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17	BEFORE THE		
18	CALIFORNIA STATE WATER RESOURCES CONTROL BOARD		
19	HEARING IN THE MATTER OF		
20	CALIFORNIA DEPARTMENT OF WATER RESOURCES AND UNITED STATES	WRITTEN REBUTTAL TESTIMONY OF MARC DEL PIERO -REVISED	
21	BUREAU OF RECLAMATION		
22	REQUEST FOR A CHANGE IN POINT OF DIVERSION FOR CALIFORNIA WATER		
23	FIX		
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I, Marc Del Piero, declare:

I am an attorney, licensed to practice law in the State of California since 1980 (CA. Bar #91644). During the course of my professional career and during the last three decades, my public sector and private activities, employment, and practice have encompassed broad and complex issues related both to the law of water rights and water quality issues within California. I received both a Bachelor of Arts degree in History, with emphasis on California history, and a Juris Doctorate (J.D.) from Santa Clara University in 1975 and 1978, respectively. In 1981, I was elected to the Monterey County Board of Supervisors, and in that capacity served from 1981-1992 as a member, and twice as Chair, of the Board of Directors of the Monterey County Water Resources Agency, the largest surface water rights (appropriative rights) holder within that jurisdiction. During my tenure, I personally wrote and implemented many County land use plans and policies mandating the protection and preservation of surface water and groundwater resources, protected coastal wetlands, endangered species, and prime and productive agricultural lands. The vast majority of these mandatory policies remain in full force and effect within that jurisdiction. Additionally, during my tenure in that position, I served from 1981-1986 as the Monterey County Board of Supervisors' appointee to the local agency board of the San Felipe Division of the Central Valley Project (CVP).

From 1992-2011, I also served as an adjunct instructor at the Santa Clara University School of Law where I team taught water law.

From 1992-1999, I served as the Vice-Chair of the State Water Resources Control Board (SWRCB). In 1992 and 1993, while I was serving on the SWRCB, we came very close to adopting a Water Rights Decision (Draft Decision 1630) that would have addressed many if not all of those desired outcomes sought for the Delta today. I supported that draft and its policies. However, the then-administration intervened to keep the Board majority from adopting the draft decision, which subsequently led to adoption of the Bay Delta Accord in 1994, followed by the establishment of the CalFED process, and the DWR-initiated "Monterey Amendments" to the State Water Project ("SWP") contracts. These band-aid, compromise

actions clearly failed to keep the promise of "balance" and to protect the public trust resources in the Delta. Further, the condition of the Delta, its eco-systems, its environmental and agricultural resources, and its endangered species became even worse by the actions of a subsequent administration that allowed DWR to increase real exports from the Delta in 2001 that pushed the ecosystem into near collapse by 2007. The intervening years have brought no improvement to the crisis in the Delta in spite of DWR's often repeated, but undelivered, promises of "no changes" in their operations.

I am testifying as an expert based upon my personal and special knowledge, personal experiences, practice and education about the California law of water rights and water quality issues as they relate to the Delta, and about the rights, mandated duties, and legal obligations (both met and unmet) of the water rights holders whose diversions of water directly and significantly impact the environmental, public trust, agricultural, and potable water supplies of the Sacramento-San Joaquin Delta. My Statement of Qualifications is being submitted concurrently herewith. (See SJC-77, Qualifications of Marc del Piero.)

My testimony will respond to and rebut assertions made in the testimony of Petitioners' witnesses, including but not limited to Maureen Sergent, Jennifer Pierre and John Berdnarski. My testimony will rebut Petitioners' statements about whether the Petition constitutes a request for a new water right (DWR-53, Testimony of Maureen Sergent, pp. 9-10; DWR-51, Testimony of Jennifer Pierre, pp. 10-14) and testimony on DWR's conclusion that granting the Petition would not harm any legal users of water (DWR-53, Testimony of Maureen Sergent, pp. 10-15; DWR-57, Testimony of John Bednarski, p. 28]). In addition, I will rebut Petitioners' testimony that there would be no injury to groundwater users. (DWR-57, Testimony of John Bednarski, p. 23:16-17.) My testimony also rebuts DWR's testimony suggesting that use of the boundary approach ensures that the Project would not injure legal water users. (DWR-51, Testimony of Jennifer Pierre, p.10; see also DWR-53, Testimony of Maureen Sergent, pp. 9-10.) In addition, Petitioners have, contrary to Jennifer Pierre's testimony, assumed "changes to the permit's sources of water, quantities, rates of diversion, timing of diversion," and other changes both to DWR's and Reclamation's permits. (DWR-51, p. 2.)

I. Summary of Testimony

My rebuttal testimony is intended to present factual information relevant to senior legal users of water and Petitioners' junior water rights and permits for diversions of water from the Delta, and the lack thereof, covered in the first part (Part 1) of the SWRCB hearing process. The focus of my rebuttal testimony is on the significant and unaddressed injury to legal users of water likely to result from the "California Water Fix" ("CWF") as proposed, the unavoidable and irremediable legal deficiencies in actual water rights held by Petitioners, and the defective and intentionally nuanced (minimalized) treatment of the "injury" question in the evidence upon which the CWF application has been predicated. In my opinion, the CWF has the significant potential to, and will, result in significant and irreparable injury to other legal users of water from the Delta, including water rights holders who rights are senior to those held by the SWP and the CVP.

Based on my review of the testimony and other material submitted in support of the Petition, it has become clear to me that Petitioners' explanation of how the CWF will be implemented and operated is shrouded in obfuscation and misdirection, in spite of clearly identifiable injury that will result to senior water rights holders and, in-Delta water rights holders, and constitutionally protected public trust resources. Petitioners' misleading characterization of the proposed project, which I will explain, is rooted largely in Petitioners' representation that it will comply with the "terms" of the four (4) now ancient, and incurably defective (due to huge over-estimations of available water) SWP water rights permits, granted to DWR's predecessor agencies before most current retirees of the DWR were born.

