code Section 85031 it is made clear that the Delta Reform Act does not limit or otherwise affect the application of Water Code Sections 11460 and 12200 to 12220 inclusive. Water Code Section 85054 confirms the requirement for enhancement of the unique cultural, recreational, natural resource, and agricultural values of

1 the Delta. Water Code Section 85021 requires reduced reliance on the Delta for future water  
2 supply needs.

3 The inclusion of protection and enhancement of fish, wildlife, recreation and public resources  
4 values in addition to uses of water is clear.

5 **The Delta Protection Act of 1992 provides:**

6 “The Legislature finds and declares that the Sacramento-San Joaquin Delta is a  
7 natural resource of statewide, national, and international significance,  
8 containing irreplaceable resources, and it is the policy of the state to recognize,  
9 preserve, and protect those resources of the delta for the use and enjoyment of  
current and future generations.” (Pub. Resources Code, § 29701, emphasis  
added.)

10 “The Legislature further finds and declares that the basic goals of the state for  
11 the delta are the following: (b) Protect, maintain, and, where possible, enhance  
12 and restore the overall quality of the delta environment, including, but not  
13 limited to, agriculture, wildlife habitat, and recreational activities” (Pub.  
Resources Code, § 29702, emphasis added.)

14 “The Legislature further finds and declares as follows:

15 (a) The delta is an agricultural region of great value to the state and nation and  
16 the retention and continued cultivation and production of fertile peatlands and  
prime soils are of significant value.

17 (b) The agricultural land of the delta, while adding greatly to the economy of the  
18 state, also provides a significant value as open space and habitat for water fowl  
19 using the Pacific Flyway, as well as other wildlife, and the continued dedication  
20 and retention of that delta land in agricultural production contributes to the  
preservation and enhancement of open space and habitat values.

21 (c) Agricultural lands located within the primary zone should be protected from  
22 the intrusion of nonagricultural uses.” (Pub. Resources Code, § 29703,  
emphasis added.)

23  
24  
25 **Water Code Section 12981 provides:**

26 “The Legislature finds and declares that the delta is endowed with many  
27 invaluable and unique resources and that these resources are of major statewide  
significance.” (Wat. Code, § 12981, subd. (a), emphasis added.)

28 “The Legislature further finds and declares that the delta's uniqueness is

1 particularly characterized by its hundreds of miles of meandering waterways  
 2 and the many islands adjacent thereto; that, in order to preserve the delta's  
 3 invaluable resources, which include highly productive agriculture, recreational  
 4 assets, fisheries, and wildlife environment, the physical characteristics of the  
 5 delta should be preserved essentially in their present form; and that the key to  
 6 preserving the delta's physical characteristics is the system of levees defining  
 7 the waterways and producing the adjacent islands. However, the Legislature  
 8 recognizes that it may not be economically justifiable to maintain all Delta  
 9 Islands (Wat. Code, § 12981, subd. (b), emphasis added.)

7 THE OBJECTIVE OF WATERFIX IS TO ELEVATE THE EXPORT OF  
 8 WATER OVER THE LEGALLY MANDATED PRIORITIES FOR PROVIDING  
 9 WATER TO WHICH DELTA USERS ARE ENTITLED AND WATER WHICH IS  
 10 NEEDED FOR SALINITY CONTROL AND AN ADEQUATE SUPPLY FOR DELTA  
 11 USERS.

11 The stated threat to water exports is identified as levee failures and the supposition is  
 12 that 20 islands could suffer simultaneous breaks due to earthquake in dry conditions such that  
 13 salinity intrusion could prevent the export of water for up to three years. See CEQA Findings  
 14 of Fact and Statement of Overriding Considerations Exhibit SWRCB-110 pages 17-19. Under  
 15 conditions of significant salinity intrusion whether 1 or 20 island levee breaks occur the Delta  
 16 would need water for salinity control and an adequate supply. If such was not provided no  
 17 export is allowed. If export took place in violation of law the water remaining available may  
 18 not be sufficient to restore salinity control and an adequate water supply to allow for local  
 19 funding of levee restoration, maintenance and land restoration such that the islands would be  
 20 lost and the adverse impacts would continue and expand. Because development in the primary  
 21 zone of the Delta is primarily restricted to agriculture the ability to pay for levees and drainage  
 22 is greatly dependent on adequate water quality and supply for agriculture. WaterFix will result  
 23 in significant degradation of water quality even in the absence of levee breaks. See Exhibits  
 24 SWRCB-102 Appendix 8H Tables EC-15A, 15B and 15C.

