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July 21,2014

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Ryan Wulff
National Marine Fisheries Service
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814

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VIA U.S. MAIL

**JUL 22
2014**

The Honorable Sally Jewell
Secretary
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

**NA'rLM^RINt FISHBRtBS
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'-----SACRAMENTO,CA.

The Honorable John Laird
Secretary
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, California 95814

Re: Comments on Bay Delta Conservation Plan and Draft EIR/EIS

Dear Mr. Wulff:

Our agencies-collectively the American River Water Agencies ("ARWA") -supply water to over 1,000,000 people in the American River region. We recognize that significant efforts are necessary to provide reliable water supplies to all of California. Unfortunately, the draft Bay Delta Conservation Plan ("BDCP") presents significant risks to the water supply reliability of our region and contains numerous flaws that undermine its analysis and potential effectiveness.

While the BDCP documents' analysis of climate change is seriously flawed for the reasons set forth below, they highlight the potential for climate change to cause significant disruptions to water supply reliability. In lieu of the piecemeal approach taken by this BDCP proposal, the State should comply with the Delta Reform Act mandate by addressing the effects of climate change on the reliability of water supplies on a statewide basis. This requires a fundamentally broader analysis than provided in the current BDCP documents, including redesigning the operating plans for California's existing water supply infrastructure and reassessing the State's approach to water quality regulations in the face of rapidly rising sea levels and changes in precipitation and runoff.

We believe that the BDCP and its associated documents require significant reconsideration and revision to address the below-described critical shortcomings before any decisions regarding implementation can be made.

As discussed further below, the BDCP and draft EIR/EIS ("DEIR/EIS") contain significant flaws that include:

- The BDCP's hydrologic analysis contains fundamental flaws and unrealistic assumptions, including that under future climate conditions, Reclamation would drain Folsom Reservoir to its dead pool in one out of ten years. These actions would make it impossible for Reclamation to satisfy the settlement contracts and water-right permit terms that protect our agencies' water supplies, and they would severely jeopardize the American River fisheries that rely on stored cold-water releases from the reservoir. The proposed economic and environmental impacts that would result from these plan actions are unacceptable to our agencies and the communities we serve.
- Numerous technical flaws in the BDCP and DEIR/EIS violate the National Environmental Policy Act ("NEPA") and the California Environmental Quality Act ("CEQA") and undermine the documents' usefulness to the public. The documents are so disorganized and confusing that they do not serve the fundamental function of informing the public about the proposed plan and its likely impacts on the environment. Furthermore, the plan suffers from numerous flaws in the level of environmental analysis, the analytical baseline, and the lack of analysis for short- and medium-term impacts. The fundamental problems in the BDCP's climate change analysis ripple through the document and prevent accurate analysis of the plan's long-term impacts.
- Many elements of the BDCP are poorly conceived and would violate the Endangered Species Act (16 U.S.C.A. §§ 1531-1544) ("ESA") and the Natural Community Conservation Planning Act (Fish & Game Code §§ 2800-2835) ("NCCPA"). The BDCP fails to satisfy the most basic funding requirements of the ESA and the NCCPA because nearly all of the funding sources it identifies are too speculative, and there are no guarantees that anticipated funding will be adequate to implement the proposed conservation measures. Other elements of the plan, including the proposed regulatory

assurances under the "No Surprises" rule and the draft implementing agreement released in May 2014, are vaguely defined and do not satisfy requirements under federal and state law.

Because of the numerous fundamental flaws in the BDCP and DEIR/EIS, the project must be significantly reconsidered and revised before any decisions can be made regarding permitting or implementing the plan. Regarding the long-term impacts to Folsom Reservoir operations from the plan and climate change, we renew our prior requests that Reclamation develop, and the revised BDCP integrate and analyze, a long-term plan for Folsom Reservoir operations that protects our region.

COMMENTS ON THE DRAFT BDCP AND DEIR/EIS

Preliminarily, all of our agencies are members of the North State Water Alliance ("NSWA"). We agree with and incorporate the comments of the NSWA on the BDCP and DEIR/EIS.

A. The BDCP's analyses of surface water, groundwater, and socioeconomic impacts to the American River region are inadequate.

The BDCP's analysis of impacts to our region is flawed because it assumes that Folsom Reservoir could be operated in a manner that would violate several settlement contracts, as well as water-right permit terms, that apply to the water diverted to storage in the reservoir. The DEIR/EIS's modeling assumes that it would be legally possible for Reclamation to allow Folsom Reservoir to be drained below its water-supply intake to "dead pool" as assumed in the BDCP modeling -in one out of ten years, which would make it impossible for Reclamation to satisfy the settlement contracts and water-right permit terms that protect local communities' water supplies from the reservoir. Because that assumption is invalid, the modeling, and the DEIR/EIS's environmental analysis, is not defensible and does not comply with CEQA and NEPA. The BDCP compounds these errors by also failing to analyze the proposed project's impacts on groundwater and socioeconomics in our region.

1. The BDCP improperly assumes that Folsom Reservoir could be operated to preclude water-supply diversions from the reservoir.

BDCP's hydrologic modeling is flawed in relation to the American River region for several reasons. It improperly assumes that Reclamation would, and would be allowed, to violate numerous contracts and water-right permit terms that protect water supplies in the American River region. That modeling probably underestimates the risks to water supplies from Folsom Reservoir that would occur with BDCP's implementation because it apparently does not account for probable adjustments to CVP operations under the Coordinated Operations Agreement (COA). Finally, contrary to experience in this severely dry year, that modeling assumes that Reclamation, the State Water Resources Control Board (SWRCB) and other agencies would not adjust operations to protect water supplies for municipal purposes. For these

reasons, BDCP's hydrologic modeling of Folsom Reservoir operations -and therefore many of the DEIRJEIS's environmental analyses that are based on that modeling- is inadequate and inconsistent with CEQA and NEPA.

Several of our agencies rely on diversions directly from Folsom Reservoir as their primary water supply. In particular, approximately 500,000 people in the Cities of Folsom and Roseville and San Juan Water District rely on diversions directly from the reservoir through a shared municipal intake. That intake is dry when the elevation of the reservoir drops below approximately 330 feet above mean sea level (msl). That level generally exists when the reservoir has less than 90,000 acre-feet (AF) of water in storage. That intake's capacity is impaired when reservoir levels are well above 330 feet msl. Impairment of the intake's capacity begins when the reservoir's level drops below about 392 feet msl, which is when there is about 328,000 AF of water in storage.

Water supplies under many different water rights and contracts depend on the capability of this Folsom Reservoir municipal intake to deliver water. The City of Folsom holds water rights in the American River that date from 1851 and are reflected in CVP settlement contracts with the United States. (Contracts Nos. DA-04-167-eng-330, 14-06-200-4816A, 14-06-200-5515A.) Under these contracts, the City of Folsom holds rights to 27,000 AF per year (AFY) of water supplies that are not subject to dry-year reductions. San Juan Water District holds water rights in the North Fork of the American River that date from 1852 and are reflected in a CVP settlement contract with the United States. (Contract No. DA-04-167-eng-610.) Under that contract, San Juan holds rights to 33,000 AFY of water supplies that are not subject to dry-year reductions. At the time that Reclamation was applying for its water-right permits for Folsom Reservoir, many local agencies were applying for similar permits that would have had priority over Reclamation's applications under the area-of-origin laws. (Water Code § 11460; State Water Rights Board Decision 893, pp. 5-6 ("D-893").) Those local agencies included the City of Roseville and San Juan's predecessor Fair Oaks Irrigation District. (D-893, p. 5.) Rather than grant those applications and create administrative difficulties with Reclamation, the State Water Rights Board granted Reclamation's applications, but inserted a term in Reclamation's permits requiring that Reclamation satisfy needs in Placer, Sacramento and San Joaquin Counties before exporting American River water appropriated at Folsom Reservoir. (D-893, pp. 51-54.) Specifically, D-893 stated, at page 54:

Permits are being issued to the United States to appropriate enough American River water to adequately supply the applicants naturally dependent on that source and availability of water to such applicants is reasonably assured by the terms to be contained in the permits to be issued to the United States restricting exportation of water under those permits insofar as exportation interferes with fulfillment of needs within Placer, Sacramento and San Joaquin Counties. Other applicants in more remote areas must if necessary seek water from other sources.

In its 2006 Delta decision, the Court of Appeal interpreted the relevant water-right permit term -D-893's Term 14- and D-893's discussion of it as follows:

[T]he Water Rights Board was explaining that the availability of water to applicants within Placer, Sacramento, and San Joaquin Counties that were naturally dependent on the American River was "reasonably assured" by the permit condition that restricted the export of water appropriated under the American River permits until the needs of those counties were fully met.

(State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 814.)

As adopted in D-893, Term 14 initially set a 1968 deadline for the execution of CVP water-service contracts in the American River region that would receive protection under that term. Reclamation later agreed to extend that deadline to 1975. (See SWRCB Decision 13S6, p. 8; Decision Amending And Affirming As Amended, Decision 13S6, p. 1.) Five agencies now hold CVP water-service contracts that are intended to provide the water supply reliability mandated by Term 14: (1) the City of Roseville; (2) San Juan Water District; (3) Placer County Water Agency; (4) Sacramento Municipal Utility District ("SMUD"); and (5) Sacramento County Water Agency (via an assignment by SMUD). (See Contract Nos. 14-06-200-3474A (Roseville); 06-07-20-W1373-LTR1 (San Juan); 14-06-200-S082A (PCWA); 14-06-200-S198A (SMUD); 14-06-200-S198B (SCWA).) The City of Roseville and San Juan Water District divert these supplies directly through Folsom Reservoir's municipal intake. Roseville's 32,000-AFY CVP water-service contract is the city's primary water supply.

This history, the pre-1860 water rights that the City of Folsom and San Juan Water District hold, their CVP settlement contracts that do not allow dry-year reductions and explicit protection for the American River Division CVP water-service contractors that D-893 embedded in Folsom Reservoir's water-right permits require Reclamation to operate the reservoir to protect the American River region's ability to divert water through the reservoir's municipal intake. However, BDCP's hydrologic modeling -and therefore the DEIR/EIS's environmental analysis -is premised on an assumption that Reclamation would be allowed to operate the reservoir so that it would effectively drop below elevation 330' in at least 10% of years and, even more often, would decline to low levels that would impair diversions through the reservoir's municipal intake. The modeling results contained in section C of the DEIR/EIS's Appendix SA indicate that, in at least a 90% exceedance scenario, the reservoir's storage would be between 90,000 and 92,000 from August through October in the late long term-no action scenario. (DEIR/EIS, Appendix SA, p. SA-C94 (Table C-4-1).) This level would be the minimum level for diversion through the municipal intake. The modeling results for the Alternative 4/proposed action scenarios also indicate that Folsom Reservoir's storage would be reduced to extremely low levels at which the municipal intake would be dry or nearly dry for several months during a 90% exceedance scenario. (DEIR/EIS, Appendix SA, pp. 5A-C110 to SA-C113.) These results do not indicate how low the reservoir would drop in years drier than a 90% exceedance scenario, as this year has been.

