July 25, 2014

Via E-Mail Bdpn.comments@noaa.gov

BDCP Comments
Ryan Wulff, NMFS
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Sacramento, CA 95814

Dear Mr. Wulff:

The following are South Delta Water Agency’s comments to the Bay-Delta Conservation Plan and the draft EIR/S (hereinafter “EIR/S”) evaluating that Plan. SDWA incorporates into these comments those of the Central Delta Water Agency, the County of San Joaquin, The California Sportfishing Protection Alliance and the Contra Costa Water Agency, all to the degree they do not conflict with these comments.

Introduction

The BDCP project was constituted by DWR, USBR and the export contractors of each to avoid their current and future responsibilities for protecting the Delta, and to shift the burden of mitigating the impacts of their projects onto the public in general. Currently the projects regularly violate their permit conditions with no consequences. The past 50+ years of project operations have brought the Delta estuary to the brink of disaster, yet no process, project or regulatory body seeks to force the projects to mitigate their massive impacts. Instead, the mitigation of these impacts is now proposed to be shifted to the public under the habitat portion of the BDCP. Rather than proposing a project that will meet the dual goals of water supply reliability and protection of the Delta contained in the Delta Reform Act of 2009, the BDCP is a water grab thinly disguised as a conservation project. The BDCP proponents label the largest water infrastructure project ever conceived in the state as a “conservation measure” as if the operation of that project itself is an action to protect and enhance fish. If it were, then more intakes, more tunnels and more exports should recover the near extinct species decimated by the projects. Of course more of the cause cannot be the cure. Even a cursory reading of the analyses done by the fishery agencies involved indicates that installing five huge new intakes on the Sacramento River and pumping millions of acre feet from those new intakes through two tunnels
is not something that benefits fish and certainly does not result in improved fish populations. By labeling the new intakes and the twin tunnels as a “conservation measure,” DWR and USBR have raised obfuscation to a level never before imagined.

1. **Supply.**

The BDCP project seeks to insure some level of exports regardless of the available supply; no alternative includes minimal or zero export pumping. As referenced above, the dual goals set forth in the 2009 Act include “water supply reliability.” BDCP assumes this legal directive means that export supply must be protected and increased without regard to the actual available supply or to the legal rights and statutory mandates associated with the allocation of water in California. The BDCP plan and associated (near incomprehensible) draft EIR/S make no analysis whatsoever of the amount of water produced by the relevant Delta-related watersheds or the legal priorities for that water. Included herewith is a copy of the Weber Foundation Studies chart (Attachment 1) showing the Estimated Seasonal Natural Runoff for both the Central Valley and the North Coast Areas, years 1917-1947. These Studies and Chart were one of the efforts at quantifying the amounts of water produced each year when the planning for the CVP (and eventually the SWP) occurred. These studies attempted to identify available surplus supplies which might be exported, taking into account prior needs. Thus exports were only available when area and watershed of origin needs were satisfied.

As can be seen by the Chart, in the 1928-36 drought, the worst drought on record as of the time of the Studies, the average annual runoff from the Central Valley was 17,631,000 acre feet. At the same time, the estimated “local requirements” were 25,690,000 acre feet. These numbers indicate that in a repetition of such a six year drought the areas of origin, or the Central Valley watersheds (not including export needs) **required approximately 8 million acre feet more that the system produced.** The magnitude of this shortage cannot be overemphasized. Since various statutes protect and promise areas of origin and the Delta of all the available water for present and future needs (see Water Code Sections 11460 et. seq., and 12200 et. seq.), it is clear that in various times under various hydrologic conditions there is no water for export. Not some or a little, but no water. Whether natural flow or stored water, in some years all is needed to protect the current and future needs of those areas as promised under the statutes.

We now know that the needs of the environment and fish in particular were certainly underestimated at the time of the Weber Foundation Studies, which means the amount of the shortage is even greater. It appears at this time that all “natural flow” and all stored water the projects’ so jealously guard is needed at many times to simply comply with area of origin demands, fishery/environmental demands, and to meet project obligations contained in their permits issued by the State Water Resource Control Board. These demands are not some hypothetical burden on the projects. Since 2009, DWR and USBR have violated the following standards: Western Delta Agricultural Objective, X2/outflow Objectives, San Joaquin River Fishery flow Objectives, Old/Middle River Reverse Flow Biological Opinion requirements, and the Agricultural Objectives measured at Vernalis Brandt Bridge, Old River at Middle River and Old River at the Tracy Blvd. Bridge. [See for example Attachment 2.] This last set of Objectives includes approximately 1000 days of violations since 2005, the year they became effective. In addition to these violations, the projects have sought and received relaxation of

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1 The technical term “Objective” is the manner in which the SWRCB labels a “standard.” The two terms are use interchangeably herein.
these and other standards (especially those which limit exports) whereby the SWRCB acquiesced to the projects’ inability to plan ahead and meet their permit terms. [See Attachment 3] When viewed together, these excessive violations of permit terms and standards along with the regular relaxation of compliance to those standards confirms that the amount of water needed to meet the minimum obligations of the projects (not including exports) is woefully insufficient. This of course explains why the BDCP analysis of 40,000+ pages does not include any analysis of the amount of water available for export once superior needs and project obligations are satisfied.

This extreme lack of supply in some years is not just suggested by the old Weber Foundation Studies, but is also contained in the original plans for the SWP. Bulletin 76 (Attachment 4) attached hereto indicates that a foundational part of the SWP was to add 5 MAF of water to the Sacramento system by the year 2000 in order to provide not only the needed supply for exports, but first and foremost to address superior rights associated with the drought shortage mentioned above. The 5 MAF was to come from projects on the north coast rivers; however none of the supply was developed and none will be.

The failure to go through this analysis of water supply makes the BDCP inadequate under the law as it does not comply with the 2009 Act. In order to determine “a reliable water supply” (not by the way limited to reliable exports) one must not only first determine how much water exists and when, but who is entitled to any of that water. All riparian, pre-1914 rights and virtually all permits and license are superior to the projects’ permits. Thus there can be no minimum exports under BDCP until it calculates just how much water can be exported; legally. In addition, BDCP fails under CEQA and NEPA by not adequately analyzing the impacts of exports on the environment. The BDCP documents purport to comply with all regulatory mandates. However, given the above referenced violations of standards and regular relaxation of standards, the BDCP analysis is illusory. Since the projects currently have insufficient supply to meet statutory and permit obligations, any EIR/S which analyzes the BDCP impacts and still has exports in all years is by definition faulty and contrary to the law, especially when it assumes massive and repeated water quality violations. Under CEQA, one cannot rely on the base case if the base case anticipates non-compliance with regulatory or legal requirements, as does the BDCP (see Table 31-1). Given the insufficient supply, BDCP’s assumption that there will be a minimum amount of exports in every year is inappropriate. One need only look at the 2013-2014 drought to see that reliable exports of the amounts done during those years necessarily means that the projects’ anticipate not complying with their permit conditions and other mandatory project obligations. BDCP produces no new water and thus does not address the supply situation.