## 21 DELTA LEVEES ARE A SYSTEM INTERRELATED FOR SURVIVAL

23 Exhibit SDWA 307 is the 9/15/83 Flood Hazard Mitigation Plan Executed by FEMA, the State  
 24 and others recognizing the individual island and tract levees as part of the larger system  
 25 comprising all the levees in the Delta. WaterFix ignores the critical interrelationship of the  
 26 individual island and tract levee systems. Interrelating factors include seepage into adjoining  
 27 levees and lands, wind generated waves across flooded areas impacting habitat and adjoining  
 28 levees, impacts on infrastructure, loss of meandering waterways protected from the wind for  
 recreation, loss of meandering waterway riparian habitat, destruction of terrestrial habitat,  
 drowning and displacement of terrestrial species, predation and stranding of fish species, loss  
 of critical habitat for wintering waterfowl, water quality degradation due to spreading of  
 contaminants, generation of methyl mercury, production of harmful algal blooms and the

1 related toxins, increased water temperature, production of undesirable aquatic vegetation,  
2 propagation of vectors such as mosquitoes and the impacts of vector control chemicals,  
3 contamination of land from contaminants in the flood waters including those from upstream  
4 hazardous sites, flooded wastewater treatment facilities and wastewater pipelines, increased  
5 evaporative loss of fresh water, increased salinity intrusion due to increases in the tidal prism  
6 or shortening the path for salinity to reach the various diversion facilities, damage to crops,  
7 land improvements and structures and damage to the sustainability of agriculture in the  
8 region. The levees on various islands are critical to the efficient conveyance of water through  
9 the Delta channels and including when implementing armored corridor emergency actions.

10 WaterFix is a program for destruction rather than enhancement of the Delta and the  
11 surrounding region. The plan to make a huge investment in isolated conveyance without a  
12 sound Delta levee program rather than invest a significantly lower sum in Delta levees and  
13 self-sufficiency ignores the real consequences of levee failures. WaterFix ignores the fact that  
14 the levee system will remain critical to the control of salinity and availability of water for  
15 export even with WaterFix.

16 DWR'S Delta Risk Management Strategy Executive Summary Exhibit SDWA 308 at page 4  
17 provides:

18 "The Delta Region is vital to California's economy and environment. The region contains  
19 highly fertile agricultural land and provides a unique estuarine habitat for many resident and  
20 migratory fish and birds some of which are threatened or endangered. The Delta Region  
21 contains critical infra structure including pipelines, state highways and power and  
22 communication lines. The region is the hub of the state's water supply system, which is  
23 critical to the state's economy."

24 At page 6:

25 "A massive failure of the Delta Region's levee system would have significant adverse effects  
26 on the Delta Region and California's economy. Levee failure risks evaluated in the DRMS  
27 analysis include seismic, high water and dry-weather levee failures."

28 If a major earthquake occurs, levees would fail and as many as 20 islands could be flooded  
simultaneously. This would result in fatalities and economic costs and impacts of \$15 billion  
or more in 2005 dollars. (SDWA 308 page 2). The emergency repairs could cost up to \$2.3  
billion. (SDWA 308 page 11)

Exhibit SDWA 197 which is Table 7-8 of the Delta Risk Management Strategy (DRMS) Phase 1  
Impact to Infrastructure Final

[http://www.water.ca.gov/floodmgmt/dsmo/sab/drmsp/docs/impact to Infrastructure TM.](http://www.water.ca.gov/floodmgmt/dsmo/sab/drmsp/docs/impact%20to%20Infrastructure%20TM)

1 pdf) provides that within 100-year Flood Limits the replacement costs of Delta infrastructure  
2 in 2005 dollars is \$56.3 billion and in 2050 dollars is \$67.1 billion.

3 Putting aside the illegality of the WaterFix proposed actions the resulting consequence of the  
4 WaterFix detrimental impact on delta levees is certainly not in the public interest. There is no  
5 clear proposed real mitigation and no funding.

6 The loss of life resulting from the loss of emergency evacuation routes for the entire region  
7 which is not limited to emergencies such as floods and earthquakes but could include rogue  
8 nation and terrorist attacks has not been adequately examined and is not mitigated.