These operational scenarios indicate that BDCP assumes that Reclamation would operate, and would be allowed to operate, Folsom Reservoir to eliminate deliveries through the

reservoir's municipal intake for at least three months in 10% of years. These scenarios further indicate that BDCP implicitly assumes that Reclamation would operate, and would be allowed to operate, the reservoir so that the approximately 500,000 people that currently rely on the reservoir as their primary water supply would be denied that water supply for those three months in 10% of years.

Moreover, because BDCP does not contain any explanation for how Delta flow obligations between the CVP and the State Water Project ("SWP") would be adjusted under the COA, it also is probable that actual Folsom Reservoir storage levels would be measurably different than as projected in the modeling results. COA currently imposes a greater burden for Delta conditions on the CVP, and NMFS has indicated that Reclamation should prefer releases from Folsom Reservoir to releases from Shasta Reservoir in dry conditions. The 2009 NMFS biological opinion on CVP and SWP operations provides that, in years when Shasta Reservoir end of September storage is less than 1.9 million AF (MAF) and operational changes become necessary to meet Delta environmental requirements, the CVP must first increase releases from Folsom Reservoir. (See 2009 NMFS Biological Opinion, pp. 595-596.) Similarly, in years when Shasta Reservoir storage cannot meet both water quality and carryover targets, then spring releases by Reclamation to meet Delta environmental requirements must first come from Folsom Reservoir. (*Id.* at p. 598.) Therefore, it is distinctly possible that the Alternative 4 proposed project modeling underestimates future demands on Folsom Reservoir to address Delta conditions. That modeling probably underestimates the risk to storage in that reservoir and the risk to communities that rely on the reservoir's municipal intake to provide their primary water supply.

Practical experience during this severe drought year indicates that the assumptions embedded in BDCP about how Reclamation would drain Folsom Reservoir to the point that deliveries from its municipal intake would be impossible are incorrect. Beginning in December 2013, Reclamation has sought to manage releases from Folsom Reservoir to at least keep the reservoir's municipal intake wet. In its temporary urgency orders concerning CVP/SWP operations this year, the SWRCB has relaxed Delta outflow standards for, among other reasons, the explicit purpose of allowing Reclamation to maintain more water in upstream reservoirs. (See, e.g., SWRCB, April 18, 2014 Order Modifying An Order That Approved A Temporary Urgency Change In License And Permit Terms And Conditions Requiring Compliance With Delta Water Quality Objectives In Response To Drought Conditions, *In the Matter of Specified License and Permits of the Department of Water Resources and U.S. Bureau of Reclamation for the State Water Project and Central Valley Project*, p. 9,4.) It is likely that the SWRCB and Reclamation would take similar actions in future dry years at 90% and higher exceedances in order to maintain the availability of municipal water supplies as long as possible. BDCP's modeling assumes that such adjustments would not occur with climate change and in dry years. BDCP's project description and environmental analysis are fundamentally flawed for these reasons.

2. **The BDCP improperly assumes that Reclamation would not comply with the City of Sacramento's settlement contract.**

The City of Sacramento relies on Folsom Reservoir for storage and release of American River water that provides a vital water supply for approximately 500,000 residents and other municipal uses in and around the City of Sacramento. Reclamation provides this use of Folsom Reservoir pursuant to an *Operating Contract Relating to Folsom and Nimbus Dams and their Related Works and to Diversion of Water by the City of Sacramento*, entered into by the City and Reclamation on June 28, 1957, Contract Number 14-06-200-6497 ("Sacramento Settlement Contract"). The Sacramento Settlement Contract is one of the predicates that enabled Reclamation to acquire the water rights necessary to operation of Folsom Reservoir.

The Sacramento Settlement Contract was negotiated and approved during the State Water Rights Board's proceeding that resulted in D-893. Along with Reclamation and others, as described above, the City of Sacramento was one of the applicants for American River water in that proceeding. The City filed applications in 1947 and 1954 for rights to divert American River water. Reclamation had its own applications for water for the CVP facilities at Folsom Reservoir. The Sacramento Settlement Contract resolved what the Reclamation Commissioner at the time described as a major operational problem created by the City's and Reclamation's competing claims on the American River. As stated by the Reclamation Commissioner in a June 21, 1957 memorandum recommending approval of the Sacramento Settlement Contract to the Secretary of the Interior:

Of primary concern to the United States is the accomplishment of maximum benefits from the operation of Folsom Reservoir. The basic interest of the City is the assurance of a reliable and permanent water supply from the American River to take care of its future requirements. These concepts are embodied in the proposed contract.

Also in 1957 (on the same date as the Sacramento Settlement Contract), SMUD assigned to the City of Sacramento SMUD's 1948 applications for consumptive water rights associated with SMUD's planned Upper American River power generation project ("UARP"). In 1958, in D-893, the State Water Rights Board issued four American River water-rights permits to the City of Sacramento, including two permits for the applications filed by SMUD in 1948 and assigned to the City. The State Water Rights Board recognized the importance of the Sacramento Settlement Contract to provide operational certainty that the water under these permits would be available for downstream rediversion by the City of Sacramento after its passage through Reclamation's Folsom and Nimbus facilities. (See D-893, at p. 50.)

Under the Sacramento Settlement Contract, the City of Sacramento agreed to certain rate and volumetric constraints on its diversions of water to which the City is entitled under its water rights, and in exchange, Reclamation agreed to operate both Shasta and Folsom Reservoirs, and their related works, so as to make this water available for diversion by the City. Specifically, Article 9 of the Sacramento Settlement Contract requires Reclamation to (1) make available

water from the American River for diversion by the City (up to the quantities specified in Schedule B of the Sacramento Settlement Contract), and (2) operate Shasta Dam and its related works so as not to interfere with the City's diversions on the Sacramento River. With regard to Folsom Reservoir operations, Article 9 goes on to state:

The United States will impound and store water in the reservoirs back of Folsom and Nimbus Dams or elsewhere and does hereby agree to discharge and release into the river channel below Nimbus Dam for the use of the City an amount of water which will ... aggregate a quantity of water as shown in Schedule B and will so operate Folsom and Nimbus Dams and their related works that water will be discharged and released into the river channel below Nimbus Dam for later downstream diversion by the City at its said American River diversion and filtration facilities at the times and in the quantities shown in Schedule B.

The City Settlement Contract is permanent (Article 23), and within the limits of available water supply, the City of Sacramento is not required to accept any pro-rata reduction in Reclamation's deliveries of American River water (Article 27).

The Sacramento Settlement Contract requires Reclamation to operate its Folsom Reservoir facilities as necessary to maintain the availability of water for diversion at the City of Sacramento's downstream facilities up to the maximum amounts specified in the contract. However, the BDCP modeling, and the attendant DEIR/EIS analysis, improperly assume that Reclamation will not operate in accordance with the Sacramento Settlement Contract, because this modeling shows Folsom Reservoir declining to "dead pool" levels (90 TAF storage) approximately one out of every ten years. Such operation of Folsom Reservoir would violate Reclamation's obligations under the Sacramento Settlement Contract. Therefore, the BDCP project description and modeling are flawed and the BDCP environmental analysis that relies on that description and modeling is inadequate.

3. **The BDCP's hydrologic modeling is technically flawed and is inadequate to support the DEIR/EIS's NEPA and CEQA conclusions.**

MBK Engineers has reviewed the BDCP's hydrologic analysis. As discussed in MBK's enclosed technical memorandum (Attachment A), the hydrologic modeling for Folsom Reservoir and the American River Basin contains pervasive errors that render the BDCP's analysis of the proposed project's environmental impacts inadequate. CEQA and NEPA require the DEIR/EIS to support its significance findings with evidence in the record. (See 5 U.S.C.A. § 706(2)(A); Public Resources Code § 21082.2.) Because the BDCP modeling does not adequately or accurately reflect the proposed project's environmental impacts, the DEIR/EIS's NEPA and CEQA conclusions regarding water supply are not supported by the BDCP documents.

As MBK's technical memorandum discusses, BDCP's modeling contains the following significant flaws:

- *Unreasonable projection of American River conditions under climate change.* BDCP assumes that climate change will significantly change inflow into Folsom Reservoir, but that Reclamation and other entities will not change how they operate Folsom Reservoir to adapt. The DEIR/EIS's modeling projects that, in the late-long term, in 10% of years, storage in Folsom Reservoir will be drained to "dead pool" conditions in which most water suppliers who divert water directly from Folsom Reservoir could not divert water through the existing municipal water-supply intake, the lower American River's fisheries would be severely impacted and the City of Sacramento would have serious difficulties diverting water from the Lower American River. These projections are highly improbable, and do not reflect the reasonably likely operation of Folsom Reservoir. As demonstrated by the response to the ongoing drought conditions in 2014, Reclamation, the SWRCB, and the fish and wildlife agencies are unlikely to ever permit Folsom Reservoir to be operated in such a manner. Frequent "dead pool" conditions would lead to catastrophic results for both hundreds of thousands of people who rely on Folsom Reservoir and for the aquatic species that rely on summer and fall cold water releases from the reservoir. The BDCP modeling compounds this flaw by ignoring that reservoirs upstream from Folsom are also likely to change their operations in response to climate change, modifying the rate and timing of inflow into Folsom Reservoir. Because BDCP's modeling fails to account for reasonable adaptations in the operation of Folsom Reservoir and other upstream reservoirs in future baseline conditions, the BDCP modeling does not represent the reasonably likely future operation of the CVP and SWP. The significant problems in that modeling ripple through numerous DEIR/EIS chapters that deal with many resource categories because the analysis in those chapters depends on hydrologic modeling.
- *Modeling of the BDCP proposed project scenario that is most likely to be permitted does not account for impacts on the CVP through the COA.* The BDCP documents identify the Alternative 4-H4 "high outflow scenario" as the project alternative most likely to be permitted. The BDCP modeling assumes the SWP would be responsible for the additional Delta outflows required by the high-outflow scenario, but does not then adjust CVP and SWP responsibilities for Delta outflow requirements as required by the COA for the CVP and SWP. The BDCP modeling fails to reflect increases in CVP reservoir releases that probably would be required by COA if demands on SWP supplies were increased as contemplated by the BDCP documents' description of the "high outflow scenario." This error means that the draft DEIR/EIS does not adequately account for the proposed project's impacts on Folsom Reservoir and the many resources in our region that rely on water from that reservoir.
- *BDCP obscures project impacts by only analyzing the project with climate change.* The Delta Reform Act of 2009 requires BDCP to consider the projected future impacts of climate change and sea level rise. (Water Code § 85320, subd. (b)(2)(C).) However, the

BDCP fails to analyze the proposed project's impacts without future climate change as a baseline to allow interested parties and the public to understand how the proposed project's impacts may vary under different climate change scenarios. Future climate change probably will not occur exactly as projected in the BDCP documents, even if these documents' projections represented the best available science, or even a median of it. The result of the BDCP documents' lack of a hydrologic analysis of the proposed project's impacts under existing and near term conditions is to obscure project impacts in the near term, as well as those that could occur in the reasonably likely scenario that climate change does not occur exactly as described in the single climate change scenario assumed in those documents.