These four water rights permits have been long recognized as containing massive amounts of "paper water." Contrary to Petitioners' position, authorized diversions provided for in a SWRCB permit do not mean that the water to which they refer ever existed. (See, generally, RTD-131, Tim Stroshane, Testimony on Water Availability Analysis, submitted for Phase 2 of State Water Resources Control Board, Bay-Delta Water Quality Control Plan Update, October 26, 2012, pp. 8-13 [discussing causes and impacts of "paper water"].) Not

infrequently, "paper water" results from (or is "created" by) the flawed representations of overenthusiastic design engineers promising that there is more "wet" water in a river system than
actually exists. These mistakes sometimes happened because of a lack of reliable hydrologic
information. Sometimes (it has been postulated), during historically difficult economic times in
the state, sufficiently large "water" yields needed to be identified by the designers to decision
makers because the project would not be built (and the engineers no longer employed) if
identified (to-be-developed) water supplies were inadequate to support the sale of
construction bonds secured by the anticipated cash flow of the project water sales to potential
customers.

Current Petitioner testimonials supporting the flawed CWF proposal continue to refer
back to decisions and water contracts entered into in the 1960's. Petitioners would have the

Current Petitioner testimonials supporting the flawed CWF proposal continue to refer back to decisions and water contracts entered into in the 1960's. Petitioners would have the SWRCB members ignore the history and consequences of DWR's water use and the massive population growth and corresponding development of the State of California and expansion of its attendant legal mandates_, including the Public Trust doctrine, over the past 50+ years. The truth is that, without the requisite Water Availability Analysis and without evaluating potential harm to other water users, Petitioners are asking for a new water rights permit that will allow the SWP and CVP to increase the amount of water diverted from the Delta by characterizing that increase, euphemistically and deceptively, in terms of "improved reliability." In fact, the proposed change will constitute a new water right, as part of the range of operations expands an existing right to appropriate a greater amount of water (1.2 million acre feet) in Boundary 1, lesser amounts in H3 and H4, and uses a different source of water: additional flows from below rim dams diverted underneath the Bay-Delta. This is unlawful under Cal. Code Regs., title 23 § 699 and Jackson Rancho County Water District v. State Water Rights Board (1965) 235 Cal.App. 2d 863, 879. (See also SJC-78, WR 2009-0061, pp. 5-6.)

"Paper water" is the empty legacy left by former state employees over fifty years ago.

Those grants of "fictitious water" should have been revised both through SWRCB reviews of the terms and mandates of the four junior water rights permits held by SWP and through

mandatory reductions in permitted diversions (eliminating the fictitious "paper water" and the troubling continuing reliance of Petitioners thereon) during the intervening decades. Those water rights permits, which have not been exposed to the constitutionally required reviews and modifications articulated in the National Audubon decision (National Audubon Society v. Superior Court (1983) 33 Cal.3d 419), suffer from serious and irremediable defects and have resulted in significant and adverse environmental impacts in the Delta, as well as illegal adverse impacts affecting senior water rights holders in the Delta that I will address in my testimony. SWP water exports from the Delta should have been reviewed, accurately quantified, and reduced by the SWRCB based upon hydrologic data from the last seven decades. These basic and urgently needed measures have been systematically ignored or side-stepped during recent years, further imperiling the Delta.

I will also address:

- 1. The lack of the required water rights for Petitioners to pursue the CWF, -making the Petition a request for a new water right, which requires a Water Availability Analysis ("WAA");
- 2. Petitioners' failure to consider all legal water users and all injury types in their attempt to comply with "No Injury" rule; and
- 3. Petitioners' legally incorrect reliance on the concept of Adaptive Management as a tool to avoid their current obligation to produce a full, complete, and comprehensible project description for the requested water rights changes.

II. **Background Facts Pertinent to the "No Injury" Analysis**

The Central Valley Project and the State Water Project have some of the most junior appropriative rights in California, with a listed "face value" of approximately 65 million acrefeet. A significant portion of that water doesn't even exist except in the wettest of years. By themselves, the listed face value of state and federal consumptive water rights in the Delta watershed exceed average annual Central Valley watershed runoff of approximately 29 million acre-feet. And, the 65 million acre feet figure does not include senior consumptive water rights in these watersheds.

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The California Department of Finance originally filed for these permits back in 1927, while other rights were filed for in the late 1930s. In terms of water appropriations, this is quite late in California history, since some pre-1914 appropriations date to Gold Rush days. California has constitutional provisions prohibiting unreasonable use and diversion of water, a comprehensive Water Code, the California Environmental Quality Act, Public Resources Code, §§ 21000 et seg. ("CEQA"), state and federal endangered species acts, and water quality acts, environmental review acts and a Fish and Game Code that - while imperfect assist in the equitable distribution of available water, preserve the entitlements of senior water rights holders (including riparian, pre-1914 appropriators, and appropriators whose rights precede those of the SWP and CVP), and allow for the appropriation of water by junior water rights holders (SWP and CVP), and, arguably, protect pelagic and salmonid fisheries. The state has regulatory and resource agencies charged with implementing and enforcing these laws. The present history (the last 17 years) of shortages would have been prevented if these laws had been complied with and enforced. They have generally been ignored because the resources decisions necessitated by their enforcement are consequential and very difficult for the state and many interested parties that receive the benefits of water exported from the Delta.

Since at least 1979, the SWRCB recognized that "To provide full mitigation of project [CVP and SWP] impacts on all fishery species now would require the virtual shutting down of the export pumps." (See SWRCB-23, SWRCB D-1485, p. 13.) Since that time, SWP pumping by DWR, and pumping from the Delta by the CVP, have steadily increased to the point that the courts have intervened to curtail illegal pumping to try to mitigate, in part, the serious adverse consequences of the continuing conduct of DWR and the Bureau of Reclamation with respect to SWP/CVP pumping on the eco-systems of the Delta and the senior water rights holders and users therein.