9 EARTHQUAKE RISK TO THE EXPORT PUMPING PLANTS AND HUNDREDS OF MILES OF  
10 CANALS AND PIPELINES MAKES COMPLIANCE WITH REDUCED RELIANCE AND  
11 SELF\_SUFFICIENCY REQUIREMENTS AND DENIAL OF THE WATERFIX PETITION ESSENTIAL TO  
12 PROTECT THE PUBLIC INTEREST AND PUBLIC TRUST

13 Exhibit SDWA 192 Extracts from the USACE May 23, 2007 comments on the Delta Risk  
14 Management Strategy predictions of levee failures from seismic and flood related events  
15 points out the speculation due to the lack of historical support and less active faults in the  
16 proximity of the delta levees.

17 Exhibit SDWA 188 which is Figure 9-5 from SWRCB 102 shows that active surficial faults  
18 parallel in close proximity to and intersecting the export facilities of the projects in contrast to  
19 the blind faults that underlie the Delta. Exhibit SDWA 190 which shows the faults under the  
20 SWP Edmondston pumping plant pipelines crossing the Tehachapi Mountains into Southern  
21 California is taken from "The Big Lift: A Photo Tour of the State Water Project's Edmonston  
22 Pumping Facilities" which is on the web and can be accessed with Google "Edmonston  
23 Pumping Plant". Exhibit SDWA 306 consisting of 5pages shows representative SWP  
24 Facilities south of the delta that are vulnerable to seismic risk. The slides are from a slide  
25 show located on the web with Google- Water Education Foundation State Water Project. In  
26 addition to pumping plants, canals and pipelines there are electricity transmission lines,  
27 transformer stations, the San Luis Dam and reservoir and other facilities at risk to  
28 earthquakes.

29 It is obvious that avoidance of the threat of earthquake damage to levees in the Delta  
30 does not eliminate the earthquake threat to the hundreds of miles of canals, pipelines,  
31 pumping plants and electrical facilities used to divert and transport water from the Delta to  
32 areas south of the Delta and self-sufficiency using locally available water is in the public  
33 interest.

34 Petitioners contend a sea-level rise as another reason to isolate the conveyance of  
35 Sacramento River from the Delta pool for export to the south. Adequate analysis has not been  
36 presented as to the likely extent of sea level rise impacting the Delta. Exhibit SDWA-193 is a  
37 copy showing the earth from Google Maps. The earth is not shown as flat and the evidence

1 must relate to conditions at the Delta and not at San Francisco Golden Gate or other points in  
2 the world. The comparison between mean sea level at the Golden Gate and that at Alameda  
3 indicates that short term surges or rises are dampened when spread across the bays and more  
4 dampening should occur on the way to the Delta. Of equal importance is the recognition that  
5 sea level rise varies with location and is impacted differently by the time duration of surges and  
6 likely winds, ocean currents and changes in the earth surface. Exhibit SDWA-194 shows the  
7 mean sea level trend for the Golden Gate, Alameda, Juneau Alaska and Pietarsaari, Finland.  
8 Exhibit SDWA-195 contains plots from the NOAA website showing sea level rise and fall  
9 arrows reflecting degree for various parts of the earth. It is apparent that sea level is site  
10 specific. Most Delta agricultural levees incorporate 18 inches of freeboard and many are being  
11 built with wider crowns to accommodate greater freeboard in the future. A more careful  
12 analysis of sea level impact in the Delta is merited. The July 26, 2016 CVFPP climate change  
13 briefing plot of actual sea level rise, San Francisco includes a 33 year Gaussian average which  
14 appears to be flattening out. See Exhibit SDWA-196.

#### 10 DELTA LEVEES ARE ADVERSELY IMPACTED BY CONSTRUCTION 11 RELATED IMPACTS AND TUNNEL OPERATION

12 The construction period reportedly could take over 10 and perhaps as long as 15 years.

13 Water escaping from the tunnels and tunnel related facilities whether by leakage,  
14 seepage, rupture or other cause could adversely impact levees, lands and drainage facilities  
15 within the islands and tracts. Seismic forces, water hammer and design and construction  
16 defects are all real threats. The tunnel construction with the separate precast panel liner design  
17 presents added opportunity for joint related failure.