- *The BDCP modeling contains errors that render modeling for the north Delta diversions inaccurate.* The version of CalSim II on which the BDCP modeling relies contains errors that artificially limit, in the modeling, the CVP's and SWP's use of the proposed north Delta diversion. According to MBK, DWR and Reclamation have fixed these errors in more recent versions of CalSim II, but the corrections are not reflected in the DEIR/EIS's modeling. The DEIR/EIS therefore significantly underestimates the water diverted at the proposed north Delta diversion and overestimates the water diverted from the south Delta diversion facilities. This error results in the DEIR/EIS's description of project impacts on various resource categories -including Delta flows -being inaccurate and inadequate.
- *Flawed assumptions about American River basin demands.* BDCP's modeling contains significant errors concerning late-long term (2060) water demands in the American River Basin. The modeling assumes demands for water from Placer County Water Agency's (PCWA) Middle Fork Project of 64,000 to 81,000 acre-feet per year where PCWA projects future demands by existing contractors at 120,000 acre-feet. The error is significant in relation to the City of Roseville, which projects needing 30,000 acre-feet per year of PCWA water by 2025, but is assumed in the BDCP modeling to only need 5,000 acre-feet per year of that water even by 2060. The modeling also makes the unlikely assumption that water demand in the Basin will increase rapidly between 2010 and 2025, but will then remain unchanged for the next 35 years. Finally, the modeling does not accurately account for how changing release patterns from Folsom Reservoir under the proposed project may affect the City of Sacramento's ability to divert water from the lower American River under the "Hodge Flow" limits contained in its water-right permits. The resulting impacts to the City and its retail and wholesale water users are not described or analyzed.

4. The BDCP improperly assumes that Reclamation could operate the CVP in a manner that would severely impact American River fisheries.

Cardno ENTRIX ("Cardno") has reviewed the BDCP's effects analysis for Central Valley steelhead and fall-run Chinook salmon. As discussed in Cardno's enclosed technical memorandum (Attachment B), the DEIR/EIS's effects analysis is flawed and fails to disclose

significant adverse impacts on covered species and their habitat in the lower American River. By failing to disclose the BDCP's significant impacts, the DEIR/EIS does not comply with NEPA and CEQA.

As discussed in Cardno's enclosed technical memorandum, water temperatures in the lower American River already exceed threshold tolerances for anadromous fish during critical life stages. Because these steelhead and fall-run salmon are already in stressful temperature conditions, small increases in water temperatures will cause significant adverse impacts to these species. The DEIR/EIS projects in the late-long term, water temperatures will regularly exceed threshold temperature criteria for anadromous fish. The DEIR/EIS applies a significance criteria of a < 5% increase in mean monthly water temperature to compare late long-term conditions with and without the plan. Applying this criteria, the BDCP concludes the plan will not cause significant adverse temperature impacts to covered species. However, this conclusion is improper and obscures actual conditions for covered species because increased water temperatures will jeopardize the continued existence of these species. The BDCP fails to disclose and mitigate these significant impacts.

The conclusions in the DEIR/EIS are invalid because they are based on modeling that is not representative of future conditions. Cardno's technical memorandum explains that under the BDCP, in the late long-term, entire year classes of steelhead are likely to be lost and large fish kills of pre-spawning fall-run salmon are likely to occur. However, the BDCP acknowledges the federal fish agencies are unlikely to allow Reclamation and DWR to operate the CVP and SWP in this manner. Accordingly, the BDCP fails to present a reasonable and accurate representation of future conditions.

5. The BDCP improperly fails to incorporate the Joint Federal Project at Folsom Reservoir in baseline conditions.

NEPA and CEQA require an environmental document to describe prevailing environmental conditions to define a baseline against which predicted effects will be described and quantified. (40 C.F.R. § 1502.15; Cal. Code Regs., tit. 14, § 15125, subd. (a); see *Neighbors for Smart Rail v. Metro Line Construction Authority* (2013) 57 Cal.4th 439, 447.) The document must employ a realistic baseline that gives the public and decision makers the most accurate picture practically possible, and it may incorporate reasonably expected changes that will take effect before the project would go into operation. (*Neighbors for Smart Rail, supra*, 57 Cal.4th at pp. 449, 452-453.)

Appendix 3D of the DEIR/EIS describes the BDCP's existing, no action alternative, and cumulative impact conditions. One condition affecting the water supply analysis under the no action alternative and cumulative impact conditions is the Folsom Dam Safety and Flood Damage Reduction Project (the "Joint Federal Project"), an ongoing project that Reclamation, U.S. Army Corps of Engineers, Sacramento Area Flood Control Agency, and Central Valley Flood Protection Board are jointly undertaking. Appendix 3D describes the Joint Federal Project:

The project includes the Joint Federal Project Auxiliary Spillway, seismic improvements to the Main Concrete Dam and Mormon Island Auxiliary Dam (MIAD), static improvements to earthen structures, security upgrades, replacement of the Main Concrete Dam spillway gates, and a 3.5-foot (ft.) raise to all Folsom Facility structures.

Construction on the auxiliary spillway began in 2008 and is expected to be completed in 2015. The modifications to the dam would allow for the release of water sooner than is now possible, with the potential for higher releases should the downstream levees be improved to accommodate the increased flows. These larger, earlier releases from Folsom Reservoir would create and conserve flood storage space based on projected reservoir inflows resulting from a major storm impacting the upper American River watershed.

However, the modifications would be operated using existing criteria until the completion of a revised Folsom Water Control manual and supporting supplemental environmental compliance documentation. The manual would be completed one year prior to completion of proposed structural modifications at Folsom Dam and Reservoir, at which time the full potential benefits of the proposed modifications would be realized.

(See DEIR\EIS, App. 3D, p. 99.)

The DEIR\EIS's discussion of the Joint Federal Project is vague, but it appears that, because the revised Folsom Water Control manual was not complete when the BDCP Notice of Preparation was filed in 2010, BDCP did not consider the Joint Federal Project's reasonably foreseeable changes to Folsom Reservoir operations.

Since 1999, however, federal law has required that, upon completion of the Joint Federal Project, the variable space allocated to flood control within Folsom Reservoir will be reduced by 70,000 acre-feet. (See Water Resources Development Act of 1999, Pub. L. No. 106-53 (Aug. 17, 1999) 113 Stat. 273, 274, § 101, subd. (a)(6)(B).) Given that the total water storage capacity in Folsom Reservoir is approximately 966,000 acre-feet, the 70,000 acre-feet that could be made available by the control manual update could affect the operation of the reservoir significantly. For example, that 70,000 acre-feet of additional carryover storage could be very significant in dry years such as this year, during which reservoir storage declined to approximately 162,000 acre-feet, which was only approximately 70,000 acre-feet above the minimum level at which the municipal water-supply intake in the reservoir would be operational. Given that BDCP's hydrologic modeling indicates that Folsom Reservoir may be drained to "dead pool" levels from which municipal and industrial direct deliveries through the municipal intake would not be possible in 10% of years in the future, the additional storage that the Joint Federal Project will make available will be extremely important. Because since 1999 federal law has required a reservoir operations manual update to account for the Joint Federal Project, that update is reasonably foreseeable. Given this, and that the BDCP documents use projected conditions in

2060 as the basis for their environmental analysis, omitting the Joint Federal Project and associated reservoir control manual update from the BDCP modeling and its cumulative effects analysis renders the BDCP documents inadequate to satisfy NEPA and CEQA.

6. The DEIRJEIS inappropriately fails to analyze groundwater impacts in this region.

The DEIRJEIS treats the entire Sacramento Valley as a single groundwater basin and conducts, at most, a perfunctory analysis of the impacts of the BDCP on that basin. This analysis, however, fails to consider several facts about groundwater conditions within the Sacramento metropolitan region that make this region unique within the Sacramento Valley and therefore subject to potential impacts from BDCP implementation that would be different from the rest of the Valley. The DEIRJEIS's failure to consider the American River region's specific circumstances and the specific impacts that BDCP could cause here makes the DEIR/EIS inadequate.

The DEIRJEIS states that there could be "minor decreases" in water supply availability to CVP water users in the Sacramento Valley service area as a result of BDCP's implementation. (See DEIR/EIS, p. 7-32.) This minor change is estimated at approximately 50,000 acre-feet per year, which constitutes approximately 2% of the current annual average groundwater production quantity in the Sacramento Valley. (*Ibid.*) The DEIR/EIS concludes that, because a "2% increase in groundwater use in the Sacramento Valley to make up for any shortfalls in surface water supply is not anticipated to substantially impact the groundwater resources as long as the additional pumping is not concentrated in a particular area of the valley," it did not include a groundwater analysis of the Sacramento Valley Groundwater Basin. (*Id.*, p. 7-32.) The DEIRJEIS's omission of any analysis of BDCP's impacts on the Sacramento metropolitan region's unique groundwater resources is improper, and the scant information that is provided contains several inaccuracies that result in a misleading and incomplete analysis of BDCP's impacts to groundwater resources. (DEIR/EIS, pp. 7-2, 7-12 to 7-15, 7-31 to 7-32.) Several grounds support this conclusion.