Notably, since the original appropriative permits were secured and subsequently implemented by DWR in the 1960's, certain unanticipated acts and actions have taken place. These acts and actions developments prohibit 21st Century decision makers, who are being

asked to rule on new "projects" as defined by CEQA, from simplistically relying on permits from the "good old days" without demanding the production of significant, comprehensive, legally required factual updates and acknowledgements of the changed circumstances in the Sacramento-San Joaquin Delta. Petitioners fail to acknowledge that these acts developments have reduced the water yields originally expected from the SWP and the CVP.

Among these acts developments were the failure to construct and/or termination of proposed SWP reservoirs and facilities, like the Eel River reservoir that was terminated by Governor Reagan and the Peripheral Canal which was and remains a massively unpopular project with many of California's voters. Further, the legislative adoption of CEQA in 1973, and the California Supreme Court's "Audubon Decision" in 1983 have both expanded and placed far greater mandatory, legally enforceable burdens on lead agencies (in this case DWR) and upon regulatory agencies, including the SWRCB. These agencies must now produce detailed and comprehensive evaluations and specifically enforceable mitigations of the potential adverse environmental consequences of their public projects, and quantifiable determinations of actual available "wet" water (to which a proponent holds actual water rights) to avoid injury adverse impacts to "public trust", fishery, and environmental resources and to legal users of water who are entitled to protection under the "No Injury" rule.

III. Petitioners' Permits Have Expired, and They Are Asking for a New Water Right

In her written testimony, DWR witness Maureen Sergent stated that it was her understanding that under the Water Code, DWR's Petition would not create a new water right. (DWR-53, Testimony of Maureen Sergent, p. 9:8-10:23.) Yet, during cross examination, Ms. Sergent confirmed that DWR has never diverted a drop of water from the Hood location where DWR claims it has an authorized point of diversion. (September 23, 2016, Spaletta Cross of Maureen Sergent, p. 129:15-22.)

As described below, the CWF, and its new Petition for Change is a new project, with new points of diversion. The effort by Petitioners to cloak the CWF in the archaic and out-of-date findings of old water rights permits (See SWRCB-1 and SWRCB-2 [Petition and

Addendum and Errata]) fails to meet the SWRCB regulatory and, legal, and environmental standards for a project in the 21st Century world of water rights.

A. Petitioners' Permits for Diversions in the Northern Delta Have Expired

Petitioners' imply that because DWR filed a "Petition for Time Extension" to build facilities to put their "paper water" to beneficial use eight (8) years ago (2009), they can thereby avoid the reality that the permits for the CWF have expired. The expiration dates have come and gone. Petitioners know that the SWRCB cannot grant a petition based upon "paper water". (See *Planning & Conservation League v. Department of Water Resources* (2000) 83 Cal. App. 4th 892, 908, fnt.5.)

In eight (8) years, the SWRCB itself has never taken any action to extend DWR's permits. Actions by SWRCB staff cannot extend these permits. The SWRCB itself has not publicly noticed any hearings, nor taken any actions, nor directed the preparation of any record pursuant to that DWR request, in spite of there being no limitations on the SWRCB's power to do so. Importantly, DWR has filed no action (Petition for a Writ of Mandate) against the SWRCB to compel such a Board hearing on its petition to take place. The SWRCB has ignored the extension petition, and DWR has done nothing for eight years to advance its own interests.

Moreover, other SWRCB decisions compel the conclusion that the permits have expired. Order WR 2008-0045 (revoking SWRCB Permits 16209, 16210, 16211, and 16212 – Auburn Dam) and its findings identify expiration of the subject DWR permits as the only reasonable conclusion after eight years of inaction by DWR and the SWRCB. (SJC-79.) Additionally, the currently proposed points of diversion by DWR are not even in the same locations as what DWR had applied for and allowed to expire due to the passage of time. Clearly, DWR and the SWP now lack the requisite water rights to advance the CWF until new applications for new water rights have been prepared, filed_, subjected to CEQA equivalency review, and ruled upon by the SWRCB itself.

B. The Petition Requests a New Water Right

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Contrary to DWR witness Maureen Sergent's assertions, the Petition for Change constitutes a request for a new water right. (DWR-53, Testimony of Maureen Sergent, pp. 9-10.) Sergent relies on State Water Resources Control Board Order WR 2009-0061 ("WR 2009-0061" included as SJC-78) to claim that "the fundamental difference between an application for a new right or a change to an existing right is that the new right seeks to increase the diversion at a given time." (DWR-53, Testimony of Maureen Sergent, pp. 9-10.) This misstates the analysis in WR 2009-0061. In that proceeding, the Board considered whether the City of Santa Cruz's petition to change its diversion permit to allow for direct diversion where the current permit only allowed diversion for storage would constitute a new water right. (SJC-78, WR 2009-0061, p. 1.) The Board observed that the "common feature among the changes that have been found to constitute the creation of a new right, as opposed to a change in an existing right, is that the changes that initiate a new right increase the amount of water taken from a water source at a given time." (SJC-78, WR 2009-0061, p. 6.) The actual language WR 2009-0061 indicates that water source is relevant to whether a petition requests a new water right. Under the reasoning of WR 2009-0061, the facts here establish that the Petition is indeed a request for a new water right. Because there is no existing water right at the diversion points contained in the Petition, it requires a new water right. In the alternative, the Petition indicates that it requests an increase in diversion. Finally, even if the Board determines that the Petition does not request an increase to an existing diversion, changing the location of the diversion point will change the source of the diverted water. Doing so would constitute an "increase [in] the amount of water taken from a water source at a given time." (SJC-78, WR 2009-0061, p. 6.)

The Petition constitutes a request for a new water right because the Petition would require either increasing the amount of water being diverted under an existing permit, or approving a new permit. In addition, there is no existing water right to be changed for the Project because the prior application requesting diversion at the Hood intake expired before DWR perfected the water right. Permits 16478, 16479, 16481, and 16482 have expired on their face. The other permits held by DWR have never been used. DWR and Reclamation

have petitioned the State Water Board for Extensions of time, but those petitions have never been heard. CSPA et al. have protested the extensions of those petitions. (See CSPA-4-Revised, Chris Shutes Testimony – Revised, pp. 4-5.) In addition, the point of diversion for which an application was previously filed is not even the same as the diversion "points" (each of which is approximately 1/3 of a mile long) now sought. (See SWRCB-1, Petition for Change, Figures dated May, 4, 2016 [pdf pp, 34, 38], showing point of diversion/rediversion from expired application in green and proposed diversion/rediversion points in tan; see also, SWRCB-1, Location of Point of Diversion Table [pdf p. 39], listing different coordinates.)

