AQUALLIANCE
DEFENDING NORTHERN CALIFORNIA WATERS

April 25, 2012

Transmitted via email: commentletters@waterboards.ca.gov

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Subject: Comment Letter—Bay-Delta Plan Supplemental NOP—Comprehensive Review

Dear Ms. Townsend:

The California Water Impact Network (C-WIN), the California Sportfishing Protection Alliance (CSPA), AquAlliance and the Center for Biological Diversity appreciate the opportunity to provide comments on the scoping of the State Water Resources Control Board's Bay-Delta Water Quality Control Plan and the Plan's Substitute Environmental Document (SED). We respond to the Board's notices of preparation dated February 13, 2009, and January 24, 2012.[1]

The State Water Resources Control Board has ample and newly obtained authority to plan for and implement objectives and programs that improve Delta inflows, hydrodynamic conditions, and water quality.

For instance, the State Water Resources Control Board should announce, effective immediately, that the San Joaquin River flow objectives of Water Rights Decision 1641 are now in effect since the

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[1] State Water Resources Control Board, *Notice of Preparation and of Scoping Meeting for Environmental Documentation for the Update and Implementation of the Water Quality Control Plan for the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary: Southern Delta Salinity and San Joaquin River Flows*, February 13, 2009, p. 5. Accessible online at http://www.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/docs/notice2009feb13.pdf; and State Water Resources Control Board, *Supplemental Notice of Preparation and Notice of Scoping Meeting for Environmental Documentation for the Update and Implementation of the Water Quality Control Plan for the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary: Comprehensive Review*, issued January 24, 2012, p. 3. Accessible online at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/environmental_review/docs/notice_baydeltaplancompreview.pdf.

Vernalis Adaptive Management Plan and the San Joaquin River Agreement have expired. The Board should also state that these flow objectives would remain in effect until the Board adopts a new Bay-Delta Water Quality Control Plan and implementing water rights decision.

Other recommendations in our comment letter include:

- The Board should adopt flow criteria it approved in August 2010 as the core of the Project Description in the Water Quality Control Plan's Substitute Environmental Document.[2]

- The Board should maintain existing salinity criteria, rather than weaken them as is currently proposed, and take concrete action to curtail salt circulation through the western San Joaquin Valley and lower San Joaquin River from Delta water imports.

- The Board's "Category B" flow criteria should be the subject of highest priority research studies in the Bay-Delta Water Quality Control Plan program of implementation.

- The Board should require closure of the Delta Cross Channel and Georgiana Slough from February 1 through June 30 to allow maximum outmigration of fall-run Chinook salmon smolts.

- Between March 16 and June 30, Banks and Jones pumping plants should have combined export rates of zero (0) cubic feet per second.

- Inflows to the Delta from February 15 to March 15 should be sufficient to inundate floodplains to create rearing habitat.

- Flows (including consideration of pulse flows) between February 15 and April 30 be released in the Sacramento and San Joaquin Valleys that would maintain tributary temperatures at no higher than 59 degrees Fahrenheit to provide migration cues for juvenile salmon and to get juvenile salmon to the floodplains and to the Delta to rear before Delta water temperatures get too warm later in the spring and early summer.

- The Board should use the attached "Reduced Exports Plan" assembled by the Environmental Water Caucus as an alternative in the Bay Delta Water Quality Control Plan Substitute Environmental Document.

The State Water Resources Control Board has been urged by parties to the Bay-Delta Conservation Plan to delay completion of its Bay-Delta Water Quality Control Plan and new San Joaquin River flow objectives in hopes their plan for the Peripheral Canal/Tunnel would set the Board's regulatory agenda, rather than have the Board set its own agenda.

C-WIN, CSPA, AquAlliance, and the Center for Biological Diversity disagree strongly with such an approach. We urge the State Water Resources Control Board instead to exert its leadership as the sole agency responsible for water quality control planning and water rights regulation and allocation. BDCP parties have had such difficulty completing most elements of their plan in a timely

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[2] State Water Resources Control Board, *Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem*, prepared pursuant to the Sacramento-San Joaquin Delta Reform Act of 2009, August 3, 2009. Hereafter *Delta Flow Criteria Report*.

fashion because it lacks a public-trust protective regulatory framework that only the Board can provide.

It is plain old common sense for the Board to find out how much water there actually is before it decides how best to allocate it. It makes no sense to wait until after the Bay Delta Conservation Plan is approved to have flow assessments done for the Delta's major tributaries. The Board must determine how much water is really available before it can implement the Water Quality Control Plan or any other plan that involves transferring water through and around the Delta. Once those flows are known, then water rights priorities must be followed, with senior water rights holders having first call on available supplies over junior water rights holders.