First, the DEIR/EIS does not recognize how this region is different from much of the rest of the Sacramento Valley. While much of the Sacramento Valley has long relied almost entirely on surface water sources, this region historically has relied extensively on groundwater, resulting in some drawdown of aquifers and increasing this region's sensitivity to reduced surface-water deliveries now. Groundwater in this region-specifically, the North and South American Sub-basins as defined in DWR's Bulletin 118 -historically has been overdrawn to serve intensive municipal and industrial uses that do not exist in other parts of the Sacramento Valley. Since at least the 1950s, groundwater extraction was concentrated in the central part of the North Area basin, which constitutes the southern one-third of the North American Sub-basin ("North Area Basin"). (Sacramento Groundwater Authority (SGA) Basin Management Report, at p. 4 (2013), *available at* <http://www.sgah2o.org/sga/files/pub-bmreport-2013.pdf>.) This has resulted in a cone of depression. (*Ibid.*) No such impacts to the groundwater basin have been observed, however, in the western part of the North Area Basin, which historically has relied almost exclusively on surface water for supply. (SGA Water Accounting Framework -Phase III Effort,

at p. 5 (2010), *available at* <http://www.sgah2o.org/sga/files/WAF-PhaseIII-Final-9-28-10.pdf>) A similar condition exists in the South American Sub-basin ("Central Area Basin") where a cone of depression has developed and is centered proximate to the City of Elk Grove. (Sacramento Central Groundwater Authority (SCGA) Basin Management Report, at pp. 14-16 (2010), *available at* <http://www.scgah2o.org/documents/2009-2010%20Basin%20Management%20Report%20v2.pdf>) In addition, there are significant contaminant plumes in this region's groundwater aquifers that could be mobilized by any significant increase in groundwater pumping. These plumes, which are present from source areas at the former McClellan Air Force Base, the former Mather Air Force Base, Aerojet, the Union Pacific Railroad site in the City of Sacramento, and a number of military and industrial sites located in north and central Sacramento County, are not present in other parts of the Valley. (See SGA Basin Management Report, p. 25 and SCGA Basin Management Report, p. 29.) The DEIR/EIS appears to assume that any impacts from a 2% increase in groundwater pumping will be felt uniformly throughout the Valley and can be avoided simply by ensuring that pumping "is not concentrated in a particular area." (DEIR/EIS, p. 7-32.) This is simply not the case given that this region is unique within the Sacramento Valley.

Second, the DEIR/EIS misstates the existing conditions in this region. The draft EIR/EIS states several times that northern Sacramento County shows "early signs of persistent drawdown." (DEIR/EIS, pp. 7-13, 7-31.) While this region's groundwater was drawn down historically, the DEIR/EIS's statement about current conditions is not accurate and has not been true for more than a decade. The SGA, a joint powers authority formed in 1998 to manage the Sacramento region's groundwater basin north of the American River, has observed that since the mid-1990s, groundwater levels have stabilized and, in some cases, have slightly increased. (SGA Basin Management Report, p. 18.) SGA's 2013 management report states that groundwater pumping from the North American Sub-Basin was lower than any year since 1983. (SGA Basin Management Report, at p. 11.) While some of the reduced demand can be attributed to wetter than normal hydrologic conditions, much of the improved conditions can be explained by increased intentional groundwater management, including expanded conjunctive use facilities and operations in the basin. (SGA Water Accounting Framework White Paper, p. 3 (2006), *available at* http://www.sgah2o.org/sga/files/WAF_White_Paper_final_6-31-06_reduced.pdf) Local agency actions aimed at managing contaminant plumes that migrated north of the American River also have contributed to the long-term sustainability of the groundwater basin. (See SGA White Paper, p. 4.)

While the draft EIR/EIS does not comment on groundwater conditions in central Sacramento County it should be noted that the Sacramento Central Groundwater Authority (SCGA), a joint powers authority formed in 2006 to manage the Sacramento region's groundwater basin between the American and Cosumnes rivers, has made similar observations of improved conditions related to hydrologic year type and expanded conjunctive use facilities and operations within their basin. Both local and regulatory agency actions aimed at managing contaminant plumes within the basin have also resulted in long-term sustainability of the groundwater basin. A number of municipal signatories to this letter rely on groundwater from the Central Basin. The DEIR/EIS does not, but needs to, address impacts on the Central Basin.

Third, the DEIR/EIS does not account for the importance of surface-water deliveries from Folsom Reservoir to this region and the consequent impacts on this region's groundwater if that reservoir were to be drained as frequently and as low as projected in the DEIR/EIS. The DEIR/EIS projects that Folsom Reservoir would be drained to a level too low to support municipal and industrial deliveries from the reservoir's water-supply intake. As discussed elsewhere in these comments, operating the reservoir in this manner would be illegal and inappropriate. Operating the reservoir in this way also would cause indirect impacts on this region's groundwater that the DEIR/EIS does not discuss. As discussed in SGA's 2013 management report, increased conjunctive use of surface water from the reservoir and from water released from the reservoir to the lower American River has enabled water agencies to reduce groundwater pumping and helped to stabilize the basin's groundwater. For example, Sacramento Suburban Water District has been able to reduce its prior 100% reliance on pumped groundwater by purchasing and using surface water diverted directly from Folsom Reservoir (under Placer County Water Agency's water rights and a Warren Act contract) and from the lower American River (under a contract with the City of Sacramento). Dramatic reductions in the amount of water stored in Folsom Reservoir would increase demands for, and use of, groundwater in this region. The DEIR/EIS fails to account for this fact in describing the no action alternative conditions and the conditions that would result from the implementation of action alternative. The DEIR/EIS's failure to analyze these issues is a glaring omission in that document's analysis, given its dramatic projection of Folsom Reservoir's future condition.

Fourth, the DEIR/EIS fails to account for the effects that reduced Folsom Reservoir storage and BDCP's implementation would have on this region's contaminant plumes. The presence of these plumes is an ongoing concern for both SGA and SCGA and its member water agencies whose service areas encompass the North Area Basin (SGA Basin Management Report, p. 1) and the South Area Basin (SCGA Basin Management Report, p. 4). As discussed above, the reductions in Folsom Reservoir storage projected in the DEIR/EIS probably would result in increased groundwater pumping in this region. That increased pumping could cause migration of this region's contaminant plumes. The DEIR/EIS, however, does not discuss this issue at all. The DEIR/EIS therefore is inadequate.

7. The DEIR/EIS inappropriately fails to analyze socioeconomic impacts in this region.

NEPA requires that an EIS address a project's socioeconomic effects. (40 C.F.R. §§ 1502.16; 1508.8; U.S. Bureau of Reclamation, Reclamation's NEPA Handbook (Feb. 2012) pp. 8-15, 8-17.) Similarly, CEQA requires that an EIR address a project's socioeconomic effects that generate environmental consequences. (CEQA Guidelines §§ 15064(e), 15131; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1204-1213.) The DEIR/EIS fails to properly analyze BDCP's socioeconomic impacts to this region.

As the NSWA letter points out, the DEIR/EIS is based on operations of Folsom Reservoir -specifically, it relies on hydrologic modeling that assumes Reclamation would, and would be authorized to, operate Folsom Reservoir so that it would be incapable of providing water

supplies to communities adjacent to the reservoir in approximately 10% of years. Yet the DEIR/EIS neither describes nor analyzes the socioeconomic effects of operating Folsom Reservoir in that manner. Any scenario in which the reservoir would be unable to provide the primary water supply for the 500,000 people who currently rely on reservoir water is likely to have significant socioeconomic impacts. The DEIR/EIS's socioeconomic analysis, however, is limited to the statutory Delta. (DEIR/EIS, pp. 16-1 to 16-29.) It contains no analysis of the socioeconomic effects within the Sacramento region of Folsom Reservoir operations that it assumes Reclamation would implement in implementing BDCP or of the indirect environmental impacts resulting from those socioeconomic effects. The DEIR/EIS therefore does not comply with NEPA or CEQA.

- B. The BDCP and DEIR/EIS contain numerous technical flaws that violate NEPA and CEQA and undermine the draft documents' usefulness.

The BDCP and DEIR/EIS suffer from numerous technical flaws. The most significant of these flaws is that the documents are so disorganized and confusing that they fail their fundamental purpose to inform the public and decision-makers about the proposed plan and its potential effects. These problems are compounded by an inadequate project description, impermissibly mixed levels of specificity, and flaws in the BDCP's environmental baseline and climate change analysis. Taken together, these technical flaws violate NEPA and CEQA and undermine the documents' usefulness.

- 1. The BDCP and DEIR/EIS are inadequate because they are so disorganized and confusing that they do not serve the fundamental function of informing the public and decision-makers.

NEPA requires that an EIS "provide full and fair discussion of significant environmental impacts and shall inform decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts" to the environment. (40 C.P.R. § 1502.1.) Thus, an EIS must be "concise, clear, and to the point." (40 C.P.R. § 1502.1.) Further, it "must be organized and written so as to be readily understandable by governmental decision-makers and by interested non-professional laypersons likely to be affected by actions taken under the EIS." (*Oregon Env'tl Council v. Kunzman* (9th Cir. 1987) 817 F.2d 484, 494.) Similarly, under CEQA, an EIR's function is "to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been taken into account." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449.) For the EIR to serve these goals, it must "be written in plain language ... so that decision-makers and the public can rapidly understand the documents." (Cal. Code Regs., tit. 14, § 15140.) Accordingly, the DEIR/EIS must convey the required information clearly and present it "in such a manner that the foreseeable impacts of pursuing a project can be understood and weighed." (*Vineyard Area Citizens for Responsible Growth, Inc., supra*, 40 Cal.4th at p. 449.)

The DEIR/EIS is legally inadequate as an informational document because it is poorly organized and very difficult to read, making it virtually incomprehensible to decision-makers and the public alike. It is at turns so general, and at others so technical, as to provide no meaningful information about many of the project's environmental impacts. The confusing nature of the document itself -its extreme length, numerous cross-references, and contradictory statements -prevents the meaningful evaluation of BDCP's environmental consequences. The same is true for the BDCP itself. It suffers from these same deficiencies and, as such, is rendered unsuitable for the public review and comment process required by ESA and the NCCPA. (See 16 U.S.C. § 1539(a)(2)(B); Fish & Game Code § 2815.)

A few examples illustrate this point. The documents' discussion of the crucial "decision tree" process is perhaps the best example. The proposed project is Alternative 4. Alternative 4 is analyzed as potentially operating under four different "Scenario H" Delta-outflow scenarios, one of which would be chosen - after the proposed diversion facilities are built -through a "decision tree" process. However, the DEIRJEIS states that, "Scenario H could be implemented with any other project alternative in order to create a hybrid alternative within the bookends created by the entire range of alternatives addressed in the EIRJEIS." (DEIRJEIS, p. 3-202.) Accordingly, there apparently are at least 36 different possible project alternatives "within the bookends," even though the environmental impacts of only Alternative 4 are actually analyzed in combination with the four different Scenario H possibilities. Stating that the ultimate project could be within the "entire range of alternatives" is an admission that the DEIRJEIS and BDCP documents do not adequately identify, or analyze the environmental impacts of, what may actually be permitted and built. This is a fatal deficiency of the project description.