2. Water Code Section 12205/Coordination of Reservoir Releases.

Water Code Section 12205 states “It is the policy of the State that in the operation and management of releases from storage into the Sacramento-San Joaquin Delta of water for use outside of the area in which such water originates shall be integrated to the maximum extent possible in order to permit the fulfillment of the objectives of this part.”

The “objectives of this part” are contained in Sections 12200 and 12201. They are: the maintenance of a “common source of fresh water” in the Delta for beneficial uses in the Delta and for export; the “provision of salinity control” in the Delta; and the provision of “an adequate water supply for the users of water” in the Delta. Taken together, it is clear that both natural flow and stored water must be made available to maintain Delta water quality and to insure in-Delta users have an adequate supply. To insure these objectives are met, Section 12205 mandates that releases from storage for export must be coordinated to meet these in-Delta needs/objectives. The premise of BDCP’s new intakes and twin tunnels, misnamed “Conservation Measure 1,” is
directly contrary to the clear language and intent of these statutes. Diverting water at the very northern end of the Delta for exports via CM1 means that none of that export water will provide any water quality benefits to the Delta and none will be available for in-Delta use. As is clear, but ignored by the projects, the transport of water through the Delta for export was understood and required so that the water would provide in-Delta benefits prior to being exported. BDCP turns the law upside-down and insures that stored export water is not capable of providing multiple benefits, especially those mandated by statute.

To counter this apparently plan language, DWR and USBR raise muffled comments that payment is required for any use of stored water use in the Delta, other than their uses. Significantly, they make no official demand for this and operate on a daily basis to actually proved this “supply” and water quality obligations. However, as their argument goes, in-Delta users must pay the projects if stored water is in the Delta and providing benefits to those users. The Central Delta Water Agency comments address the fallacy of this argument by citing to the controlling law. That controlling law aside, any such issue of payment does not excuse BDCP from configuring a project that is contrary to the mandates of Section 12000 et. seq. Even if any such payment was required, the environmental analysis of the BDCP does not clarify if it includes the provision of the necessary water for in-Delta consumptive use or for the protection of water quality. The BDCP modeling either assumes the provision of such water for the next 50 years or it does not. The projects assert that under no circumstances will they be required to allow stored water to pass by the new intakes for in-Delta, yet do not tell us if the EIR/S includes providing that water.

BDCP must take a position; is it assuming that no water is being provided to fulfill in-Delta supply and quality needs or is BDCP insuring that water will be provided for the 50 years of the project? From SDWA’s perspective, it will continue to seek a contract with both DWR and USBR which contract itself would require the necessary water. SDWA’s continuing efforts at securing a contract are summarized in Attachment 5. Although DWR professes to be ready, willing and able to negotiate and enter into a contract with SDWA, it refuses to acknowledge that it can provide water to the area, refuses to acknowledge it already does provide water to the area, and refuses to provide a draft contract for review by SDWA. All of these must be clarified as they are apparently inconsistent with the EIR/S.

Since the BDCP EIR/S makes no mention of either the projects’ obligation to provide water quality and “supply” benefits to in-Delta users and does not analyze the effects on storage and exports from providing such supply it is inadequate.

3. Fishery Impacts.

The BDCP impacts on fishery species is comprehensively set forth in the other comments in which SDWA has joined. In brief, the initial premise of the BDCP was that by moving the export pump intakes from the southern Delta to the northern Delta, the adverse impacts of those pumps on fish would be significantly decreased. It quickly became evident that this premise was false; moving the intakes did not decrease impacts to fisheries, it simply moved the impacts to a new location and/or to some other fish species. After trying to limit north Delta intake operations to minimize impacts to fish, BDCP quickly developed a new premise whereby the effects of the pumps on fisheries would be mitigated by significant, new in-Delta habitat. Unfortunately, the scientific basis for this premise was lacking. As expressed in the fishery agencies “Red Flag” comments (Attachment 6) and as succinctly put in the comments by the California Advisory Committee on Salmon and Steelhead Trout (Attachment 7), “The concept of habitat restoration measures to offset impacts from increased water withdrawals from the Delta (increased
“reliability”) is not supported by science, including but not limited to the 2010 SWRCB Delta Outflow Criteria. [Fish and Game Code Section 208(b)(2)]

All the fishery agencies concur that although habitat may be desirable and provide some benefits, no scientific evidence exists to confirm the BDCP premise that more habitat will equal more fish (increased populations). This is especially true given that the ability to get permits for a habitat conservation plan requires one to adopt measures which will result in a greater population of the species covered under the plan. Since the BDCP cannot guarantee more habitat will equal more fish, and since the project actually harms the covered endangered species (e.g., the BDCP EIR/S concludes it will result in a reduction in winter run and spring run Chinook salmon smolt survival of 2.9% and 4%, respectively, (see Attachment 6)) BDCP does not contribute to the recovery and would likely jeopardize the continued existence of winter run and spring run salmon. Given this, it cannot meet the requirements for an NCCP under Fish and Game Code for such plans nor meet the requirements for an HCP under federal law.

In recent years, numerous regulatory agencies and other interested entities have concluded that a necessary component in the recovery of Delta related species is an increase in both inflow to and outflow from the Delta. BDCP’s proposed preferred alternative is directly contrary to these positions. Examples of such conclusions include:

SWRCB (2010) “The best available science suggests that current flows are insufficient to protect public trust resources.” [p.2]

USFWS (2010) “... flow in the Delta is one of the primary determinants of habitat availability and one of the most important components of ecosystem function.”

CDFW (2010) “Recent Delta flows are insufficient to support native Delta fishes in habitats that now exist in the Delta...” [p.94] “... restoration for both salmon and steelhead in the SJR primarily hinges on obtaining sufficient magnitude, duration and frequency of spring time flows...”