Thus, any water right grantinged Petitioners' request now would result in be an increase of presently permitted diversion in the northern Delta, which is zero, and would therefore constitute a new water right. Even if there is an existing water right, the Petition will create an increase in diversion if operated under Boundary 1 (1.2 million acre feet increase), requiring a new water right. Despite Petitioners' representations that they are not requesting an increase in water diversions (DWR-53, Testimony of Maureen Sergent, p. 10:1-15), the Project will also increase the amount of water that can physically be diverted by Petitioners collectively by 9,000 cfs. (SWRCB-3, BDCP/CWF RDEIR/EIS, p. 3-18 [Alternative 4A].)

Sergent inaccurately claimed that WR2009-0061 settled this issue by finding that a water right change petition can be conditioned to maintain the prior limits on the diversion even if there is an increase in diversion capacity. (DWR-53, p. 10:1-15.) Though WR2009-0061 contains language to this effect, the referenced discussion was hypothetical dicta, as the issue was not before the Board at the time. (Exh. SJC-78, WR2009-0061, p. 7.) Further, no authority is cited in WR2009-0061 to support the position that permit conditions are sufficient to prevent a water rights change that involves increased diversion capacity from becoming a new water right. (*Ibid.*)

Finally, admitted evidence establishes that changing the diversion point of the water will change its source. This means that some sources will have increased diversions if the Petition is granted. About this, WR2009-0061 is clear: a new water right "increase[s] the

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amount of water taken from a water source at a given time." (SJC-78, WR2009-0061, p. 6.)¹ Thus, even if the total amount of water diverted does not change, an increase from any source transforms this change petition to a request for a new right. DWR has produced model hydrodynamic analyses of source fingerprinting of water at various locations in the Delta. The analyses identify what source the water has come from. Source water fingerprinting results indicate that the composition of water sources will change significantly from those presently relied upon under existing water rights permits. (See RTD-10-rev-2, Testimony of Tim Stroshane, p. 7, ¶¶ 22-23.) Presently, Sacramento River water makes up nearly 60 percent of Banks water in January, and drops to about 30 percent in June. With the proposed new diversions in place, over 80% of the water pumped through Banks in January would be Sacramento River water, and between 45% to 55% of the water pumped in June would also be from the Sacramento River. (See RTD-10-rev-2, Testimony of Tim Stroshane, ¶ 23 [citing RTD-130, p. 60, Figure 5, which is generated from data contained in SWRCB-3, Appendix B, Section B.4.2, pp. B-209 to B-212, B-231-234, and B-253-256].) Diverting more Sacramento River water through the new points of diversion would constitute an increased diversion from a source, and the Petition therefore requests a new water right.

IV. A Water Availability Analysis Was Required

As the Petition requests a new water right, a WAA was required. (See Wat. Code, § § 1260, subd. (k).) The Water Code requires that every application for a new water right submitted to the Board must include "sufficient information to demonstrate a reasonable likelihood that unappropriated water is available for appropriation." (Ibid.) It is a prerequisite to issuing a permit that "Itlhere must be unappropriated water available to supply the (Wat. Code, § ; 1375, subd. (d).) Such an analysis would quantify actual "wet" water availability remaining under DWR's old permits. Omission of this mandatory quantification is fatal to Petitioners' Petition and their case in chief. By failing to produce a WAA, Petitioners have ignored (and are asking the SWRCB to ignore) over seven decades of

WR2009-0061 did not address a situation where a party requested a change that would increase the amount of water diverted from one of several sources.

hydrologic records related to rainfall, runoff, increasing in-Delta and out-of-Delta permanent consumptive uses, water quality changes, flow data, and their own modelling that Petitioners are obligated to use to quantify how much actual "wet" water actually exists for their proposed purposes.

As early as 1934, discussions occurred between the State and Reclamation over a judicial resolution of competing water rights claims in the Sacramento and San Joaquin Basins. Engineers and attorneys in both Reclamation and the old California Water Rights Board advocated for an adjudication of water rights throughout the 1930s because they questioned whether the CVP had sufficient water rights. In 1939, Frank W. Clark, Chairman of the Water Protection Authority of California wrote to Walker R. Young, Supervising Engineer of the U.S. Bureau of Reclamation in Sacramento, that he concurred with the state engineer that "a judicial determination of existing water rights on the Sacramento and San Joaquin Rivers is necessary in order to operate the Central Valley Project efficiently and successfully and such determination should be effected before the project is placed in operation." (SJC-80 Holsinger-related CVP Documents, 1939-1942, p. 758.)

assumptions"].) The legislature narrowly approved the State Water Project. Adjudication never occurred – likely because decision makers knew that adjudication would doom the projects.

This looming reality was also described in DWR Bulletin No. 76 (Delta Water Facilities) in 1960. Bulletin No. 76 states that, after 1981, operation of the SWP and CVP "will necessitate importation of about 5,000,000 acre-feet of water annually to the Delta from north coastal streams..." (SDWA-169, Bulletin 76 Report to the Legislature, December 1960, p. 13.) This water would come from the Klamath, Smith, Van Duzen, Eel and Trinity Rivers. However, with the exception of diversions from the Trinity River, that water never materialized because of the 1968 passage of the Wild & Scenic Rivers Act. None of that water was ever developed, which means that the system starts off each year 5 MAF short.