18 Dewatering could cause settlement if slurry walls do not achieve a complete seal. Lands  
19 and levees could be adversely impacted.

20 Fractures of the soil including the foundation beneath the levees due to pressures created  
21 in the boring process including grouting to fill voids between the tunnel liner and the native  
22 soil could occur.

23 While it is indisputable that a levee failure anywhere within the vicinity of the proposed  
24 new conveyance facilities would rank among the highest of impacts on the significance scale  
25 and would be devastating to both the environment as well as to humans (not to mention to the  
26 construction of those facilities), the WaterFix analyses is limited and inadequate as to the  
27 potential for the construction to undermine the integrity of the numerous levees that such  
28 construction will directly and indirectly impact.

Two of the many potentially significant impacts on levee integrity which have thus far  
not been adequately investigated, discussed or analyzed, much less mitigated, include: (1) the  
tunnel boring machines' potential impacts on levee integrity; and (2) the impacts on levee  
integrity from the extensive dewatering of groundwater to facilitate the construction of the  
conveyance facilities.



1           Petitioners acknowledge:

2           “Localized settlement could occur during construction of BDCP water conveyance  
3 facilities. In particular, settlement above tunnels could occur in response to removal of earth  
4 materials at the tunnel face, convergence of voids created around the tunnel excavation, and  
5 stress redistribution around the excavated tunnel. The magnitude and extent of ground  
6 settlement depends on the excavated diameter of the tunnel, the amount of ground cover above  
7 the tunnel, excavation methods, workmanship, details of tunnel construction, and the  
8 geotechnical properties of the ground.” (Exhibit SWRCB 102, Appendix 3B p. 3B-15)

9           Analysis and mitigation is deferred and the potential for change of boring method  
10 remains.

11           WaterFix barge and tug boat traffic will interfere with the local levee operation,  
12 maintenance and rehabilitation work and emergency response. The opportunity for tug and  
13 barge operation damage to levees will greatly increase. Propeller wash from tugs when directed  
14 towards levees can displace quarry stone and cause significant levee erosion. Barges can break  
15 loose from the tug and when impacting a levee cause it to fail. Increased wave wash will also  
16 increase levee erosion and risk to smaller vessels. The increased waterway boat traffic and  
17 channel obstruction especially during periods of fog will create a greater safety hazard for both  
18 commercial and recreational vessels.

19           WaterFix road traffic will greatly interfere with levee work related traffic as well as  
20 the use by farmers, fishermen and school buses. The rural roads have stretches which are  
21 narrow and where fishermen congregate only one vehicle can pass. Some are unmaintained  
22 county roads. Others suffer from foundation settlement and rapid surface deterioration. Where  
23 the roads are on the levees or on soft foundations the additional truck traffic loads will  
24 accelerate settlement. Although not uniform the settlement will require repair and in the case  
25 of levees the maintenance of adequate freeboard will be jeopardized. With more traffic there  
26 will be more accidents especially in the fog.

27           Much of the electricity to operate the tunnel boring machines and other construction  
28 related equipment will be transmitted through the local lines and transformer stations which  
serve the island drainage facilities. Operation of the drainage systems is critical to keeping the  
lands dry and the levees stable. The current systems are impacted by weather related  
interruption and bird strikes. The additional power lines to serve the construction will greatly  
increase the opportunity for bird strikes and other power interruptions. The additional power  
demand may also affect the reliability of service.

#### 29           **CONSTRUCTION RELATED IMPACTS TO TERRESTIAL SPECIES HAVE NOT 30 BEEN ADEQUATELY DESCRIBED OR CONSIDERED**

31           The project runs through the heart of the wintering grounds for waterfowl of the  
32 Pacific Flyway. Thousands of ducks and geese together with Sandhill cranes, swans, and other  
33 species winter on Staten Island, Bouldin Island, Venice Island, Mandeville Island, Bacon  
34 Island, Woodward Island and Victoria Island which are all along the tunnel construction path.  
Increased activity, noise, lights, power lines, contaminants and the loss of food supply caused

1 by the damage to grain crop production and managed wetland habitat lasting 14 years or longer  
2 will result in a huge unmitigatable loss to waterfowl and other wildlife, some of which are  
3 endangered. The direct damage extends to agriculture, to the historic recreational hunting, to  
4 bird watching and to others who enjoy the outdoors and see nature in its glory. Certainly it is  
not in the public interest or supportive of the public trust to cause such damage to build more  
houses, lakes and golf courses in the desert when self-sufficiency alternatives are available.