San Francisco Estuary Project (2011) “Scientists now consider poor freshwater inflow conditions to be one of the major causes for the ongoing declines of fish populations observed in the upper Estuary [p.23].

National Research Council (2012) “… if the goal is to sustain an ecosystem that resembles the one that appeared to be functioning up to the 1986-93 drought, exports of all types will necessarily need to be limited in dry years, to some fraction of unimpaired flows that remains to be determined...” [p.105]

BDCP however does the exact opposite. The EIR/S provides modeling results which indicate that modeled median Delta Outflow under the twin tunnels Delta outflow scenario 2025 and 2060 provide less than the Delta Outflow, Existing Baseline Conditions for 2025 in February, March, April, and May, with the average for the period of February to June also being lower than the Baseline condition. [See Attachment 8]

Further, BDCP maintains and actually increases exports during drier times rather than taking advantage of the high flow periods as shown in Attachment 9.

BDCP’s proposed actions, though purported to increase fish populations, are contradicted by the best science available. The project does not protect and enhance of the species of concern.
In fact the science indicates that the operations and effects of BDCP are contrary to the official positions of the agencies which would issue the permits for an NCCP and/or HCP.

The EIR/S contains many other errors which appear to hide the adverse impacts on fisheries. The EIR/S concludes that the impacts of Alternative 4 (the preferred Alternative) is neutral with regard to flow-related consequences (EIR/S at pages 11-55) but this appears to be contrary to a number of large effects found in the document and the effects which will arise from the significant changes in flow and temperature also noted in the document. Two different life-cycle models are reported in Appendix G. Table 5G-9 shows escapement figures which seem to show significant decreases in escapement under BDCP. In one of the models, the OBAN, these results are due to the predicted flow and temperature changes which occur farther upstream due to BDCP actions. When these adverse consequences appear, the EIR/S ignores them by concluding that actual operations will be different than the modeled actions. This picking and choosing of conditions and operations, as referenced below also cannot be tolerated in an EIR and do not “undo” what the analysis contains.

The other model used was IOS, and it shows significant fry and smolt survival declines in both the early and late term proposals of BDCP. [See Tables 5G-20 - 5G-23. Declines of 26% and greater are predicted by the model; again, contradicting the conclusion contained in the narrative portions of the document.

As stated above, these negative results are discarded by BDCP by criticizing the very models they chose to use for the analysis. The comments and consultation during the development of BDCP identified a number of potential models, but BDCP’s internal logic apparently selected two that they do not trust. In fact, the two models referenced above are believed to underestimate the impacts to certain salmon species. Earlier analysis on this issue was done by NMFS which found decreased survival of all salmon and steelhead species. [See Attachment 10]

One of the identified stressors for smelt is turbidity. The EIR/S notes a 9% decline in turbidity (page 11-267) does not constitute a significant impact on the fish. This decrease in turbidity is a result of the project removing large amounts of Sacramento River water (and its sediment contribution to Delta turbidity) as shown in Figure 5C.D-11. Over 20% of the River’s sediment is siphoned off by the new north Delta intakes. The EIR/S attempts to explain this away by noting that the proposed increase in the Yolo Bypass habitat will later make up for this loss of sediment/turbidity. However, this new habitat is already required under NMFS 2009 Biological Opinion. BDCP expects it to be completed after it is required by the BO. This means that the purported mitigation for the loss of turbidity will not occur until after the twin tunnels and new intakes are operating, and, that this mitigation is actually part of the No Action Alternative/baseline conditions.

With regard to longfin smelt, the EIR/S using findings that suggest outflow/X2 controls longfin smelt abundance. However the analysis ignores other things such as the size of the population from one year to the next. This results in predicted populations based only on outflow without regard to things such as the prior year population. A smaller population will not increase as much as a larger population given the same outflow during the important time period. Even with this bad analysis, the document shows startling declines in abundance up to 33%. [See Table 5C.5.4-39] EIR/S claims that this decline will be mitigated by restoration of habitat is contrary to USFWS conclusions (see Attachment 11).
It is unclear just how the EIR/S analyzes and make conclusion regarding San Joaquin River salmon. We could find no text dealing with the impacts of the project on to-be-established spring run salmon. It appears that for all established species the EIR/S predicts they will all go to populations of zero in the first years of the project (Table 4, Appendix 5G). We find no explanation as to how this is not fatal to approval of the project.

4. **Operations Under Catastrophic Earthquake Scenario.**

The BDCP seeks as one of its main objectives to provide some level of protection against the impacts of a catastrophic earthquake in the Delta. As constantly stated by BDCP, the likelihood of an earthquake to cause multiple island levee failures is a near certainty. As BDCP describes the scenario, ground accelerations from a large magnitude earthquake will result in miles of Delta island levees having their underlying foundations experience liquefaction. This instability will in turn cause miles of levee failures and numerous islands to flood during one catastrophic event. This sudden flooding would cause rapid ocean salinity intrusion and make Delta waters unfit for local use or export. BDCP specifically asserts that the existence of the CM1 facilities would allow the continuation of exports during such catastrophic flood events, whereas without such new facilities, exports would be precluded for many years. Since significant urban and agricultural areas rely on Delta water, any significant cessation of Delta exports would place large urban areas at risk, as well as other areas and uses dependent on Delta exports. Notwithstanding the evidence to the contrary (see for example excerpts for US Army Corps of Engineers comments to the earthquake analysis (Attached 12), BDCP therefore specifically anticipates using the new diversions and twin tunnels to insure a protected supply of water for municipal and other beneficial uses during such catastrophe.

This means that BDCP will seek to use the new facilities under the catastrophic scenario it believes will happen. However, the BDCP EIR/S has no analysis this scenario. The anticipated operations of the new facilities, per the EIR/S, have specific limitations on how and when they may be used. If a catastrophe occurs, these limitations are in significant ways contrary to the expressed need to provide water for municipal uses after a catastrophic Delta flooding, i.e. they do not allow for pumping when needed or desired. What if the earthquake scenario occurs during a time when the new facilities are not to be operated under currently proposed rules or the eventual permits? This is no hypothetical; the operational rules for the new facilities are very specific about when north Delta intakes will be used and when they will not. In fact, the north Delta facilities are not allowed to be operated in approximately half of the years (the drier years) due to low flows in the Sacramento River.