The State Board began a round of hearings leading up to a Water Quality Control Plan that was adopted in 1995. The Board then proceeded to hold long evidentiary water rights hearings that led to D-1641 in late 2000, which implemented the 1995 water quality control plan. The Monterey Agreement later removed the permanent shortage section 18(b) from the State contracts, which would have required DWR to permanently reduce allocations to contractors based on actual supply available. This, of course, was part of the continuing pattern of intentionally avoiding the implications and consequences of the fact that the water supply is limited. (See, generally, Exhibit SDWA-169, Bulletin 76 Report to the Legislature, December 1960.)

A water availability analysis, which would likely need to be preceded by an adjudication, is essential to separating real water from paper water and addressing the legal rights to it. Assessment of availability is an initial step in addressing a seriously oversubscribed system, operating in deficit, and incapable of meeting competing demands. The necessary second step is a comprehensive water quality analysis to evaluate the impacts to pollutant concentration and residence time from diverting additional dilution flows around an already degraded estuary. These two steps are initial requirements before the state Board may approve the currently requested change in point of diversion.

A WAA is necessary and required to determine if any water is available for a proposed project. The lack of a WAA strongly suggests that Petitioners know that the limited amount of "wet" water remaining in its junior water rights permits would be deeply troubling to decision makers who are obligated to balance accepting billions in additional public debt with the actual potential of new water being generated by a project. Importantly, it must be remembered that building new diversions and tunnels will never generate a drop of additional water for the state.

IV. V. Petitioners Have Failed to Perform an Adequate "No Injury" Analysis That Considers All Types of Injury and All Legal Water Users

Based on past operations, it is reasonable to assume that the Delta Tunnels would be operated by Petitioners without sufficient protections to prevent injury to Delta farmers and cause unreasonable effects on Delta ecosystems. So-called "dual conveyance" would remove fresh water supplies from Delta ecosystems, further reduce the diversity of aquatic habitats for failing species, and literally de-water the water rights of sustainable Delta farms and communities with senior water rights. This statement is not conjecture; it is the ONLY conclusion that can be reached as a result of the initial failure of Petitioners to even acknowledge that there were other legal, and senior, water users and water rights holders in the Delta that had the potential to be adversely affected by the CWF. (SWRCB-1, Petition for Change, dated August 25, 2015, p. 2 [stating "N/A" diversions that may be affected due to proposed change].) This action to initially ignore all other legal water users is concerning as Petitioners have a duty to show "no injury" (see Water Code, § 1702) in order for the Petition to be granted.

A. Petitioners Failed to Consider Potential Injuries to Individual Water Rights that Grant of the Petition May Cause

The Board may only grant permission to change a water right where the petitioner shows that "the change will not operate to the injury of any legal user of the water involved" (Wat. Code, § 1702), and the petition itself must include "sufficient information to demonstrate a reasonable likelihood that the proposed change will not injure" any legal water user (Wat. Code, § 1701.2, subd. (e); see also Cal. Code Regs., tit. 23, § 794, subd. (a)). Implicit in this

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provision is the concept that in showing that the change will not injure "any legal user" of the water, the petitioner must consider individual harm to individual users. (See generally, *Lester v. Doestch* (1935) 7 Cal.App.2d 551 [court considers specific impacts to the water rights of potentially injured party].)

Petitioners have failed to address this "No Injury" mandate, even though a list of Delta water users was later added to the Petition. (SWRCB-2, Errata Addendum to Petition, Exhibit C, dated September 11, 2015.) There is still no identification of legal users of groundwater along the path of the tunnel alignment that has been produced by Petitioners. (See SJC-70-75 Itestimony and mapping showing known groundwater wells in the vicinity of the proposed Tunnels and other related project components].) Protestants in this hearing submitted evidence concerning the diversions that could be potentially injured by grant of the Petition. (See, e.g., LAND-62, Exhibit C [Water Rights within LAND Area]; II-38 [Islands, Inc. water rights]; LAND-5 and LAND-75 [Bogle water rights protest to Petition, Exhibits A and B], LAND-6 and LAND-76 [Diablo water rights protest to Petition, Exhibits A and B], LAND-7 and LAND-77 [Elliot/Stillwater water rights protest to Petition, Exhibits A and B], and II-38 [Ryer Island diversions].)² Petitioners' witnesses repeatedly confirmed, however, that their injury analysis did not consider harm to individual water rights or specific representative regions of the Delta. (September 23, 2016, Meserve Cross Exam of Maureen Sergent, pp. 41:4-42:1 ["Let's note" that to everyone. They did not investigate individual diversions."], August 5, 2016, Meserve Cross Exam of John Bednarski, pp. 180:18-184:18 [second DWR witness confirming that engineering team had not considered injury to specific LAND member water rights].) Thus, any conclusion that granting the Petition would cause "no injury" to legal water users is fatally flawed, as DWR has failed to analyze whether any individual users would be harmed if the Board grants the Petition.

Any properly conducted, and legally sustainable, "No Injury" analysis would require, as a predicate, a proper and complete study of the existing water rights and legal uses of water

These Exhibits include reliable listings and/or maps with an accurate and undisputed description of the water rights associated with these protestants.

that may be injured by construction and operation of the proposed tunnels. (See Wat. Code, §§ 1701.2, subd. (d), 1702.) DWR's failure to conduct this analysis renders Petitioners' "no injury" conclusions completely unsubstantiated.

B. Petitioners have Failed to Evaluate Adverse Impacts to Groundwater and Injury to Groundwater Rights Holders and Users

Petitioners' description and defense of the proposed CWF is fatally defective because it fails to acknowledge, identify, or evaluate groundwater rights users (well water users) whose groundwater supplies will be interrupted or permanently lost as a consequence of the construction of the CWF and the proposed tunnel alignment and other project components in both Sacramento and San Joaquin Counties.

Groundwater well information is readily available from within DWR itself, along with other sources. Along the identified "tunnel" route, one can see, with the naked eye, hundreds of houses, farms, and industrial and commercial developments, many of which rely upon groundwater as their sole source of potable water. Petitioners have failed to identify these properties.