The State Water Resources Control Board should assert its leadership through its Bay-Delta Water Quality Control Plan on the existing and newly proposed water quality objectives in order to ensure that its public trust findings set the agenda for economic and ecological recovery of the Bay-Delta Estuary and its public trust resources—regardless of whether BDCP comes to fruition. Delay for public trust resource protection in the Delta would continue to be justice denied for the Delta economy and its ecosystems.

Our letter provides first general comments on the context of this Notice of Preparation and then offers our views on the scope and necessary content of the SED's Project Description and Alternatives. In providing comments we also incorporate by reference comment letters provided to the State Water Resources Control Board by our organizations in the recent past.[3]

General Comments

The Board's 2013 Bay-Delta Water Quality Control Plan will be the first since new water legislation passed in November 2009. At that time, the State Legislature enacted, and then-Governor Arnold Schwarzenegger signed into law the Delta Reform Act and the Sustainable Water Use and Demand Reduction Act. These laws give the State Water Resources Control Board new authority to protect public trust resources in the Delta and meet the water supply challenges in this age of austere government budgets. The Board is empowered to make a substantial impact on California's water policy framework and water future. We urge you to seize the opportunity.

The Delta Reform Act. This act first mandated the State Water Resources Control Board to carry out an informational proceeding to produce new Delta flow criteria that reflect the river flows through the estuary and other actions that would be needed to enable the Delta's ecosystems to recover and thrive. We will return to this mandate shortly. The Delta Reform Act also announces that it is state policy to "reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use

[3] These comment letters to the State Water Resources Control Board include:

- Letter of 8 July 2008, *Comments on the Draft Strategic Workplan for the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary*, from Bill Jennings, California Sportfishing Protection Alliance, and Carole Krieger, California Water Impact Network.
- Letter of June 10, 2009, *2009 Periodic Review Staff Report Comments*, from Carolee Krieger, California Water Impact Network, and Bill Jennings, California Sportfishing Protection Alliance.
- Letter of May 23, 2011, *Comment Letter—Southern Delta Ag and SJR Flow Revised NOP*, from Carolee Krieger, California Water Impact Network; Bill Jennings, California Sportfishing Protection Alliance; and Barbara Vlamis, AquAlliance.

efficiency."[4] Given the plain language of this section of the Delta Reform Act, the State Water Resources Control Board must formulate its 2013 Bay-Delta Water Quality Control Plan objectives and program of implementation with the Legislature's strategic mandate always in mind.

A new Delta Watermaster is also authorized by the Delta Reform Act to evaluate and enforce water rights in the Delta. The Delta Watermaster is also authorized to submit regular reports to the State Water Resources Control Board and the Delta Stewardship Council including, but not limited to, reports on water rights administration, water quality issues, and conveyance operations. The 2013 Bay-Delta Water Quality Control Plan is an excellent opportunity for the State Water Resources Control Board to identify potential water rights, water quality, compliance and enforcement, and conveyance operations-related reports that it needs to make fully informed and publicly disclosed decisions in future water quality control plans and water rights orders and decisions needed for its program of implementation. The Delta Watermaster has already shown interest in the relationship of the state's Reasonable Use Doctrine and agricultural water use efficiency, water rights reporting, and in the status of in-Delta water rights enforcement.

Sustainable Water Use and Demand Reduction Act. In this law, the State Legislature sets new water conservation goals for both urban and agricultural sectors. Both agricultural and urban water suppliers must prepare and submit to the state new water management plans that detail how they will meet state water conservation goals. While agricultural water suppliers do not face mandated conservation targets yet, the act appears to create a process through which the state will be in a future position to identify targets based on usable information about agricultural water usage and present conservation efforts.

The State Water Board should use its 2013 Bay-Delta Water Quality Control Plan as its first opportunity to implement the will of the Legislature on water conservation and efficiency goals. Our organizations urge the Board to use these plans as bases for implementing and enforcing broader water rights changes, and water quality and water conservation policies through the vehicle of the Bay-Delta Water Quality Control Plan. These plans should be used to establish urban and agricultural water conservation objectives and measures of success. By using these conservation plans and disseminating water measurement techniques and technology, the State Water Resources Control Board has the opportunity to use its water quality control planning function to stimulate water conservation and efficiency efforts through establishment of statewide criteria for reasonable and efficient beneficial uses of water.

Big Questions. In both 2006 and 2009, the State Water Resources Control Board cited a lack of scientifically supported information as reason to delay changes to the Bay-Delta Water Quality Control Plan. Fortunately, now, the Board recognizes that scientific certainty is not the standard by which the Board may exercise its authority.[5]

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[4] California Water Code Section 85021: "The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts."