If BDCP specifically anticipates use of the new intakes and twin tunnels during an event they assert is certain to happen, CEQA and NEPA require that this event and the operations of the new facilities be examined. If you plan on doing something under a project, you must analyze the effects of doing that. Unless by some amazing quirk of fate the catastrophic earthquake only occurs during the limited times BDCP can use of the new facilities, one of the primary objectives of the project remains completely unexamined. Just as various operational scenarios are analyzed with and without the new facilities, BDCP is legally obligated to state how the new facilities will be operated during the catastrophic earthquake, how those operations will differ from currently proposed operations and of course, how those changed operations will affect fish, wildlife and other beneficial users.

BDCP cannot rationally state it will operate the new facilities according to current proposed operations since currently proposed operations do not allow for any specific exports from the north Delta facilities at all times. Not only can't BDCP have it both ways, but it
certainly cannot avoid a CEQA or NEPA analysis of conditions it has repeatedly stated will occur.

5. **Water Quality (other than South Delta).**

The 2009 Delta Reform Act calls for achievement of two co-equal goals, including measures to improve water quality (e.g., CWC Section 85302(d)(3) and 85302(e)(5)). However the BDCP does not even try to accomplish the goal of improved water quality. For a large number of water quality constituents, the EIR/S discloses increased levels but simply labels them “significant and unavoidable.” For example, the EIR/S discloses adverse impacts on chloride and bromide concentrations and other water quality constituents. (See, e.g., BDCP EIR/EIS pages 8-407 and 8-425). These worsening water quality parameters could be easily addressed by changes in Delta outflow. Rather than do this, BDCP reduces Delta outflows during dry periods instead of increasing them. Since such additional outflow would affect storage and modeling, BDCP ignores this as an alternative to the proposed project, instead choosing a project that will adversely affect water quality. This intentional limitation on the alternatives analysis is insufficient and defective under CEQA and NEPA.

Under CEQA and NEPA, acceptable and effective mitigation measures must be considered and adopted if reasonable and feasible. The BDCP EIR/S fails to do this (e.g., WQ-5, WQ-7, WQ-11 and WQ-18) but rather states “the effectiveness of [increased flows] to result in feasible measures for reducing water quality effects is uncertain.” There is nothing uncertain about whether more water (increased flows) will lower the concentration of various pollutants or constituents in Delta waters; physics trumps confusion. Rather than conduct the required analysis and evaluation, the EIR/S only proposes to “Conduct additional evaluation and modeling of increased EC (salinity) levels following initial operations of CM1” (Mitigation measure WQ11a (EIR/EIS page 8-427)). This means that BDCP has chosen to undertake a project that will worsen Delta water quality, build the facilities of that project first and only afterwards conduct additional studies to see if dilution/more flows will address the problems. Clearly, BDCP wants to secure the new intakes and twin tunnels regardless of Delta water quality or the mandates of CWC Section 85302(d)(3) and 85302(e)(5). This indicates that the proponents fully understand that what they seek to do is to maximize exports at the expense of Delta water quality and other Delta beneficial uses.

6. **Injury to Legal User of Water.**

One part of the permitting necessary for BDCP will/must be done by the SWRCB. That Board will have to consider the proposed change in point of diversion for the new north Delta intakes. However, in order to approve such a change in point of diversion, the SWRCB must apply and make findings under Water Code Sections 1700 et. seq. which include:

Section 1702. Before permission to make such a change is granted the petitioner shall establish, to the satisfaction of the board, and it shall find, that the change will not operate to the injury of any legal user of the water involved.

Since the BDCP EIR/S contains numerous “significant and unavoidable” impacts related to deteriorated water quality (resulting from the project), the SWRCB would have to find that worsening Delta water quality “will not injure any legal user of water.” Clearly such a finding is impossible given the current SWRCB Water Quality Objectives for the Protection of Beneficial Uses set forth in its D-1641. As an example, BDCP proposes to relocate the Emmaton
compliance location to Three Mile Slough near the Sacramento River. This means that additional poor quality water would be allowed to intrude further into the Delta which is a serious degradation of Delta water quality. [Again, in direct contradiction to the 2009 Delta Reform Act. (BDCP EIR/EIS page 8-146)] Further, the modeling of these water quality impacts contains serious flaws in that it shows mismatches between daily and monthly input data that result in large unrealistic daily spikes in salinity. These render the BDCP analyses of changes in water quality invalid, cannot be considered the “best science available” and do not pass muster under CEQA and NEPA.

Since the BDCP will result in violations of water quality standards, by definition it will harm other legal users of water reliant on and protected by those standards. Absent any meaningful analysis of those impacts and the elimination or mitigation thereof, the BDCP cannot pass muster under CEQA or NEPA, or the other regulatory approvals it must secure.

As referenced above, the EIR/S shows significant violations of SWRCB water quality standards under existing conditions (see Table C1-3 of Appendix 8G; Chloride on page 8G-3). Neither CEQA, NEPA nor the SWRCB condone proposed projects which will result in serious and repeated violations of Water Quality Objectives. Put another way, the law does not allow anyone to undertake a project which will result in violations of regulatory requirements.

7. **Modeling.**

In addition to other flaws noted herein, the BDCP modeling contains three fatal flaws which preclude it from being any sort of useful analysis for CEQA and NEPA, much less any sort of informative analysis of the proposed project’s impacts. These fatal flaws are more comprehensively covered in the Contra Costa Water Agency comments to BDCP, and a summary thereof is included herewith as Attachment 13.

The first is that “assumptions, errors and outdated tools used in the BDCP modeling result in impractical or unrealistic CVP and SWP operations.” As an example, with regard to climate change inflow to Millerton Lake on the upper San Joaquin River is expected to decrease under future climate scenarios. However in BDCP modeling, Millerton Lake storage is increased by inappropriately reducing deliveries to the Friant Division of the CVP. The modeling overestimates Millerton Lake storage, and thus releases which affects downstream water.

Similarly, the BDCP modeling under different climate change scenarios does not incorporate any reasonable actions taken by project operators to adapt to the changes in available water. The BDCP modeling results indicate that reservoirs reach minimum pool in droughts and regulatory demands go unmet, something that operators and regulators do not allow to happen. As in the current drought, operators and regulators propose and adopt changes to operations and to permit obligations (decrease CVP and SWP release requirements) in order to (and do) avoid reaching minimum pool conditions in reservoirs; the opposite of what the BDCP modeling assumes/concludes. Because the model ignores what drought decisions will have been made to address these very dry conditions, it masks the effects of the project by making the future conditions look so bad, that the BDCP ends up looking beneficial because things cannot get any worse than the modeling shows for the without project.