Even without on-site field investigations, Petitioners could easily have obtained this information, and they surely would have done so if they had even considered the potential injury to legal users of groundwater if the proposed CWF project is approved. The Written Rebuttal Testimony of Brandon Nakagawa, San Joaquin County's Water Resources Coordinator, and the exhibits to Mr. Nakagawa's written testimony, clearly illustrate the feasibility of identifying legal users of water within close proximity to the proposed tunnel alignment and related tunnel components. (See Exh.SJC-70, Written Testimony of Brandon Nakagawa, and SJC-72, SJC-73, SJC-74, and SJC-75 [Well Log Spreadsheet and Maps showing well locations near the proposed tunnel alignment].) Using DWR's own Well Completion Request Form, Mr. Nakagawa's department requested all well completion reports in the townships, ranges, and sections along the proposed tunnel alignment. (SJC-70, pp. 5-6.) In response, DWR provided a compact disk containing 134 well completion reports and an indexed spreadsheet of well records. (SJC-70, p. 6.)

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As described in Mr. Nakagawa's testimony, from this DWR-provided data Mr. Nakagawa's department was able to identify the locations of domestic, irrigation, and public supply wells in the vicinity of the proposed tunnels. (*Ibid.*) As reflected on the Well Log Spreadsheet (SJC-72) and the three maps (SJC-73, SJC-74, and SJC-75), in this manner Mr. Nakagawa's department was able to identify and locate seventy-six (76) well sites within the vicinity of the proposed tunnels.

What is noteworthy in this is not that the San Joaquin County's Water Resources Coordinator was able to locate the well sites using information from DWR itself. Rather, the critically important point is that Petitioners did *not* avail themselves of DWR's well completion report database to identify groundwater uses that could be injured by construction and operation of the proposed tunnels. (See SJC-70, p. 7 [Mr. Nakagawa's opinion concerning specific potential injury to users of groundwater]; see, also, LAND-35 (Revised), Written Testimony of Josef Tootle, pp. 1-6, [potential injury to groundwater users in the vicinity of the proposed tunnels].) Plainly, having not even bothered to identify legal users of groundwater within the vicinity of the proposed tunnels, Petitioners are in no position to assert that they evaluated potential injury to such users and legal uses of groundwater. They have failed utterly to carry their burden of proof under Water Code sections 1701 and 1702.

Of significant importance under California water rights law, groundwater rights may not be severed by condemnation from the overlying lands beneath which the groundwater is located. Hence, the taking of groundwater rights, or the interference with percolation of water into groundwater aquifers, or the loss of recharge as a direct or indirect consequence of the construction of the tunnels, necessitates the condemnation of the overlying land as well. These anticipated takings will result in the significant displacement of farms, residences, and industrial and commercial enterprises, and further result in significant adverse environmental impacts that DWR appears to have failed to identify as part of its defective analysis of the consequences of their CWF proposal. Petitioners' failure to recognize the necessity of a full and comprehensive CEQA evaluation of these potentially adverse impacts to groundwater rights holder and users demonstrates the paucity of Petitioners' efforts to fully mitigate the

significant adverse environmental impacts of their CWF on private landowners along the tunnel route.

Groundwater injuries are not limited to the Delta. According to Project documents, preferred Alternative 4A "would increase water transfer demand compared to existing conditions." (SWRCB-3, SDEIS/RDEIR, p. 4.3.1-9.) As presented by Protestant AquaAlliance in its case in chief, injury to groundwater pumping in the Sacramento Valley would increase as a result of grant of the Petition. (See Aqua-1-Revised-2, Vlamis Testimony, pp. 7-8.) Further groundwater depletion in the Sacramento Valley from groundwater substitution if additional water is transferred as a result of the operation of the Delta Tunnels would deplete already stressed Sacramento Valley groundwater supplies and also do great damage to the Sacramento Valley economy, including agricultural and municipal water users north of the Delta.

C. Petitioners Have Failed to Consider Injuries to Legal Water Users in the Region Downstream of the Project.

Petitioners proposed changes to water diversions in the Delta. The CWF would shift the point of diversion at which Sacramento River water is exported to a new point in the northern Delta. This would shift the impacts of export diversions directly to the Sacramento River (and away from the San Joaquin), the last river in the Valley supporting substantial, but vulnerable salmon and steelhead populations. In spite of this massive change, Petitioners have failed to show that the proposed change would not injury other legal users and uses of water.

Petitioners failed because they provided *no analysis* of the effects of their proposal on the other legal users of water in the Delta region downstream of the proposed new diversions. In short, to address the rule's requirement to show that the proposal would spare all legal users of water from injury, the Petitioners should have described the proposal's causal sequence of effects and substantiated the underlying explanations of those effects. They also should have substantiated the risks and uncertainties associated with these effects.

Moreover, they should have evaluated these effects on each, every, and all of the other legal

users of water in the Delta region. Petitioners have not made any attempt to evaluate the effects of the proposed change on even one---let alone all---legal users of water in the Delta region.

Operation of the proposed Tunnels would decrease freshwater inflows and increase the residence time of river flows in the Delta not otherwise diverted into the proposed Tunnels. (See SJC-4, pp. 4-5, 11 [discussing how operations would create a drought equivalent condition on the Sacramento River and increase residence times].) The attendant significant economic costs resulting therefrom, slower and lower water flows would increase pollutant concentrations, water temperatures, and dissolved oxygen problems in the Delta—all of which further compromise water supplies for senior water rights holders, fish habitat, recreational activities and land uses, and protected and declining fisheries and other beneficial uses of water. Petitioners have not even acknowledged that these significant new expenses that will be borne by legal users of water as a direct result of the CWF in the context of the no injury standard, let alone conducted an environmental and economic analysis of these consequences to disclose these facts to the SWRCB.