[5] *Delta Flow Criteria Report*, p. 4: "There is sufficient scientific information to support the need for increased flows to protect public trust resources; while there is uncertainty regarding specific numeric criteria, scientific certainty is not the standard for agency decision making."

The State Water Resources Control Board has more solid information than ever to answer some of the big questions that C-WIN and CSPA asked the Board when we commented on the Board's 2008 Bay-Delta Strategic Workplan:

1) How much water does the Delta need? and
2) What is known about current salt loading to the San Joaquin River and the South Delta and the role of hydrodynamics and flow in correcting salinity problems and obviating the need to relax water quality standards ("What is to be done about current salt loading to the San Joaquin River and Delta?").

In its February 13, 2009, Notice of Preparation, the State Water Board expressed its intent to "consider information developed to inform other Bay-Delta related processes."[6] Since that time, the State Legislature mandated that the State Water Board produce the above-mentioned informational *Delta Flow Criteria Report*. The Legislature also created the Delta Stewardship Council and mandated that it produce and complete a Delta Plan by early 2012. The Legislature has also required that the Bay Delta Conservation Plan, which was under way at the time of the 2006 Bay-Delta Water Quality Control Plan, be "considered" for inclusion in the Delta Plan.

Answers to the first question are readily found in the Board's own work on Delta flow criteria from 2010. That report's informational findings on all water quality control plan-related objectives should be incorporated into the public trust balancing analysis that the Board must perform. These objectives that should be reviewed should include:

- 75 percent of unimpaired Delta outflow from January through June
- 75 percent of unimpaired Sacramento River inflow from November through June
- 60 percent of unimpaired San Joaquin River inflow from February through June
- Increased fall Delta outflow in wet and above normal years
- Fall pulse flows on the Sacramento and San Joaquin Rivers to stimulate migrating fish
- Flow criteria in the Delta interior to help protect fish from mortality in the central and southern Delta caused by operations of the state and federal water project export pumps.

The Delta Plan and the Bay Delta Conservation Plan are charged with similar missions of achieving two so-called "coequal" goals of improving water supply reliability and improving the Delta's ecosystems and economy through habitat restoration projects. The formulation of "coequal goals" is mistaken, however, if the Bay-Delta Water Quality Control Plan implements water quality objectives that continue the practice of giving Delta exports and water supply reliability priority over the needs of fish. This has gone on for far too long, and in the absence of State Water Board and Delta Stewardship Council public trust balancing, the BDCP and Delta Plan threaten continued destructive levels of Delta export pumping with devastating consequences for listed species upstream and in the Delta.

Putting aside the merits of the co-equal goal formulation, our organizations wish to call your attention to a number of critical evaluations:

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[6] See note 1 above, February 13, 2009, notice, p. 5.

- The Delta Plan[7]
- The Bay Delta Conservation Plan[8] and
- Address ecological, economic, and water rights and area of origin protections.[9]

With these critiques in mind, the prospect of there being water available to divert legally into the Peripheral Canal/Tunnel project (and therefore the water supply reliability side of the "co-equal goals") is readily called into question from environmental and water rights perspectives.

The Board must undertake a water availability analysis of the entire Bay-Delta Estuary's Central Valley watershed. This analysis should incorporate the scientific justifications for the Delta flow criteria that the Board has worked on since 2010 and use the criteria as the basis from which water rights priorities are carried out. Such an analysis should determine officially whether a north Delta diversion for the Peripheral Canal/Tunnel is even legal. As Attorney Tim O'Laughlin, representing the San Joaquin River Group Authority has correctly pointed out, "The reduction or elimination of junior rights is not based upon a finding of wrongdoing. The reduction in the rights of the junior water right holders is a function of their lack of rights, and not in the reasonableness or unreasonableness of their use."[10] If no water is available there are no rights to its use. Our organizations believe the Canal/Tunnel project is not likely to be legal, given the extent of paper water in the Central Valley watersheds.

Executive Director Thomas Howard's statement to Gerald Meral in December 2011 that the State Water Resources Control Board "has an independent duty to make its own findings and it will not be bound by other agencies' requirements or permit terms in its own decision-making."[11] The areas of water rights allocations, beneficial use protections, determination of wasteful and unreasonable uses and methods of use and diversion of water, and public trust resource protection are precisely where the Board's independent duty lies. Determine how much water is truly available to meet all

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[7] See environmental coalition Delta Plan Environmental Impact Report comment letters online at http://www.c-win.org/delta-stewardship-councils-delta-plan.html.