Second, the BDCP modeling has an ill-defined and unrealistic “High Outflow” scenario. That High Outflow scenario is one possible alternative action under BDCP if it is later determined that the protection of fisheries requires more water than BDCP initially intends to provide. The model places the main responsibility of providing this “extra” water on the SWP
without any recognition of the "rules" under which the CVP and SWP allocate water among themselves. The "Coordinated Operations Agreement" (or "COA" which is set forth in federal law) has specific rules on how and which project's water is used for various purposes, and what water each can export. Put another way, it determines how the projects "share" obligations and exports. When BDCP modeling assumes the SWP will provide water needed for the High Outflow scenario, it is contrary to the COA. BDCP modeling contains no treatment of how the CVP would "payback" SWP the water it dedicated for the High Outflow scenario.

Further, it appears there is no real source for this extra water needed for the High Outflow scenario. It cannot come from existing storage as that would further threaten cold water pool needs for protecting fish habitat and affect carryover. Proposals to "purchase" the water from other users/right holders on (mainly) the Sacramento system would have to come mainly in the spring; at a time when most of those other users have little or no irrigation needs. Since the potential sellers are not using water which they could instead sell, the burden for the extra flows would have to again come from storage with the accompanying adverse impacts to fisheries and carryover.

Third, the modeling of when and how much water would be taken from the new north delta diversions (and when and how much from the current south Delta diversions) contains an artificial constraint which limits north Delta diversions, which is itself contrary to the BDCP project description. This constraint also contains errors which affect the No Action Alternative. DWR and USBR have corrected these errors in their current models but not in those used for BDCP. The BDCP model also contains an error which does not accurately reflect summer operations of the south Delta diversions which are intended and required to improve water quality impacts in the southern Delta. The result of these errors is that the BDCP modeling underestimates the amount BDCP will be diverting from the new north diversions and overestimates the amount to be diverted from the south diversions. In that event, lower total diversions from the southern Delta would mean less Sacramento River water would be brought into the area and a consequent worsening of water quality in those channels. This potentially significant and damaging impact remains unexamined in the EIR/S.

In summary, significant problems exist in the models used by BDCP which result in unusable results. Many of the problems with the models have been subsequently fixed by DWR and USBR, but the modeling done for the BDCP remains uncorrected. The information thus produced by the models, included in the EIR/S and used to evaluate the impacts of the project are certainly not the best available science and provide no meaningful analysis. Thus the EIR/S are inadequate and insufficient under the applicable CEQA and NEPA law.


The modeling which predicts the impact on southern Delta salinity is incorrect and must not be accurately describing the hydrodynamics of the southern Delta. The construction and operation of the CVP (in coordination with the SWP) has reduced the inflow to the southern Delta. Other upstream projects and uses have also decreased Delta inflow from the San Joaquin

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2 As more fully explained later, SWP and CVP exports from the southern Delta are necessary to bring more of the fresher Sacramento River into the south Delta to dilute CVP salts there which enter from the San Joaquin River. The DWR and USBR permits obligate them to meet water quality objectives in that area, and this is one action they undertake to try to meet those objectives.
River. The CVP also delivers millions of tons of salt to the southern valley, much of which enters the San Joaquin River as surface or subsurface drainage with salinites which exceed downstream standards by several orders of magnitude. Further, since the export pumps of the CVP and SWP drastically lower water levels in southern Delta channels, flow patterns in the area are radically changed. Since the area naturally contains some dead-end channels, the changed flow patterns exacerbate null zones where no net flow is present to flush the CVP introduced salts out. [See Attachment 14] Thus the impacts of the CVP and SWP on the southern Delta are: decreased inflow, lowered water levels, creation and/or exacerbation of null/stagnant zones and the introduction of hundreds of thousands of tons of salt each year.

In response to this situation, DWR and USBR eventually agreed to the Temporary Barrier Program which installs three rock barriers each year (except in rare high summer flow years). These barriers hold the incoming tide to partially mitigate the CVP and SWP adverse impacts to local water levels. It was originally thought the barriers would also create net flows in the main channels to improve water quality, but subsequent operations and modeling indicate that does not generally occur. The rock barriers have limited operational flexibility (flap gates on the culverts running through the rock barriers) and attempts have been made to change operations to induce net flow in limited areas (e.g. Old River between Tracy Old River barrier and Old River at Tracy Blvd. Bridge). In recent years an additional one foot of rock has been installed on the Middle River barrier (on July 1 or thereafter) in order to induce further net flow in Old River. All of these actions have had limited, or undetermined results, though efforts and analysis continues.

It is important to note that the barriers are a partial mitigation of the adverse CVP and SWP impacts. Absent the protection of the barriers, the projects would be susceptible to litigation and potential injunction relief to preclude the continued damage to local diverters.

The Head of Old River barrier, though permit-wise tied to the Temporary Barrier program is not actually associated with the temporary barrier goals of protecting agricultural diversions. The HOR, by blocking any San Joaquin River flow into Old and Middle Rivers, adversely impacts local water levels and deprives local diverters of some supply. This occurs especially on the ebb tide just downstream of the HOR when the outgoing flows cannot be supplemented by the incoming San Joaquin River flow. To address this problem, DWR’s installation of the HOR is controlled by an agreement with SDWA wherein certain conditions require the opening of the culverts on the HOR to provide downstream flow, or actually require removal of the barrier under some circumstances. To date, the fishery agencies do not seem to understand that the desire to protect fish while allowing exports simply redirects the harm to innocent third parties; southern Delta diverters.

It is not well understood that the San Joaquin River is practically speaking, no longer connected to the Bay. This is because the amount of flow in the River is rarely greater that the consumptive uses and export diversions between the point where the River enters the Delta and where the Delta meets the Bay. To explain, if the River flow is 1000 cfs but surface evaporation, riparian evapotranspiration and agriculture crop evapotranspiration exceed the 1000 cfs flow, then the River cannot reach the Bay as all of its water is consumed before it can get there. To expand the example, when exports are also present, they too remove water from the channels, sometimes upwards of 8-11,000 cfs. Hence the flow of the River would have to be 10-12,000 cfs to have enough flow to move through the south Delta. Unfortunately, the flow of the river in any particular year is between 500 cfs and 5000 cfs. The higher end of the flow is normally only during the spring pulse flow for fish (approx. one month) and even then, the River flow is almost always less than exports and the other local demands. This is evidenced by the BO which limits reverse flows in the area. Given that the River is normally insufficient to supply local needs
when exports are present, the "gap" in supply is pulled naturally from the other areas of the Delta (including on incoming tides) and of course is intentionally pulled there by the export pumps themselves which are bringing Sacramento River water in.