Similarly, it is nearly impossible to understand the DEIRIEIS's analysis of the proposed-project Alternative 4's impact on fish-including listed salmonids that are among the species to be benefitted by BDCP - because that discussion is so filled with, and dependent on, cross-references to the DEIRJEIS's fisheries analysis for Alternative 1A. Alternative 1A reflects a much larger north Delta diversion than Alternative 4. (DEIRJEIS, § 11.3.4.9.) The documents fail to distinguish between the impacts of markedly different sizes of the project.

In addition, there are numerous conflicting statements in BDCP and the DEIRJEIS. The DEIRIEIS's purpose statement provides, "[i]t is not intended to imply that increased quantities of water will be delivered under the BDCP." (DEIS/EIR, p. 2-5.) However, the BDCP itself states that "[t]he BDCP is intended to minimize entrainment levels, while also increasing water supply" (BDCP, p. 5.B-2.) The BDCP documents also contain numerous contradictory statements concerning the operation of the proposed fish screen intakes, criteria for the new north Delta intakes, and purported impacts to salmonids. This is highlighted in the technical memorandum by fisheries expert Dave Vogel, which is attached to the NSW comment letter.

The BDCP documents are sufficiently confusing that, whatever the technical information contained in them, they do not meet the fundamental requirement of informing the public of what is being proposed and what impacts the proposal may cause.

2. The BDCP's and the DEIR/EIS's project descriptions are vague and uncertain.

As discussed in the NSWA comment letter, the BDCP's and the DEIR/EIS's project description are vague and uncertain, and therefore do not satisfy the ESA, the NCCPA, NEPA and CEQA. These statutes necessarily require that a project contain well-defined and specific actions, the analysis of which will inform the public of what is proposed and the projected environmental effects of implementing the project. The BDCP's and the DEIR/EIS's project descriptions fail to satisfy these requirements because they contain numerous uncertainties, vague descriptions, and analytical gaps. Therefore, the BDCP and DEIR/EIS must be revised and recirculated for public review before any decisions may be made concerning permitting and implementation of BDCP.

3. The DEIR/EIS illegally mixes project-level and program-level analyses.

The DEIR/EIS takes a programmatic approach toward evaluating all of BDCP's proposed conservation measures except for Conservation Measure 1 -the proposed tunnels -for which it takes a project-level approach. (DEIR/EIS, p. ES-3.) The DEIR/EIS notes that, because specific design information for the restoration and preservation actions within the conservation zones has not been identified, and because design information for the restoration and conservation strategies for aquatic and terrestrial habitat and other stressor reduction measures in Conservation Measures 2 through 22 are still at a "conceptual level," the analyses for the implementation of those conservation measures are presented at a program level. (DEIR/EIS, p. 4-2.) In contrast, because more specific design information on the water conveyance facilities is available, the elements of Conservation Measure 1 are analyzed at a project level. (DEIR/EIS, p. 4-2.) The DEIR/EIS states that its goal is to "meet the requirements of CEQA and NEPA, provide sufficient analysis to support BDCP decision making, and to inform permit decisions for the issuance of the ITPs/NCCP permit." (DEIR/EIS, p. ES-3.) For those conservation measures presented and analyzed at a program level, the DEIR/EIS recognizes that "more detailed, site-specific analysis and site-specific environmental documents will be prepared later, prior to implementation of specific projects, as the BDCP is implemented over time, as appropriate." (DEIR/EIS, p. 3-2.)

This approach is inadequate for two reasons. First, the lack of information and insufficient analysis provided for Conservation Measures 2 through 22, even at the program level, prevents the meaningful evaluation of their environmental impacts and improperly defers the required analysis of such impacts to the future. Second, as a result of combining programmatic and project-level alternative definitions and analyses, neither is sufficiently complete or accurate to comply with the requirements of CEQA and NEPA and to support the requested take coverage pursuant to the ESA and NCCPA. Permitting and implementation of Conservation Measure 1 is dependent on the other conservation measures under the ESA and the NCCPA, so it is inappropriate to leave the analysis of those other measures at a much vaguer level while essentially assuming that Conservation Measure 1 will proceed as designed.

Under CEQA, a programmatic EIR is helpful if it deals with the effects of the program "as specifically and comprehensively as possible." (Cal. Code Regs., tit. 14, § 15168, subd. (c)(5).) A "good and detailed analysis of the program" must be provided. (*Id.*) Similarly, NEPA requires that an EIS for a programmatic plan provide "sufficient detail to foster informed decision-making." (*Pacific Rivers Council v. US. Forest Service* (9th Cir. 2012) 668 F.3d 609, 622-623.) That is, regardless of whether a programmatic or site-specific plan is at issue, NEPA requires that an EIS analyze the environmental consequences of a proposed plan as soon as it is "reasonably possible" to do so. (*Kern v. U.S. Bureau of Land Management* (9th Cir. 2002) 284 F.3d 1062, 1071-1073.) Agencies "may not avoid the obligation to analyze in an EIS environmental consequences that foreseeably arise ... merely by saying that the consequences are unclear or will be analyzed later when an environmental assessment is prepared for a site-specific program" (*Kern, supra*, 284 F.3d at p. 1072.)

As discussed in the NSWA comment letter, there is significant uncertainty associated with many of the BDCP's proposed conservation measures. Numerous conservation measures are either ill-defined (and are qualified by statements noting that further environmental analysis will be refined in subsequent environmental documents) or contain too many uncertainties. (See, e.g., BDCP, pp. 3.4-48 (Conservation Measure 2); 3.4-147 (Conservation Measure 5); 3.4-196 (Conservation Measure 6); 3.4-294 (Conservation Measure 15); 3.4-315 (Conservation Measure 16).) An environmental document, however, cannot defer the analysis of one of its elements to a pending environmental document that will be completed in the future. (*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 440-441.) While program-level analysis is possible under NEPA and CEQA, as the above authority makes clear, a NEPA/CEQA document must present a detailed analysis of a project as a whole. The BDCP documents fail this test because their combination of project-level analysis for Conservation Measure 1 and program-level analysis of everything else prevents interested parties from understanding how the project as a whole would function and impact relevant resources. For example, it is not possible to understand how salmonids migrating from the Sacramento Valley would be impacted by the project as a whole where the new north Delta intakes are well-defined, but the Yolo Bypass-based Conservation Measure 2 that could affect these fish is defined at the program level at most. It is not possible to integrate the analysis of even those two Conservation Measures, much less the other 20 Conservation Measures as well. The unequal treatment of Conservation Measure 1 and the other conservation measures is inappropriate because it prevents decision makers and the public from fully evaluating the project as a whole.

Conservation Measure 1 is essentially the infrastructure project desired by the project proponents. Its characterization as a "conservation measure" is questionable. Regardless, it is analyzed at a project level and all of the mitigation (or conservation) measures are analyzed at a program level. This uneven treatment makes the infrastructure project (CM 1) far more well defined and certain; and the mitigation necessary for it to satisfy legal requirements ill-defined and uncertain. This approach is insufficient under NEPA and CEQA.

Our agencies agree with prior comments by federal agencies regarding a related shortcoming due to the variation in level of environmental analysis. As the federal agencies

(Reclamation, USFWS and NMFS) pointed out in their comments on the BDCP Second Administrative Draft EIR/EIS dated July 18, 2013 ("Federal Agency Letter"), BDCP's approach to analyzing one alternative at a project level and the rest of the alternatives at a programmatic level makes it more difficult to assess whether either type of analysis "was provided completely or correctly." (See Federal Agency Letter, p. 47, *available at* <http://baydeltaconservationplan.com/Library/Correspondence.aspx>.)

4. The DEIR/EIS's handling of existing conditions and use of late long-term conditions as an analytical baseline violates CEQA.

The DEIR/EIS relies entirely on 2060 "late long term" conditions to identify the impacts of the proposed project for, among other resource categories, aquatic species and water supplies. The DEIR/EIS does not discuss the simulated operations of the twin tunnels and north Delta diversions in 2010 (the year the notice of preparation was issued) and does not analyze the impact of these simulated operations on existing conditions. (See DEIR/EIS, p. 5-47.) Instead, the DEIR/EIS uses an existing conditions baseline only in comparison to the no action alternative and project alternatives, all of which occur in the late-long term (around 2060) and include the simulated effects of sea level rise and climate change. Comparing a 2010 existing conditions baseline without project with the simulated 2060 scenarios with and without the project is an "apples to oranges" comparison that fails to properly inform the public about the proposed project's impacts. The effects of 50 years' worth of sea level rise and climate change make it impossible for the reader to determine which significant effects are related to the proposed project. The BDCP acknowledges this flaw and states that comparing existing conditions with the late-long term scenarios is unhelpful and obscures project-related impacts. (See DEIR/EIS, p. 5-47.)

The limitation of project environmental analysis to one climate change scenario and one future timeframe increases the likelihood that the impacts of an indisputably major project are masked in a manner prohibited by *Neighbors for Smart Rail, supra*, 57 Cal.4th, at p. 456. Rather than analyze the proposed project's impacts under existing conditions, the DEIR/EIS chooses one possible climate change scenario and uses that scenario for its environmental analysis. In *Neighbors for Smart Rail*, however, the majority of the California Supreme Court expressly disapproved of such an approach to omitting all analysis of project impacts on existing conditions. The majority rejected the dissent's proposal for allowing future-condition baselines in broader circumstances:

Justice Baxter's concurring and dissenting opinion proposes a significantly more lax rule ... under which a future conditions baseline may be employed, in lieu of one based on existing environmental conditions, so long as it is "a realistic measure of the physical conditions without the proposed project" projected at the agency's chosen future date .. [This approach] would sanction the unwarranted omission of information on years or decades of a project's environmental impacts and open the door to gamesmanship in the choice of baselines.

Under the rule proposed in Justice Baxter's opinion, agencies evaluating projects intended to exist and operate for many decades could seemingly choose a baseline of conditions from *any* period of the project's expected operations, 15, 30 or 60 years in the future, so long as the agency's projections were supported by reasonably reliable data and predictive modeling.

(*Neighbors for Smart Rail, supra*, 57 Cal.4th at p. 456 (emphasis in original).)

Similarly, the DEIR/EIS violates *Neighbors for Smart Rail* by failing to properly analyze the project's impacts on existing conditions in favor of relying solely on one future, with-climate change scenario. The DEIR/EIS selects 2060 as an allegedly appropriate date to evaluate the BDCP's impacts and bases its analysis on "predictive modeling" of what conditions will exist at that time.