[8] See The Bay Institute and Defenders of Wildlife. 2012. *The BDCP Effects Analysis: A Briefing Paper*. February, 12 pages, accessible online at http://www.bay.org/assets/BDCP%20EA%20Briefing%20Paper%2022912.pdf; and The Bay Institute. 2012. *Collateral Damage: A Citizen's Guide to Fish Kills and Habitat Degradation at the State and Federal Water Project Pumps in the Delta,* March, 20 pages, accessible online at http://www.bay.org/assets/Collateral%20Damage_4_2.pdf ;

[9] See Letter from Northern California Water Association to Dr. Jerry Meral, Deputy Secretary, California Natural Resources Agency, *BDCP Modeling Upstream Contributions to Meet BDCP Goals and Objectives*, March 14, 2012; and Letter from Stuart L. Somach, Somach Simmons & Dunn, to Karen Scarborough, Undersecretary, Natural Resources Agency, *BDCP Modeling for Proposed Project Operations*, September 3, 2010, accessible online at http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/BDCP_Modeling_for_Proposed_Project_Operations.sflb.ashx.

[10] See letter from Tim O'Laughlin, O'Laughlin & Paris LLP (representing San Joaquin River Group Authority) to Charlie Hoppin, Frances Spivy-Weber, Tam Doduc, and Dwight Russell, *Need to Disclose Legal Theory Behind Intended Plan of Implementation*, February 22, 2011, footnote 1, p. 2.

[11] Letter from Thomas Howard, State Water Resources Control Board, to Gerald H. Meral, PhD, Deputy Secretary for the Bay Delta Conservation Plan, California Natural Resources Agency, December 19, 2011, p. 1.

Bay-Delta Estuary beneficial uses and protect the public trust resources, and the State Board will have done its job. Neither the Delta Stewardship Council nor the Bay Delta Conservation Plan have such broad authority. Since BDCP's authorization comes strictly from federal and state endangered species acts, it is clear that the Board has much broader authority to plan for water quality control, and review and condition water rights permits.

C-WIN and CSPA's second question from 2008 about salt loading also has ready answers that the State Water Resources Control Board remains slow to address. Continued export of Delta water to irrigate lands of the western San Joaquin Valley is well known as the predominant source of salinity loading that circulates back to the south Delta. Reduction or elimination of this salt source would go a long way toward reducing salt loads reaching the South Delta, but the Board drags its feet on this obvious solution. We discuss this more under the program of implementation section below.

The aforementioned enforcement of Water Rights Decision 1641 San Joaquin River flow objectives would help accomplish this. It is an action the Board could take immediately and legally. This is likely to require that more flows originating in the Upper San Joaquin River Basin come through Vernalis. Unfortunately, the Board is presently turning a blind eye to that possibility too, having excluded the Upper San Joaquin River from its consideration of San Joaquin River flow objectives.

Scope of the Project Description

The State Water Resources Control Board's 2009 Period Review Staff Report of the Bay-Delta Plan called for further review of Delta outflow, export and inflow objectives, Delta Cross Channel Gate closure objectives, and Suisun Marsh objectives. In addition, the Board's staff report called for consideration of "potential new reverse flow objectives for Old and Middle River" and "potential new floodplain habitat flow objectives". The review also calls for the Board to make changes to the monitoring and special studies program and its program of implementation.

The Board's 2010 *Delta Flow Criteria Report* provides a great deal of well-founded and scientifically sound research and support for establishing new numeric objectives in all of these areas. The Substitute Environmental Document's project description should provide thorough descriptions of these new objectives, and explain the reasons why any are left out.

Delta Outflow and Sacramento River Inflow Objectives. Delta outflow and Sacramento River inflow at Rio Vista criteria are both proposed at 75 percent of unimpaired flow in the 2010 *Delta Flow Criteria Report*. There, the Board suggests many additional criteria under these broader categories of flow that should be included: fall X2 (the low salinity zone "boundary"), fall Delta outflow, and Sacramento River pulse flows to benefit for juvenile salmon migration and attraction. Where criteria are strong in concept but less so in scientific backing, the Board should prioritize the scientific issues for the criteria in its research program of implementation.[12] Moreover, the Board is correct to point out that scientific certainty is not the standard by which the Board bases its decisions. Our organizations recommend that the Board adopt new Delta outflow and Sacramento River inflow (at Rio Vista, for example) criteria on the order of 75 percent of unimpaired flow, and with the proviso that flows are to be managed to mimic the natural hydrograph.