As one might imagine, if the River cannot reach the Bay and water is flowing into the area from two directions, there is no net flow, the area becomes a stagnant zone and water quality deteriorates.

Local consumptive use and diversion needs in the southern Delta are a function of many conditions, but especially agricultural demands. Thus, the amount of diversions needed and undertaken by south Delta farmers depends on the time of year (do the crops or plants need water) and temperature. Although high demand is normally in summer months when crops are growing and temperatures are high, the demand occurs all year. In dry times, water demand can be high even in early winter if a lack of precipitation means pre-irrigation and early irrigation is needed for local crops.

Local demand therefore could be from a few hundred cfs per day up to the summer maximums which can approach 1400 cfs (see D-1641, page 32). The EIR/S includes a number of alternatives/scenarios which are impractical, but instructive as to the EIR/S's accuracy. Any time the BDCP suggests that southern Delta export diversions are shut off (as in Alternative 6 and sometimes Alternative 4 the preferred alternative), the impacts on local water quality are significant. For example in a dry year (like 2014) diversion needs of local farmers could approach 1000 cfs in late winter and early spring. Water quality at that time can be very bad, in fact this year water quality violations occurred virtually all winter and spring. This means that local conditions are damaging to beneficial uses. Under BDCP Alternative 6, BDCP would have no southern Delta exports during this time. That means significantly less of the fresher Sacramento River water is drawn into the southern Delta to dilute the CVP salts. This is because the exports pumps are no longer drawing that fresher water to the area, only the tides are moving it.

With no CVP and SWP export pumps, the southern Delta and portions of the central Delta become a null zone, without any net flow. This is because there area has inflows from both directions; on the southern end of the Delta the San Joaquin River flows in while other Delta inflow or Bay water flows in from the northwest. Flows from two directions mean no net flow at some point in the area. With regard to quality, that means all of the accumulated salts in the area and all of the salt in the San Joaquin River flow remains in the area. If the summertime flow at Vernalis is 1000 cfs for 90 days at an EC of 700, that means (1000 x 700 x 0.00175 x 90) 110,250 tons of salt enter the area but do not leave the area in just the summer. That number does not take into account the salt already in the area from the proceeding months. Since the various channels of the southern and central Delta have differing flow patterns there will be differing impacts as the salts will not accumulate the same at all locations. However, during those times when the standards are already being exceeded or when water quality is approaching a standard, adding and collecting that huge amount of salt will adversely affect all beneficial uses, especially the agricultural uses which are supposed to be protected by those standards.

Anytime San Joaquin River flows are less than consumptive uses in the southern or and central Delta, that "gap" in flow will be made up by any other Delta inflow, whether from the Sacramento River, other tributaries or the Bay.
It is incumbent on the BDCP EIR/S to do the simple math calculations to check on their obviously incorrect modeling results. One can easily estimate the salt in the are by looking at measured EC, then calculate the amounts of salts delivered by the San Joaquin River over any period of time and then conclude how much salt is where. Any analysis which does not reflect significant impacts from the collection of hundreds of thousands of tons of salt in a no-net flow area must be wrong.

Violations of standards are not the only measurement of harm to diverters. Any deterioration of water quality translates into decreased crop production as set forth in Attachment 15. Thus the EIR/S conclusions that few additional exceedances of standards is no significant is unsupported unless and until it evaluates how any particular increase in salinity affects crop damage.

A more detailed description of the hydrodynamics of the southern Delta and how salt accumulates in the various channels can be found in Attachments 12 and 14, which are the 1980 report “Effects of the Central Valley Project on the Southern Delta Water Supply” and the “Project Update Presentation” (a Power Point) May 15, 2014 authored by AE.COM-ICF Consultants respectively. Chapter VII of the 1980 Report gives a concise description of how various factors including inflows, tides and export pumping affect local water conditions. The IFC modeling work shows updated information on those same south Delta flows and the mixing of the poor quality San Joaquin River flows in the area and the accumulation of the CVP salts.

With that background, we now turn to the BDCP modeling of that project. Initially it must be noted that the BDCP EIR/S is a near indecipherable document. Its presentation of numerous Alternatives, with varying flow regimes and uncountable other parameters can only be understood by comparing hundreds of pages of data, charts, graphs and conclusions. Summary descriptions of effects in the text must be compared to mounds of data, charts and graphs in the Appendices and other attachments, sometimes revealing conclusions contrary to the summaries, or conflicting, relevant data not mentioned in the summaries. If for no other reason than to create a document that is partially user friendly, the EIR/S should be re-written and re-circulated for review. It is for all intents and purposes impossible for a small agency like SDWA to review, analyze and comment on tens of thousands of pages. BDCP gets an “F” on the EIR/S with regard to adequately informing the public.

The BDCP modeling results relating to EC (salt) appear at a number of pages, especially in Appendix 8H. As previously described, the clear and undisputed inaccuracies of the modeling discovered by MBK and others means that the EIR/S results cannot in any way lead to a meaningful evaluation of the impacts of the project. This of course means that specified BDCP operations, including exports or opportunities for exports cannot be known or modeled until the corrections are made to the models.

The unreliability of the modeling is highlighted by and examination of the data in Appendix 8H. Table EC-6 compares EC Objective violations under the Existing Conditions, the No Action Alternative and Alternative 6. Alternative 6 as mentioned above (including 6A, 6B, and 6C) is the alternative in which only exports from the new diversion facilities in the north Delta and the twin tunnels occur, no export pumping is from the current SWP and CVP facilities in the southern Delta (see EIR/S at pages 3-71, 3-73 and 3-74). Put another way, Alternative 6 is only pumping out of the north Delta and not pumping out of the south Delta.

Table EC-6 indicates that under Alternative 6 (no export pumping from the southern Delta) water quality exceedances are fewer than under the Existing conditions (though similar to
the No Action Alternative). As described above, when the flow of the San Joaquin River is less than the evaporation from channel surfaces, evapo-transpiration of riverine riparian habitat and evapo-transpiration of local agricultural lands, there is no flow out to the Bay. That is to say, “nothing leaves the area.” The exception to this the water which leaves the area via the CVP and SWP export pumps. These pumps pull water from the area and at the same time remove some of the salts that entered via the San Joaquin River and which accumulated there.