Under *Neighbors for Smart Rail*, there can be no adequate basis for the DEIR/EIS's use of such an approach because an environmental analysis of the proposed project's impacts in the existing conditions would be very helpful for the understanding of decision makers and the public. Two examples prove this point.

First, using an existing conditions baseline would help all parties understand better what water-supply impacts would occur as CVP and SWP operations are modified to enable diversions through the proposed tunnels. As discussed in the enclosed technical memorandum by MBK Engineers, BDCP's hydrologic modeling appears to assume that Reclamation's patterns of releases from Folsom Reservoir would change by increasing in the summer, and decreasing in the fall, in order to move water through the proposed tunnels.¹ As described by MBK, this altered pattern in turn would alter seasonal patterns of storage in the reservoir. Under the with-climate change baseline, however, the effects of these altered patterns are muted or masked by the overarching effect of climate change, which the DEIR/EIS projects will severely reduce Folsom Reservoir storage in drier years. This does not provide the information and analysis needed for our agencies and others to understand what effect the revised Folsom Reservoir release patterns necessary to implement BDCP would have under existing conditions.

Second, using an existing-condition baseline would assist our agencies and others in understanding what impacts operations under BDCP would have on fish in the lower American River. As discussed in the enclosed technical memorandum by Cardno (Attachment B), the with-climate change baseline conditions projected by BDCP would have severe impacts on salmonids in the river, including steelhead listed under the federal ESA and fall-run Chinook salmon. As described by Cardno, it is unlikely that Reclamation would be allowed to operate the CVP in such a manner. Consistent with the concern of the California Supreme Court in

¹ As elsewhere noted, this operational change to allow the project's main feature to function is not accompanied by any recognition of other operational changes that would necessarily follow given the addition of this project, and also climate change, to the picture. The absence of a realistic reasonably foreseeable operating plan or scenario for the SWP, CVP and related facilities is a significant omission from the DEIR/EIS.

Neighbors for Smart Rail that using a future baseline might cause "changes in background conditions" to "mask or swamp" project impacts (57 Cal.4th at p. 456), it is impossible to tell from the DEIR/EIS's fisheries analysis whether the proposed project and the changes in Folsom Reservoir operations that it apparently incorporates would cause any impacts to sensitive American River fish in addition to those projected as a result of climate change. An analysis based on existing and near-term conditions is necessary to allow our agencies and others to understand the proposed project's possible impacts on those fish.

Because the DEIR/EIS does not properly analyze the proposed project's impacts on existing conditions, and existing evidence demonstrates that such an analysis is necessary for all parties to understand the proposed project's impacts, the DEIR/EIS is inadequate and violates CEQA.

5. The DEIR/EIS violates CEQA by failing to properly analyze the proposed project's short- and medium-term impacts.

While the proposed tunnels would begin operating in 10 years, the DEIR/EIS only analyzes project water-supply impacts in the late-long term with projected 2060 hydrology, leaving 35 years of project water-supply impacts unanalyzed. CEQA requires that the BDCP give due consideration to short- and medium-term impacts, and the DEIR/EIS provides no justification for failing to analyze project water-supply impacts prior to 2060. As a result, the DEIR/EIS is inadequate under CEQA.

The BDCP preparers conducted CalSim II model runs for project impacts on hydrology in the near-term and early-long term (see DEIR/EIS, App. SA, p. 4), but the DEIR/EIS's environmental analysis has no analysis of project impacts in the near-term or early-long term. Most tellingly, the BDCP modeling technical appendix -the core hydrologic analysis that is the basis for environmental analysis of project impacts on many resource categories, including water supply and aquatic life -does not include the results of CalSim II model runs for the near-term and early-long term. (See DEIR/EIS, App. 5C.) The DEIR/EIS provides no justification for these omissions.

Analysis of project impacts in the early-long term is necessary to inform the public about the project's immediate impacts on water supply and aquatic life when the proposed tunnels are complete. As the draft EIR acknowledges, analysis of impacts in the late-long term with sea level rise and climate change is subject to error and the DEIR/EIS's analysis does not segregate project-related impacts. The draft EIR acknowledges that the document's hydrologic analysis may ultimately be inaccurate because predictions for climate change in 2060 are "inherently limited and reflect large degrees of speculation." (See DEIR/EIS, p. 5-49.) This is also a flaw of the one climate change scenario approach. The DEIR/EIS also acknowledges that project-related effects cannot be isolated from climate-change related effects in 2060 for CEQA analysis against existing conditions. (DEIR/EIS, p. 5-49.)

The DEIR/EIS's failure to analyze interim impacts causes that document to be inadequate under CEQA. In *Neighbors for Smart Rail*, the California Supreme Court held that CEQA

requires an environmental document to give due consideration to short- and medium-term impacts in addition to long-term impacts:

Even when a project is intended and expected to improve conditions in the long term - 20 or 30 years after an EIR is prepared - decision makers and members of the public are entitled under CEQA to know the short- and medium-term environmental costs of achieving that desirable improvement. These costs include not only the impacts involved in constructing the project but also those the project will create during its initial years of operation. Though we might rationally choose to endure short- or medium-term hardship for a long-term, permanent benefit, deciding to make that tradeoff requires some knowledge about the severity and duration of the near-term hardship. An EIR stating that in 20 or 30 years the project will improve the environment, but neglecting, without justification, to provide any evaluation of the project's impacts in the meantime, does not "giv[e] due consideration to both the short-term and long-term effects" of the project (Cal. Code Regs., tit. 14, § 15126.2, subd. (a)) and does not serve CEQA's informational purpose well.

(Neighbors for Smart Rail, 57 Cal.4th at p. 455 (emphasis added).)

Because the BDCP only analyzes impacts of the tunnels' operation in the 2060 timeframe and fails to analyze the previous 35 years of project impacts, DEIR/EIS fails to give due consideration to short- and medium-term impacts and therefore violates CEQA, as interpreted by *Neighbors for Smart Rail*.

6. The BDCP's climate change analysis does not adequately inform the public of the project's potential impacts.

The BDCP's climate change analysis uses an ensemble projection scenario that represents the median prediction of over one hundred aggregated climate change studies. This single scenario approach to predicting climate change is inadequate for several reasons.

As discussed above, this approach is identical to the approach proposed by the dissent in *Neighbors for Smart Rail* and rejected by the majority of the California Supreme Court. (*Neighbors for Smart Rail, supra*, 57 Cal.4th at p. 456.) The DEIR/EIS's use of this approach therefore violates CEQA.

In addition, the DEIR/EIS's use of a single, median climate change scenario does not adequately inform the public. As the document acknowledges, climate change predictions are highly uncertain, and the long-term effects of climate change on sea level rise, water availability, and water temperatures are unknown. It will not be possible to know for decades whether BDCP has significantly underestimated or overestimated the potential effects of climate change. (DEIR/EIS, p. 5-49.) Yet the BDCP presents the significant effects of climate change in the late-long term as reasonably certain and predictable by presenting the single, median climate change scenario. Facing similar uncertainty, other environmental studies, including the 2008 USBR

OCAP analysis and the 2009 DWR California Water Plan Update, have adopted a bracketed analysis that analyzes two or more scenarios representing the range of likely climate change scenarios. This analysis provides "bookends" for the uncertain effects of climate change, and it is more effective for informing the public about the potential impacts of BDCP. Bracketed predictions also better captures potential extreme effects, which can be more biologically significant for covered species, than median scenarios. As explained in the technical memorandum by Cardno (Attachment B), increasing water temperatures have already stressed steelhead and fall-run Chinook salmon in the lower American River. If the BDCP's water temperature analysis for late-long term conditions has underestimated warming by a few degrees, there will be devastating consequences for these covered species. Without analyzing a wider range of potential climate change outcomes and accounting for potential extreme temperature changes, the BDCP is inadequate.

The BDCP's median climate change scenario also is an inappropriate basis for the BDCP permittees to receive regulatory and economic assurances under the ESA and the NCCPA. The BDCP permittees will seek assurances under the "No Surprises" rule, which would prevent the fish and wildlife agencies from seeking additional regulatory and economic measures from the permittees if changed or unforeseen circumstances occur. The BDCP states that if climate change occurs other than as predicted by BDCP, then this will constitute a changed circumstance. (BDCP, p. 6-43 to 6-44.) However, even if the BDCP's climate change predictions are completely wrong, the BDCP states that BDCP permittees would still receive the benefits of the regulatory and economic assurances:

Long-term changes in sea level, watershed, hydrology, precipitation, or temperature (air or water) that are of the magnitude or effect assumed for the effects analysis and that adversely affect conservation strategy implementation or covered species are considered a changed circumstances. [...] Because the BDCP already anticipates the effects of climate change, no additional actions will be required to remediate climate change effects on covered species and natural communities in the reserve system.

(BDCP, p. 6-43 (underlining added).)

The BDCP also states that any climate change scenario requiring conservation measures in response to climate change beyond those described in BDCP are unforeseen circumstances and would require no remedial actions. (BDCP, p. 6-44 - 6-45.) The effect of these provisions would shift the inherently uncertain risks of planning for climate change away from the BDCP permittees and onto the federal government, other public agencies, and private landowners. Even the DEIR/EIS, however, acknowledges that its predictions for climate change in 2060 are "inherently limited and reflect large degrees of speculation." (See DEIR/EIS, p. 5-49.) The DEIR/EIS needs to sufficiently identify the project impacts, including if that should be done within a range given the uncertainties, so that appropriate mitigation can be crafted in accordance with CEQA and NEPA. Leaving all other parties subject to potentially increased regulatory and economic burdens if climate change ultimately results in different conditions than those assumed

by BDCP's admittedly speculative single projection would violate NEPA and CEQA, be highly inequitable and would violate, among other laws, the area-of-origin laws that so that the protected areas "shall not be deprived ...directly or indirectly of the prior right to all of the water reasonably required to adequately supply the beneficial needs of the watershed, area, or any of the inhabitants or property owners therein." (Water Code § 11460; see also Water Code § 11128 (§ 11460 applies to the CVP).)

7. The BDCP's use of only one climate-change scenario, and the DEIR/EIS imprecise comparison of that scenario to existing conditions, is inappropriate and illegal.