5 Exhibit SDWA 309 is Figure M13-4 sheets 3-6 of SWRCB 102 which shows the  
6 proposed location of the tunnels, powerlines, tunnel spoil sites and other features along the  
7 modified alignment for Alternative 4. Exhibit SDWA 310 is Figure M12-4 sheets 3-6 of  
8 SWRCB 102 which shows the distribution of Natural Communities along the modified  
9 alignment for Alternative 4. SDWA 311 is Figure 12-2 of SWRCB 110 which shows essential  
10 Habitat connectivity extending over Staten, Bouldin, Venice and Mandeville islands. SDWA  
11 312 is Figure 12-21 and 12-22 of SWRCB 110 showing Greater Sandhill Crane Distribution  
12 and Habitat and Lesser Sandhill Crane Distribution and Habitat along the tunnel alignment.  
13 SDWA 313 is figure 23A-04 of SWRCB 110 showing Construction Noise Contours for the  
14 tunnel construction. It is apparent that the tunnel alignment will run through some of the most  
15 critically important habitat in the Delta.

16 **THE WATERFIX FAILS TO PROVIDE GOOD FAITH CONSIDERATION OF**  
17 **IMPACTS, ALTERNATIVES AND MITIGATION RELATING TO WATERFOWL**  
18 **INCLUDING THOSE OF INTERNATIONAL IMPORTANCE IN THE PACIFIC**  
19 **FLYWAY**

20 The Delta is an important wintering ground for waterfowl of the Pacific Flyway  
21 including Sandhill Cranes. The routing for alternative 4 (4A) passes through the heart of the  
22 wintering grounds for such waterfowl. The fourteen years of construction activity and  
23 presence of electrical transmission lines will result in short and long term adverse impacts not  
24 adequately addressed. Suggested avoidance and minimization measures and mitigation has not  
25 been demonstrated to be adequate. Land use in the Delta primary zone is highly restricted and  
26 much of the land is not suitable for vineyards and orchards. The lands are already available  
27 habitat. The mitigating effect of so-called compensation for the loss of foraging and nesting  
28 habitat has not been demonstrated. Preserving habitat that is already available does not provide  
no net loss.

The analysis does not appear to have adequately considered impacts to Sandhill Cranes  
in Delta areas, including Bouldin Island, Mandeville Island and others. The proposed tunnel  
material disposal site on Bouldin Island will greatly impact Sandhill Crane winter foraging  
habitat on the island for 14 years or more. See SDWA 312 and Sheet 4 in SDWA 310.

The tunnel construction disturbance and electric transmission lines crossing Mandeville  
Island and others will adversely impact migrating waterfowl, including Sandhill Cranes during  
the winter and will adversely impact important wetland nesting areas for other waterfowl and a  
large number of other terrestrial species. See SWRCB 310. Mandeville Island contains the  
multi-thousand acres of wetland and waterfowl management areas of the Tuscan Research  
Institute, for which the adverse impacts have not been adequately considered. Bouldin,  
Venice, Mandeville, Bacon and Woodward Islands comprise a significant part of the wintering

1 grounds for waterfowl of the Pacific Flyway and are irreplaceable. SDWA 313 shows the  
2 noise contours for Intake Construction, Pile Driving, Surface Construction and Utility  
3 Construction including a slightly reduced contour for "nighttime hours only-10:00 pm to 7:00  
4 am. The multiple years (up to 15 years) of construction activity will drive the wildlife from  
5 these critically important areas. There will also be continuous disturbance from operation and  
6 maintenance of the facilities. The remoteness of these areas lends greatly to their value for  
7 habitat and recreational hunting.

8  
9 The killing of Sandhill cranes and other birds due to the presence of electrical  
10 transmission lines in the existing wintering areas is not adequately offset by actions in other  
11 areas since the obligation for such avoidance of take is already an obligation of those operating  
12 the systems in such areas and such other areas are not comparably used by wildlife.

13  
14 The WaterFix must be denied because its construction and proposed operation is  
15 contrary to law, would injure legal users of water, unreasonably harm fish, wildlife and  
16 recreation, violate public trust and is in no way in the public interest.

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Dated November 30, 2017

  
Dante John Nomellini Sr