With no export pumping in the area (Alternative 6) all of the salts entering the area will stay in the area and concentrate. This means that hundreds of thousands of tons of salt will stay in the channels. It is impossible for water quality violations to decrease when more salt remains in the area. Although fall and winter times are also a problem, let us examine summer months to highlight this problem. From June through October, the three agricultural barriers are installed and (generally operated) in the south Delta to protect local diversers. Water and salt enter the area upstream of the barriers and water enters on the incoming tide from downstream of the barriers. The two waters (and salt) mix but are not allowed to flow out on the ebb tide because the barriers prevent that ebb flow. If the barriers were “water tight,” none of the water or salt entering the area would be able to leave the area (exit downstream past the barriers). However the current system is not perfect. The barriers are made of rock which means water leaks through them (goes out on the ebb tide). In addition, the heights of the barriers are such that they are below the high-high tide and so some water flows back over them, downstream on the ebb tide. Once downstream of the barriers, the net flow is to the export pumps of the CVP and SWP, and so any salt in the ebb tide is exported. This export of “leakage” is the only way by which any salt leaves the area unless the flow of the San Joaquin River is greater than local consumptive use demands and exports; which means there would be enough flow to reach the Bay and flush the area. Practically speaking this is an extremely rare event under current operations.

Thus, according to the EIR/S, if BDCP stops all pumping from the south Delta the water quality will improve (or stay the same) even though less salt is removed from that area. This is not just an inconsistency, it is a fundamental flaw in the evaluation of the project. Allowing more salt to stay in an area with poor circulation necessarily means that the water quality will deteriorate.

The BDCP modeling scenarios cannot be assuming some sort of additional dilution will be present. Recall that the operation of the export pumps in the southern Delta intentionally draws more of the better quality Sacramento River water into the area. That better quality water dilutes the poor San Joaquin River water (especially upstream of the barriers) which dilution fundamentally determines the EC as measured at the Water Quality Control Plan compliance locations in the south Delta. Absent the export pumps, the Sacramento River water reaching the southern Delta will be of a worse quality as it will now be blended with more Bay water. This deterioration is clearly shown in the BDCP modeling which indicates worse water quality at the compliance station of Emmaton and other downstream locations (see EIR/S page 8-436 et. seq.)

Thus under the BDCP analysis, less salt is removed from the area, less dilution will occur, but water quality will improve (or stay the same) in the south Delta under Alternative 6. Of course Alternative 6 is not the preferred alternative. However, if the BDCP modeling results are wrong for an alternative, then logically the modeling results for the other alternatives are too suspect.

Turning to winter, we again see that the BDCP modeling is again faulty or is using incorrect inputs. BDCP suggests that the eventual adoption and implementation of the salt TMDL on the San Joaquin River will decrease the salinity of the water at Vernalis. The opposite
is the case. The Regional Water Quality Control Board is developing a salt TMDL for the stretch of the River between (approximately) Vernalis and the mouth of the Merced River. The main focus of the Regional Board and the Committee developing the draft TMDL is to institute a real time operations program to coordinate saline discharges with assimilative capacity in the river (see Lower San Joaquin River Committee webpage http://www.waterboards.ca.gov/centralvalley/water_issues/salinity/lower_sanjoaquin_river_committee/administrative_materials/index.shtml.) Under current conditions, drainage from the valley refuges and other locations enters the River in large amounts in winter, causing a spike in salinity. This spike is subsequently diluted by any available flows and by releases from New Melones (Stanislaus River) by the USBR. The high salinity is diluted to meet the 1.0 EC standard at Vernalis. The Real time operations being anticipated by the Regional Board simply spread out the timing of the dilution, they do not decrease any of the salt load entering or in the River. This means that at times when (without the TMDL) the River was of good quality and the EC well below the standard, it will now (under the TMDL) be closer to the standard, or worse because that fresher water will now be used to dilute the rescheduled bad drainage. The TMDL will only change the timing of the poor quality drainage, it will not improve the quality at either Vernalis or in the south Delta. Since New Melones is operated to meet the Vernalis standard, nothing will change except the current higher salt loads at higher flows at certain times will be exchanged for lower flow with higher concentrations during more times. Since New Melones dilutes the salt to the standard already, shifting the timing of the drainage will not decrease the EC of the water at any time because any improvement in quality from the rescheduling will simply result in less New Melones dilution being released; there is no improvement in EC. Although a minuscule amount of additional water may be in the system as dilution (doubtful), that amount would be insignificant and thus the same water and same salt would enter the southern Delta over the same periods. Nothing therefore changes for the better. And of course, when this same salt and same water reach the southern Delta is still will get stuck except in those very high flow periods.

Again, under Alternative 6, BDCP concludes this will result in an improvement in water quality (or no change). The only time the salts will leave the area will be when the River flows exceed the consumptive use needs of the area between Vernalis and the confluence of the Sacramento and San Joaquin Rivers; a truly rare event. At all other times the central and southern Delta will have worse water quality; the opposite of what the BDCP modeling shows.

Alternative 4 is the preferred alternative of the BDCP, and it anticipates continued exports for the existing CVP and SWP facilities in the southern Delta, though less from the south than is currently done. Modeling results for this Alternative are on page 8H-5 in Table EC-4. Initially, the comparison of “days an Objective is exceeded” with the “days an Objective is out of compliance” in this Table is troubling. Per the EIR/S, the difference between the two deals with Objectives that have averages, such as the southern Delta salinity Objectives which are 30-day running averages. This only becomes an issue when the Objective changes from 0.7 EC to 1.0 EC on April 1 of each year. According to the quoted footnote in D-1641, if on the 30th day after the lower standard kicks in the criteria is exceeded (0.7 EC), all the prior 29 days are counted as violations. Although this does occur (this year the lower 0.7 EC Objective at Old River at Tracy Blvd. Bridge has never been in compliance) it is a very rare occurrence, associated only with droughts. In all other years, the fishery pulse flow on the San Joaquin (beginning generally on April 15) provides such high flows of good quality water that the three southern Delta objectives are quickly met. Thus, there is no apparent reason why or how there can be more days out of compliance than there are days of exceedance as the Table shows. Whatever the modeling may or may not accurately show, any violations during this short period are mostly irrelevant to an
examination of a project's effects. The data should be corrected or removed. Comparing this quirk of compliance rules with anything is not informative and likely contains false information.