Under CEQA, existing conditions will normally constitute the baseline physical conditions by which an EIR analyzes whether an impact is significant. (Cal. Code Regs., tit. 14, § 15125, subd. (a); *Neighbors for Smart Rail*, *supra*, 57 Cal.4th at 445.) To properly conduct this analysis, the standard practice is for the EIR to assume, counterfactually, that the project exists and is in full operation when the environmental analysis is conducted. (*Neighbors for Smart Rail*, 57 Cal.4th at p. 453; see Cal. Code Regs., tit. 14, § 15125, subd. (a).) The EIR will then analyze this "existing conditions with project" scenario against an existing conditions baseline to predict the project's impacts. (*Neighbors for Smart Rail*, *supra*, 57 Cal.4th, at p. 453.) In this case, since the notice of preparation was issued in 2010, the EIR's primary mode of analysis should assume that the project is existing and operational in 2010, and the EIR must analyze this hypothetical 2010 project against existing conditions. The resulting analysis is an "apples to apples" comparison that predicts project impacts by comparing the hypothetically operating project with existing conditions. For these reasons, the California Supreme Court held in *Neighbors for Smart Rail* that an analysis of the project's impact on an existing conditions baseline generally is required and cannot be omitted from an EIR except under unusual circumstances (57 Cal.4th at pp. 451-452, 456):

Projected future conditions may be used as the sole baseline for impacts if their use in place of measured existing condition—a departure from the norm stated in Guidelines section 15125(a)—is justified by unusual aspects of the project or the surrounding conditions. That the future conditions analysis would be informative is insufficient, but an agency does have discretion to completely omit an analysis of impacts on existing conditions when inclusion of such an analysis would detract from an EIR's effectiveness as an informational document, either because an analysis based on existing conditions would be uninformative or because it would be misleading to decision makers and the public ... [A]n agency must not create unwarranted barriers to public understanding of the EIR by unnecessarily substituting a baseline of projected future conditions for one based on actual existing conditions.

The DEIR/EIS's reliance on projected future, with-climate change 2060 scenarios in identifying the project's environmental impacts violates CEQA. The unusual circumstances under which an existing conditions baseline can be omitted from an EIR do not exist here because the analysis would be informative and would not mislead the public or decision makers.

The comparison of 2060 scenarios with the existing conditions baseline without project is not particularly informative, given what DEIR/EIS admits is the wide range of possible climate outcomes. Superimposing the proposed project on existing conditions would assist the public and decision makers in understanding the proposed plan's impacts, and enable them to distinguish project impacts from climate change.

C. **Elements of the BDCP are poorly conceived and would violate the ESA and NCCPA.**

Because of numerous technical and structural errors, the BDCP and DEIR/EIS are inadequate. The plan's funding, regulatory assurances, and draft implementation agreement do not meet the requirements imposed by state and federal law for conservation plans. Furthermore, significant issues render the plan's proposed governance structure inadequate. For the reasons discussed below, BDCP must be significantly revised before any decisions can be made regarding permitting and implementation of the plan.

1. **The BDCP's proposed funding is inadequate under the ESA and NCCPA.**

The ESA requires that proponents of a habitat conservation plan "ensure that adequate funding for the plan will be provided" and that adequate funding be available to implement the mitigation measures contained in the HCP. (16 U.S.C. §§ 1539(a)(2)(A), (a)(2)(B); see also *Southwest Center for Biological Diversity v. Bartel* (S.D. Cal. 2006) 457 F.Supp.2d 1070, 1105 (noting USFWS cannot issue an incidental take permit unless it finds that the applicant demonstrates sufficient funding will be available to implement the HCP).) Similarly, the NCCPA requires that a natural community conservation plan "contain provisions that ensure adequate funding to carry out the conservation actions identified in the plan." (Fish & Game Code § 2820, subd. (a)(10).) Large-scale, regional HCPs/NCCPs such as BDCP therefore must demonstrate sufficient funding for long-term needs and, where perpetual funding is required to implement any of the proposed mitigation measures, the HCP must establish programs or mechanisms to generate those funds. (See USFWS and NMFS Habitat Conservation Planning and Incidental Take Processing Handbook (1996), p. 3-34.) HCP/NCCP proponents cannot rely on the speculative future actions of others. (*Southwest Center for Biological Diversity, supra*, 457 F.Supp.2d at p. 1105 (citing *National Wildlife Federation v. Babbitt* (E.D. Cal. 2000) 128 F.Supp.2d 1274; 1294-1295 and *Sierra Club v. Babbitt* (S.D. Ala. 1998) 15 F.Supp.2d 1274, 1280-82).) The lack of adequate funding in an HCP can be fatal to the validity of the plan. (See, e.g., *National Wildlife Federation, supra*, 128 F.Supp.2d at pp. 1293-1295 (HCP invalidated in part due to inadequate funding guarantees from city); *Southwest Center for Biological Diversity, supra*, 457 F.Supp.2d at pp. 1105-1106 (reliance on undependable and speculative funding sources violates ESA's funding requirement).)

The BDCP fails to satisfy the funding requirements of the ESA and the NCCPA because nearly all of the funding sources it identifies are too speculative and, to the extent that a particular funding source is identified in the plan, there are no guarantees in the BDCP that such funding will be adequate to implement the proposed conservation measures. Our agencies agree

with the comprehensive comments submitted by the NSWA on this issue and incorporate those comments here.

The NSWA letter points out that BDCP appears to anticipate that it will "comer the market" with respect to existing bond funds · i.e., using all available state bond funding for the BDCP -but does not discuss what other projects throughout the State will not receive funding as a consequence. It is speculative to conclude that all remaining bond funds under the various programs cited in the BDCP (see BDCP, pp. 8-86-8-94) will be made available only to BDCP. For example, it notes that \$378.7 million dollars of Proposition IE funding for flood protection and habitat restoration in the Delta under the Disaster Preparedness and Flood Protection Bond Act of 2006 remains available as of November 2012. (BDCP, p. 8-87.) Of this amount, BDCP expects to receive up to \$94.7 million dollars, which represents 25 percent of Proposition IE funding still available for allocation. Yet BDCP does not explain its basis for claiming such a significant portion of these funds. To the contrary, all it does is state that Conservation Measures 2, 4, 5, 6, 7, 8, 9, 10 and 12 "may be eligible" for these funds. (BDCP, p. 8-87.) Eligibility for funding is in no way sufficient to guarantee that such funding will in fact materialize.

In addition, BDCP assumes that a significant portion of Proposition 84 funding presently targeted to support Integrated Regional Water Management (IRWM) plans will be repurposed to fund BDCP. (BDCP, p. 8-89.) Specifically, BDCP assumes that it will receive anywhere from \$40 to \$80 million dollars of the remaining funds allocated to the San Francisco Bay Area (\$21 million dollars), the Sacramento River (\$12 million dollars) and the San Joaquin River (\$10 million) to implement proposed Conservation Measures 2 through 10 and Conservation Measure 12. (*Id.*, at p. 8-89.) The process for obtaining IRWM funds is highly competitive, with many government entities vying for the same limited funds. It is unreasonable for BDCP to assume that it will receive this funding at the expense of numerous other eligible projects in those regions. The fact that BDCP may qualify for some of these funds does not necessarily mean that it will receive these funds.

One of BDCP's biggest flaws is that it contains no assurances that there will be adequate funding to implement the conservation measures that are the cornerstone of the regulatory coverage under the ESA and NCCPA that BDCP's proponents seek to acquire very soon. The BDCP improperly defers its discussion of its funding plan to some undefined future date, stating that "financing plans will be prepared separately by various funding agencies and through future discussions between state and federal agencies." (BDCP, p. 8-2.) As the NSWA comment letter points out, without an understanding of who will pay and what funding is required, there is no way of evaluating whether adequate funding exists sufficient to provide regulatory assurances to BDCP proponents. To the contrary, what assured funding there is from participating state and federal contractors only makes up a small portion of BDCP's overall costs, as they have committed only to funding construction, operation and construction-related mitigation costs for the conveyance tunnels and not to funding the administration of BDCP or the implementation of conservation measures generally. (See BDCP, p. 8-73.) All other funding sources, as discussed above and in the NSWA comment letter, are either too uncertain or speculative to be relied upon.

2. **The BDCP's proposed governance structure is confusing and causes the draft documents to inadequately describe possible impacts to other water users.**

BDCP proposes a complicated governance structure that, among other things: (1) may subject other water users to BDCP's requirements and risks created by BDCP; (2) depends on undefined participation by Reclamation; and (3) leaves CVP contractors other than BDCP proponents open to undefined risks. ARWA agrees with the detailed comments submitted by the NSWA on this issue and incorporate those comments here.

As the NSWA letter points out, the proposed implementation structure described in BDCP's Chapter 7 is inadequate under the NCCPA, the ESA, NEPA and CEQA because it fails to clearly define how Reclamation and, by extension, Reclamation's non-BDCP CVP contractors - would be affected by the decisions made within the BDCP. The uncertainties inherent in the proposed structure, which includes inconsistent statements concerning which particular entities would make decisions within the BDCP and prepare annual operations plans, and the lack of information contained in the BDCP concerning how project-specific actions relative to how operation of the proposed conveyance tunnels will be disentangled from the larger CVP and SWP operations that serve water users that are not BDCP proponents, render BDCP legally inadequate.

3. **Regulatory and economic certainty under the "No Surprises" rule is incompatible with the BDCP's vague project description and uncertain conservation measures.**

The BDCP and draft implementing agreement state the BDCP proponents, except for Reclamation, would receive regulatory and economic assurances under the ESA and NCCPA. These assurances would provide that if changed or unforeseen circumstances occur that adversely affect species covered by the BDCP, the fish and wildlife agencies could not impose additional regulatory restrictions or economic burdens on the BDCP proponents. Primary responsibility for undertaking additional conservation measures would rest with the federal government, other governmental agencies, or other nonfederal landowners. (See BDCP, p. 6-28.) The BDCP and draft implementing agreement do not meet the requirements for regulatory and economic assurances under ESA and NCCPA.

The regulatory and economic certainty provided by the "No Surprises" rule is incompatible with the BDCP's vague project description and uncertain conservation measures. BDCP states that the purpose of the "No Surprises" rule is similar under the ESA and NCCPA to provide a degree of certainty regarding the conservation measures and economic commitment that the BDCP proponents will be required to undertake by limiting the proponents' exposure to additional regulatory and economic requirements. (BDCP, p. 6-28.) The "No Surprises" rule therefore presumes that the permittees receiving assurances have committed to certain, well-defined conservation measures. However, this is not the case in BDCP. As discussed above and in the NSWA comment letter, the BDCP's conservation measures and project description are vague, and their results are so uncertain that they remain subject to

substantial future revisions. Therefore, it is improper for the BDCP proponents to receive regulatory and economic assurances under the ESA and NCCPA when the BDCP is uncertain what conservation measures and biological objectives the BDCP permittees have committed to implement.