D. Petitioners Impermissibly Rely Upon Compliance With D-1641 to Attempt to Satisfy the "No Injury" Rule

Petitioners' representatives incorrectly rely upon the CWF's projected compliance with the requirements of SWRCB D-1641 as their "solution" to their failure to comprehensively evaluate and address the "No Injury" rule, and the anticipated victims of the environmental damage to be caused by the Delta Tunnels. (See, e.g., DWR-3, slide 8, DWR-4 Errata, slide 23.) DWR witness Sergent testified that DWR relied on statutory requirements, including compliance with D-1641 to determine whether the Petition would cause injury to water users. (DWR-53, Testimony of Maureen Sergent, pp. 4:9-16, 13:7-20; see also September 23, 2016 Cross Examination of Maureen Sergent, p. 36:7-25.) Sergent's testimony clarified DWR's position that a reduction in water quality that does not violate D-1641 "would not interfere with the ability of other legal users to put water to beneficial use." (Id., p. 13:7-20.) Testimony by a DWR modelling expert further indicated that DWR had not considered potential injuries to

water users not caused by a D-1641 exceedance. (August 24, 2016, Meserve Cross-Exam of Parviz Nader-Tehrani, pp. 236:3-237:8.)

DWR's modelling expert stated that he had examined D-1641 compliance at points throughout the Delta, but that his testimony included only those points he thought were "representative." (August 24, 2016, Meserve Cross-Exam of Parviz Nader-Tehrani, pp. 236:3-237:13.) Dr. Nader-Tehrani testified "D-1641 locations . . . would be the best representation of . . . making an assessment on whether there is a – an impact to water quality for legal users of water." (August 24, 2016, Meserve Cross-Exam of Parviz Nader-Tehrani, p. 237;4-8.) While Dr. Nader-Tehrani explained that he looked at representative locations, Hearing Chair Dudoc confirmed that "that information is in the modeling result, but not necessarily in the testimony." (Id. at p. 237:9-13.)

Yet, the SWRCB Water Quality Control Plan does not define water rights; it was not intended to, nor does it address the issues related with the rights and protections afforded to legal users of water in the Delta. Petitioners' statements and conclusions regarding this matter are legally and factually incorrect. According to the Basin Plan itself, it "is not to be construed as establishing the quantities of water that any particular water right holder or group of water right holders may be required to release or forego to meet the objectives of this plan." (SWRCB-27, p. 3.)

E. Petitioners Have Failed to Consider Several Types of Injury that a Petition Grant Could Cause to Legal Users of Water

Though Petitioners reasoned that legal water users would only be injured if the Project caused violations of D-1641, this ignores other ways that legal water users can be injured. Testimony given by Petitioners' water rights witness, Maureen Sergent, that "(a)Ithough there may be changes in SWP/CVP storage levels or releases. . . . this would not injure other legal users because it is my understanding that such water users do not have a right to stored water releases from the SWP/CVP" is factually incorrect. (DWR-53, Testimony of Maureen Sergent, p. 11:10-19.) Legal Users in the Delta are entitled to realize the water quality benefits of release flows from DWR storage facilities because the SWRCB mandates that

DWR release of those waters to protect and preserve Delta water quality, in part for the benefit of legal users. (Wat. Code. §§ 11460, 12205.) Both CVP and SWP are required to obey the county of origin laws (Wat. Code §§ 10505,10505.5), and both must supply stored water to protect Delta water needs and supply flow by the Delta Protection Act.

Petitioners cannot "track" stored water once it is released from storage, rather, Petitioners rely on meeting water quality flows and objectives to determine when water can be diverted. (See generally, September 23, 2016, Meserve Cross Exam of Maureen Sergent, pp. 35-37.) Consequently, the newly proposed diversion points would result in the diversion of water from the Sacramento River watershed that is not currently being diverted. (See RTD-10-rev-2, Testimony of Tim Stroshane, p. 7, ¶¶ 22-23 [discussing different source water proposed for diversion by Petitioners].)

Reduction of Sacramento River flows through the Delta will cause injury to legal users within the South and Eastern Delta. Petitioners and their contractors have an obligation to ensure that legal downstream users do not suffer increases in the concentration of agricultural runoff and pollutants from within the contractors' areas/places of use. The diversion of water by the Delta Tunnels from the newly proposed North Delta diversion points will cause such an increase in contamination and pollution of the waters to which the South Delta and Eastern Delta senior legal users are entitled, and Petitioners have an obligation to fully identify and prevent injury before the Delta Tunnels may be permitted by the SWRCB.

Moreover, the specific and quantifiable remedies and specific mitigations for these clearly expected injuries, in violation of the "No Injury" rule, have not been identified by Petitioners. Inasmuch as these injuries, if the promises made by Petitioners' representatives are left unfulfilled, will result in tens of millions of dollars in annual damages to legal users of water. As a result, annualized cash expenses to pay the injured legal users of water, dependent upon rainfall years, should be fully calculated (after all of the affected legal users and their points of diversions are identified and evaluated) using a "to-be-developed" actuarial model, and incorporated into the estimated sale price of water from the CWF to the Petitioners' various contractors.

Petitioners should accept the financial burden of paying the injured parties annually as a condition/term of any permit that they might secure for the CWF. Prior practices by which the Board relied on erroneous promises and mistakes that resulted in massive unintended expenses and injury being passed onto unsuspecting victims of poorly conceived "public projects" are contrary to laws and regulatory enactments to avoid such injury that currently apply in California.

F. Petitioners' Reliance on Mitigation Measures that Purportedly Reduce Impacts on Water Users to Less than Significant Levels as Equivalent to "No Injury" is Incorrect

The Board only has the discretion to grant permission to change a water right where the petitioner shows that "the change will not operate to the injury of any legal user of the water involved" (Wat. Code, § 1702), and the petition itself must include "sufficient information to demonstrate a reasonable likelihood that the proposed change will not injure" any legal water user. (Wat. Code, § 1701.2, subd. (e); see also *Barnes v. Hussa* (2006) 136 Cal.App.4th 1358, 1365.) Instead of attempting to demonstrate that the petition change would satisfy the "no injury" standard, it appears that Petitioners may be relying upon mitigation measures designed to satisfy the requirements of CEQA. There is no evidence, however, that implementing mitigation measures would be sufficient to demonstrate that the petition change will not cause injury to legal users of water.