Table EC-4 (again, Alternative 4 the preferred alternative) shows that under all scenarios, the number of days the southern Delta salinity standard at Old River/Tracy Blvd. Bridge is exceeded increases under the preferred alternative. [From 250 days to 327, 317, 335, and 320 for H1-H4 respectively.] At Brandt Bridge the water quality improves and at Old River/Middle River it stays virtually the same. However, the monthly changes in Table EC-15A show a different picture. From June to September, this Table shows that water quality at the three locations goes up and down in no consistent manner and virtually unrelated to year types. These numbers cannot be correct.

With regard to Old River/Tracy Blvd. Bridge, the only effect the BDCP can have on the southern Delta is to remove less salt as explained above. Even with the continuation of exports from the south Delta facilities of the CVP and SWP under the preferred alternative, diversions from that area will be less than are currently done. With less exports, there will be more salt left in the area, and hence the concentration of salt will have to increase. This means that salinity can only rise. Table EC-15A indicates that at this location in summer months there are varying impacts to salinity when comparing the Existing Condition and No Action Alternative to the preferred alternative, Alternative 4. Since the amount of water entering the southern Delta and the amount of salt entering the southern Delta remains unchanged under each of these scenarios, there can be only one result which is higher salinity levels. The varying changes reported in the EIR/S cannot be correct.

The EIR/S does not tell us how any reputed rise (or decrease) in salinity compares to the conditions at the time. Does a 10% increase occur when the EC is 10% below the standard? Any such rise is not revealed in the modeling results in Table EC-4 unless it causes a new violation and monthly changes shown in Table EC-15A do not warn us of the EC level being affected. In addition, the degree to which a violation occurs in Table EC-4 is not revealed; is the violation 1% higher than before or 20% higher? Further, the modeling does not reveal what happens in areas such as that downstream of this compliance location which is the null zone where EC levels are substantially above that measured at the compliance locations.

With regard to the other two southern Delta compliance locations, (Old River at Middle River and Brandt Bridge) the BDCP again does not result in more dilution water entering the area (it results in less) and it does not result in less salt entering the area. Therefore, it is an impossibility to have water quality improvements or to have no change as shown in the Tables referenced above. Clearly, the modeled results are inaccurate. As referenced above and more fully explained in CCWD’s comments, the identified flaws in the models, the false assumptions being used therein, and the problems associated with using models which have different time-steps make all the modeling unusable.

Just as Alternative 6 includes no export diversions from the southern Delta, the preferred alternative also includes times when the new north Delta diversions are being used and the current southern diversions are not. As previously presented above, violations of water quality standards can occur in fall, winter, spring and summer. When BDCP uses the north diversions only, the CVP salt in the southern Delta and the constant addition of more CVP salt via the San Joaquin River will mean that a build-up of salt will continue at a faster pace than before BDCP, no matter what the season. The modeling does not seem to accurately reflect this necessary outcome for the most part. It does show isolated instances such as a 10% increase in EC in January for all years (average) (see page 8H-16, Table EC-15A). One must assume that the
majority of these increases occur during drier times, which means the supply water in the channels at a time when local diverters must pre-irrigate their land (due to lack of rain) is significantly worse under the project (which of course should be significant impact of the project).

BCDC masks these effects by averaging flood and wet years with drier years. Per Table EC-4, an increase in violations of 77 days (difference between 250 days and 327 days) is "insignificant" (according to BDCP) because those 77 days are only as 4% increase in all days. In actuality, it is a 31% increase in days violated, and may significantly increase the violations in any particular year. An accurate comparison would look at when the increased violations occur. Is the increase at one time of year? Is that time more important than other times to the relevant crops? Does the increase cause crop damage in any particular year? These questions indicate that lumping all violations together and ignoring when violations occur is improper.

It is also of note that per the MBK modeling analysis (Attachment 13) the actual diversion from the existing SWP and CVP in the south Delta under BDCP could be 460 TAF/year less than was analyzed in the EIR/S. Such a significant decrease in the removal of salt from the area should reveal drastic changes in EC levels in the southern Delta. This effect remains unanalyzed.

Lastly with regard to this issue, the State and Federal Anti-Degradation policies cannot be construed to allow this level of degradation to Delta waters. The BDCP and its EIR/S attempt to address this issue via mitigation measures, especially WQ-5, WQ-7, WQ-11, and WQ17. However, these measures seek only to conduct further modeling and determine what might be done to address the worsening water quality resulting from BDCP. Besides being inadequate, the anti-degradation policies as well as CEQA and NEPA do not allow a project proponent to build and operate the project and then later try to figure out how to mitigate its impacts.

It is informative to note that the BDCP anticipates a project that not only will continue and increase water quality violations in the southern Delta, but also needs to alter X2, move compliance locations and alter the Export/Inflow ratio limitation contained the CVP and SWP permits and/or in applicable Biological Opinions. It is inconceivable that a proposal to make everything worse could be contemplated much less approved.

9. **No Legal Authorization.**

In 1982 the voters of California rejected the law created by SB 200. SB 200 authorized the State via DWR to construct an isolated facility in the Delta to take export water from the north Delta before that water was able to flow through the Delta, just as the currently proposed BDCP seek to do, only now using twin tunnels instead of a canal. Whether or not DWR was authorized to undertake such a project without the passage of SB 200 is of course moot. However, in 1982 the Legislature granted DWR such power. Subsequently, the people of California through the Referendum process specifically revoked that power and voted to "undo" SB 200. Hence the last legislative act by California was to revoke the power of DWR to undertake the construction of an isolated facility for exports. DWR's current actions in BDCP are therefore by definition in excess of their powers.

If the Legislature approved the building of a new office structure for DWR; then voted to undo that authorization, would DWR be able to go forward with the office structure simply because it found willing partners? Of course not. Under the law, the last act by the
Legislature/People of the State controls, and therefore DWR is not authorized to proceed with BDCP absent specific legislative approval.

For the above reasons, the EIR/EIS is insufficient to support the proposed project and must be redone and recirculated. In addition, the plan itself does not meet the regulatory conditions which would allow permitting and should be abandoned. DWR and USBR should undertake a new process to first quantify the amount of water which might be available in any particular year, determine the priority needs for that water, and then calculate surplus supply available for export. It is incumbent upon DWR and USBR to also identify and fully mitigate all adverse impacts of the SWP and CVP on fishery, south delta agricultural diverters, and other users.

Very truly yours,

John Herrick, Esq.