Similarly, one significant limitation on the assurances available under the ESA and NCCPA is that the permittee must have fully complied with and implemented the HCP/NCCP's environmental commitments. (See 63 F.R. 8859, 8872, Feb. 23, 1998; Fish & Game Code § 2820, subd. (f)(2).) Because the BDCP's conservation measures are not certain or well-defined, it would not be possible for the fish and wildlife agencies to evaluate full compliance and implementation of the measures.

For related reasons, CDFW may not provide assurances under the NCCPA for the proposed 50-year term of the incidental take permit. Under the NCCPA, CDFW must consider several factors when determining the level and term of assurances to be afforded a permittee. (See Fish & Game Code § 2820, subd. (f).) One factor CDFW must consider is the adequacy of analysis of the impact of take on covered species. (See Fish & Game Code § 2820, subd. (f)(1)(B).) As discussed in this letter and in the technical memorandum prepared by Cardno (Attachment B), the BDCP's analysis of the impact of take on aquatic species is deeply flawed. As a result, the BDCP is inadequate to support assurances under the NCCPA. Another factor CDFW must consider is the size and duration of the plan and the appropriateness of the size and duration of the plan regarding the quality and amount of data. (See Fish & Game Code § 2820, subd. (f)(1)(D), (H).) As the draft documents repeatedly acknowledge, the size and duration of the BDCP is unprecedented and it is subject to significant, cascading uncertainties regarding impacts on aquatic species. Therefore, the proposed assurances to the BDCP permittees cannot be justified under the NCCPA.

4. Assurances under the NCCPA would be inappropriate because it is impossible to determine how the BDCP could satisfy the NCCPA's rough proportionality requirement.

The NCCPA requires implementing mitigation and conservation measures to fully mitigate the impacts of authorized take. (See Fish & Game Code §§ 2081, subd. (b)(2).) The proposed mitigation must be roughly proportional in time and extent to the impact on habitat or covered species authorized under the plan. (Fish & Game Code §§ 4081, subd. (b)(9).) Before CDFW can approve a NCCP, it must find that implementation of the required mitigation and conservation measures will provide mitigation roughly proportional to impacts on habitat or covered species. (Cal. Code Regs., tit. 14, § 783.4, subd. (a)(2); see also Fish & Game Code § 2820, subd. (b)(9).) These provisions ensure that a permittee will simultaneously mitigate any authorized take to a proportional extent. Failure to maintain this rough proportionality between impacts and mitigation is a basis for CDFW to suspend or revoke the incidental take permit. (Fish & Game Code § 2820, subd. (c).)

CDFW cannot make the mandatory finding of rough proportionality based on the BDCP or the draft implementing agreement. The BDCP fails to adequately describe and analyze the

impacts of the proposed tunnels. (See above, Section B.2.) Because the BDCP does not adequately disclose what impact the tunnels will have, CDFW cannot find the tunnels' impacts have been fully mitigated under the NCCPA or that proposed mitigation will be reasonably proportional to the extent of the tunnels' undisclosed and unanalyzed impacts. If the proposed project's impacts cannot be well-defined, it simply is not possible to determine that the necessary mitigation will occur in a manner roughly proportional, in time and extent, to those project impacts.

Furthermore, the BDCP fails to adequately disclose and analyze the projects' proposed mitigation and conservation measures. The BDCP intends that proposed Conservation Measures 2 through 22 will mitigate the impacts of operating the proposed tunnels. However, the BDCP analyzes the proposed Conservation Measures 2 through 22 using a program level of environmental review, with many of the essential details left to future environmental review and decisions. Rather than disclosing and analyzing the conservation measures that the BDCP permittees would undertake to maintain rough proportionality, the BDCP treats the Conservation Measures 2 through 22 as a vague list of studies and activities the BDCP permittees might or might not undertake, subject to further development and environmental review. (See above, Section B.3.) With Conservation Measures 2 through 22 being defined at best at the program level and being subject to further development and changes through future environmental analyses -even subject to changes of fundamental biological objectives -it is not possible for CDFW to make a roughly-proportional find that would support any assurances under the NCCPA.

5. The BDCP fails to explain how assurances would affect regulatory decisions of other agencies, such as the SWRCB.

The BDCP contains no explanation how the regulatory and economic assurances that fish and wildlife agencies would provide to the BDCP permittees would affect other agencies that must approve the BDCP. As part of BDCP, Reclamation and DWR would submit water-right change petitions for the CVP and SWP to the SWRCB. The BDCP does not state whether the BDCP's regulatory and economic assurances would prevent the SWRCB from requiring additional concessions to protect environmental resources beyond those set forth in BDCP, or whether the SWRCB must look to other legal users of waters to meet the board's requirements.

6. Assurances for unforeseen circumstances under the NCCPA cannot extend to impacts from permittees' activities.

For DFW to issue an incidental take permit, CESA requires the impacts of the authorized take to be fully mitigated. (Fish & Game Code§ 2081, subd. (b)(2).) The California Supreme Court has interpreted this full mitigation requirement to prevent CDFW from providing regulatory and economic assurances for changed or unforeseen circumstances for which the BDCP permittees' activities were a contributing factor. (See *Environmental Protection Information Ctr. v. Cal. Dept. of Forestry* (2008) 44 Cal.4th 459, 512-513.) The BDCP's discussion of regulatory and economic assurances violates CESA's full mitigation requirement

because it fails to limit regulatory and economic assurance under BDCP to circumstances for which the BDCP permittees' activities were not a contributing factor.

7. The BDCP implementing agreement highlights the draft plan's lack of an adequate project description and does not meet the NCCPA's requirements for such agreements.

An implementing agreement is customary for a HCP and required for approval of an NCCP. (See Fish & Game Code § 2820, subd. (b).) Its purpose is to define the key structural and operational requirements for the HCP and NCCP. Under the NCCPA, the implementing agreement defines the scope of permitted take and any regulatory or economic assurances. (See Fish & Game Code § 2801, subd. (b).) The agreement also includes mechanisms to ensure adequate funding of the NCCP and provisions for suspension or revocation of the permit for violations of the incidental take permit. (Fish & Game Code § 2801, subd. (b)(3), (8).) The implementing agreement for BDCP is subject to NEPA and CEQA review (Fish & Game Code §§ 2815, subd. (a), 2826) and should have been released in December 2013 as part of the BDCP. However, the draft implementing agreement was not made available for a 60-day review period until May 30, 2014.

The draft implementing agreement highlights the BDCP's lack of an adequate project description. Like the BDCP, the draft implementing agreement does not describe how the proposed project would actually be implemented. Instead, the draft implementing agreement describes a series of decisions left to be made in the future about how the project might be designed and re-designed. These decisions could be made through adaptive management or the project's vague decision tree; in either case, the lack of a finite project description is spotlighted. The implementing agreement further provides that all of the key elements of the proposed project are subject to future development, changes and elimination, including the plan's biological objectives (pp. 24, 32-37), the decision tree for flows (p. 25), Delta outflow requirements (pp. 25-26), and all of the plan's Conservation Measures (p. 29). As the implementing agreement makes clear, the BDCP lacks a stable, adequate project description and leaves key elements of the plan to future design.

The implementing agreement also shows that the BDCP is inadequate for Reclamation to receive take authorization under Section 7 of the ESA. The agreement provides that the Reclamation will receive ESA coverage through an integrated biological opinion under Section 7 of the ESA and not through the permitting process. (Implementing Agreement (IA), pp. 3-4, 15, 17, 22.) This biological opinion will be incorporated in, and supported by, the BDCP. (IA, pp. 3-4.) Section 7 and its implementing regulations will require the biological opinion to broadly identify and analyze all direct and indirect impacts of the BDCP on covered species and critical habitat, together with the effects of other activities that are interrelated or independent with the BDCP. (See 50 C.F.R. §§ 402.02 (defining "effects of the action"), 402.14.) Interrelated effects and interdependent effects are those effects that would not occur "but for" the proposed project's larger actions. (*Ctr. for Biological Diversity v. United States BLM* (9th Cir. 2012) 698 F.3d 1101, 1113; USFWS and NMFS Endangered Species Consultation Handbook (March 1998) p. 4-

26.) Such effects include related actions that would occur to support the main proposed action. (*NRDC v. Rodgers* (E.D. Cal. 2005) 381 F. Supp. 2d 1212, 1236.)

Significant changes in the operation of reservoirs upstream of the Delta, including Folsom Reservoir, would be interrelated and interdependent effects of the BDCP. As discussed in many of the comments above, Folsom Reservoir operations apparently would have to change in the long-term to accommodate the BDCP and future climate change. This would be particularly true under the existing COA if Oroville Reservoir Storage would be used to meet increased Delta outflow requirements contained in BDCP permits. However, the BDCP improperly constrains its analysis to exclude impacts upstream from the Delta, including impacts to Folsom Reservoir, by saying these impacts are outside the project area. Because no proper analysis of interrelated and interdependent effects exists in the BDCP, Reclamation cannot receive ESA coverage based on the current BDCP. To meet Section 7's requirements, Reclamation would essentially have to redo the DEIR/EIS's analysis of impacts to covered species in its integrated biological opinion. The BDCP must be revised to include an analysis of interrelated impacts on upstream reservoirs.

Finally, as discussed above, the BDCP permittees' financial commitments are inadequate for the size and scope of the proposed conservation measures and 50-year adaptive management program. The draft implementation agreement's ostensible purpose is to detail and substantiate the BDCP permittees' commitments to fund the BDCP conservation measures. However, the draft implementing agreement merely incorporates by reference the vague financial commitments discussed in Chapter 8 of the BDCP. (See IA, p. 46.) The implementing agreement also provides no financial commitments whatsoever from the federal entities involved in the plan. (See IA, p. 46.) As a result, the draft implementing agreement fails to satisfy the NCCPA's requirement that the agreement identify adequate funding for the plan.

CONCLUSION

The BDCP and DEIR/EIS present significant risks for our region and contains numerous flaws that undermine its analysis, potential effectiveness, and ability to withstand legal challenge. Because of these risks and flaws, the plan must be significantly reconsidered and revised before any decisions can be made regarding permitting or implementing the plan. Because one significant flaw in the plan is unrealistic long-term modeling of Folsom Reservoir operations, our agencies renew our prior requests that Reclamation develop, and the revised BDCP integrate and analyze, a long-term plan for Folsom Reservoir operations that protects our region.

ARWA appreciates your attention to these comments and looks forward to your response.

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Enclosures
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