CEQA requires agencies to perform environmental review of all projects that require discretionary approvals, and where the project may cause significant environmental impacts, the agency must propose "feasible" mitigation measures which are designed to "minimize significant environmental impacts, not necessarily to eliminate them." (1 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act (Cont.Ed.Bar 2016) § 14.2, p. 14-4 [citing 14 Cal. Code Regs, tit. 14 ("CEQA Guidelines"), § 15126.4, subd. (a)]; Pub. Resource Code, § 21002.) Moreover, CEQA permits an agency to approve a project even though it will cause impacts whose significance cannot be mitigated; the agency need only adopt a "statement of

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overriding consideration." (Pub. Resources Code, § 21081.) If the lead agency makes findings that mitigating certain impacts is within the jurisdiction of another agency, or would be economically, socially, legally, or otherwise infeasible, it may approve the project despite the existence of significant environmental impacts. (*Ibid.*; CEQA Guidelines, § 15091.) In contrast, the "no injury" rule does not provide the Board discretion to approve a petition even if granting it causes injury. (Cf. Wat. Code, § 1701.)

Even assuming the mitigation measures would be effective in reducing impacts that may be correlated to water users and uses to less than significant levels under CEQA, that cannot be equated to "no injury" under applicable water law principles. A determination of significance under CEQA is based on the significance of an impact based on the adopted threshold. (CEQA Guidelines, § 15064.7.) If a project causes impacts that do not reach this threshold, no mitigation is necessary. There is no parallel authority under the "no injury" rule that allows the Board to adopt a threshold that allows some injury to water users without mitigating that injury. Section 1702 is unambiguous that the Board "shall" find that the change "will not operate to the injury of any legal user" before allowing a change. (Wat. Code, § 1702.) The difference in structure between the "no injury" rule and the CEQA process indicates that the two are not equivalent, and Petitioners have presented no authority indicating otherwise.

Petitioners cannot rely on future implementation of mitigation measures proposed in the uncompleted environmental review documents to establish that the Project will not injure legal water users because, as explained, the two standards are designed for different purposes. (Cf. Guinnane v. San Francisco City Planning Comm. (1989) 209 Cal. App. 3d 732, 742 [CEQA process not equivalent to other regulatory review processes].) Moreover, even where the environmental review documents indicate that the level of significance after mitigation may be "less than significant," that

conclusion (which is still in draft form) does not equate to no injury under water rights laws.

V. VI. Petitioners' Reliance on the Concept of Adaptive Management
Demonstrates that they have Failed to Properly Characterize, Describe, and
Evaluate the Proposed Project

Petitioners' proposal to use the legislatively undefined concept of "Adaptive Management" (AM) to disguise or simply wish away significant deficiencies in the CWF proposal renders the project, as proposed, untenable. With this dearth of critical information, including a meaningful project description and a predicate Water Availability Analysis, it is not possible to perform a responsible "no injury" analysis. The testimony of Jennifer Pierre uses the concept of adaptive management exactly as the Petition for Change of Point of Diversion does, to avoid defining the project, with the result that legal users of water cannot identify injury from the approval of the project. (DWR-51, Testimony of Jennifer Pierre, pp. 10-14.)

The National Research Council [NRC] reviewed the Bay-Delta Conservation Plan [BDCP], the predecessor of the Water/Fix, and prepared a report titled "A Review of the Use of Science and Adaptive Management in California's Draft Bay-Delta Conservation Plan." The NRC observed: "Despite numerous attempts to develop and implement adaptive environmental management strategies, many of them have not been successful. (Gregory et al., 2006; Walters 2007) Walters (2007) concluded that most of more than 100 adaptive management efforts worldwide have failed primarily because of institutional problems that include lack of resources necessary for expanded monitoring; unwillingness of decision-makers to admit and embrace uncertainties in making policy choices; and lack of leadership in implementation." (CSPA-24, National Research Council, A Review of the Use of Science and Adaptive Management in California's Draft Bay Delta Conservation Plan, 2011, p. 6.)

DWR has repeatedly asserted that it operates its projects for DWR's contractors. It has never admitted that it has a greater legal obligation to the SWRCB for compliance with all of the terms of the water rights permits that the SWRCB has issued to DWR. In fact, DWR has made a long record of failing to comply with the SWRCB mandates with respect to its water quality obligations and its water rights permits by using its' stronger bargaining position,

in spite of the fact that it has junior water rights, to exact contractual agreements from in-Delta senior water rights holders to avoid lawsuits of DWR's failure to meet mandatory water quality standards in the Delta. Given the obvious and multitudinous deficiencies of the Petition, adaptive management cannot save the Petition; it has become little more than a catch phrase that is meaningless even to Petitioners' own representatives.

VI. VII. CONCLUSION

Contrary to Petitioners' characterizations, the proposed Petition is not a minor change. Petitioners would have this Board believe that adding 9,000 cfs of diversion capacity to the northern Delta, some 35 miles away from Petitioners' existing diversions is somehow a "minor change." As presented in the cases in chief of various protestants, this change would have an existential effect on water users and beneficial water uses in the Delta.

In their case in chief, Petitioners largely ignored the injury to the thousands of diversions that would be downstream of the newly proposed intakes. Petitioners failed to even attempt to specifically identify potential injury to thousands of legal users of water to whom they owe a duty of "No Injury", let alone include sufficient information to demonstrate a reasonable likelihood that the proposed change will not injure any other legal user of water. (Wat Code, § 1701.2, subd. (d).) This cavalier approach affirms the fears of the other legal users of Delta water that any promises from Petitioners made now would be meaningless after they secure the permits they desire. Petitioners' reliance on a broad range of proposed operations (B1 to B2) and the application of adaptive management to guide future operations does nothing to prevent injury to legal users of water because Petitioners have made no effort to know who they are and how they use their senior water rights. For these reasons and the reasons discussed above, the Petition is incomplete and inadequate, and to grant it would both violate California law and be contrary to the public interest.

Dated: March 23 April 19, 2017

Marc Del Piero