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[12] *Delta Flow Criteria Report*, pp. 98-114. Category B criteria for Delta outflow include:

2) Fall X2 for September through November
   - Wet years X2 less than 74 km (greater than approximately 12,400 cfs)
   - Above normal years X2 less than 81 km (greater than approximately 7,000 cfs)
3) 2006 Bay-Delta Plan Delta Outflow Objectives for July through December.

Our organizations also recommend that the Board adopt X2 criteria that maximize the size of the low salinity zone in the western Delta and Suisun Bay regions throughout the year in order to increase the size and quality of habitat for Delta smelt and longfin smelt and promote improved abundance and productivity for these and other estuarine species. Provision of greater Delta outflows and lower X2 distances from the Golden Gate will reflect stronger flow conditions, lower residence times of toxins in Delta waters, and in the case of selenium, can help to minimize the rate at which chemical partitioning occurs, resulting in the entry of selenium into benthic and other food webs of the Bay-Delta Estuary.

Keeping X2 closer to the Golden Gate is also likely to make hydrodynamic and water quality conditions less hospitable to invasive species over the long-term, such as *Corbula amurensis* (the Asian clam). Some of these invasive species are also important bioaccumulators of toxics such as selenium. Our organizations recommend that the State Board take into account these hydrodynamic, ecological, and water quality benefits of higher Delta outflows in setting the final criteria for the SED's project description.

Exports, Inflows and Reverse Flows. The Board's hydrodynamics discussion in its 2010 *Delta Flow Criteria Report* describes eight potential criteria relating to exports and Old and Middle River (reverse) flows, seven of which are "category B criteria" in need of more scientific information in the Board's view.[13] Our organizations recommend that all of these criteria should be reviewed in light of the San Joaquin River flow objective the Board chooses later this year and the flow objectives most protective of public trust resources should be selected.

Our organizations also recommend that the Board propose and adopt new objectives for Old and Middle River that protect pelagic and migrating fish, especially longfin smelt, Delta smelt, salmon smolts, and juvenile steelhead. The State Water Resources Control Board should gather scientific information and analysis needed to convert these Category B criteria into Category A criteria as a high research priority in its program of implementation.

We also urge the Board to give equal treatment to pelagic species in developing criteria. While it is true that what often benefits the anadromous fisheries benefits the pelagics, the reverse may also be true, for which further study is needed. The Board should take the lead in developing heuristic

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[13] *Delta Flow Criteria Report*, p. 123. The Category A criterion was: "1) San Joaquin River Flow to Export Ratio: Vernalis flows to exports great[er] than .33 [*sic*] during the 10 day San Joaquin River pulse flow in October." Category B criteria included:

2) Old and Middle River Flows: greater than -1,500 cfs in March and June of Critical and Dry water years
3) Old and Middle River Flows: greater than 0 or -1,500 cfs in April and May of Critical and Dry water years, when FMWT [Fall Midwater Trawl] index for longfin smelt is less than 500 or greater than 500, respectively
4) Old and Middle River Flows: greater than -5,000 cfs from December through February in all water year types
5) Old and Middle River Flows: greater than -2,500 [cfs] when salmon smolts are determned to be present in the Delta from November through June
6) San Joaquin River Flow to export Ratio: Vernalis flow to exports greater than 4.0 when juvenile San Joaquin River salmon are migrating in the mainstem San Joaquin River from March through June
7) San Joaquin River at Jersey Point Flows: Positive flows when salmon are present in the Delta from November through June
8) 2006 Bay-Delta Plan Exports to Delta Inflow Limits for the Entire Year.

techniques for showing how and when these different species may see mutual benefits from the Board's efforts to mimic the natural hydrograph as it remakes the Bay-Delta Estuary flow regime.

Substantive attention to the needs of pelagic fish species of the Delta estuary is also vital to avoid the massive kills of fish such as occurred during 2011 at the Banks and Jones pumping plants.[14] The State Water Resources Control Board has acknowledged that "a safe level of exports is not known."[15] Even earlier, the Board has stated, "To provide full mitigation of project impacts on all fishery species now would require the virtual shutting down of the project export pumps."[16] Since the Board has allowed exports year-round for too long with disastrous ecological consequences in the Delta estuary, C-WIN, CSPA, AquAlliance, and the Center for Biological Diversity urge the Board to close the Delta Cross Channel Gates and Georgiana Slough to keep migrating juvenile salmon in the mainstem Sacramento River and reduce the likelihood of their entrainment southward into the Banks and Jones pumping plants between February 1 and June 30.

For this same reason, our organizations also recommend that Banks and Jones pumping plants have a combined export rate of zero cubic feet per second between March 16 and June 30, and that closures be adopted for times of year when poor dissolved oxygen conditions occur on the mainstem San Joaquin River to provide sufficient aerated flows to pass through the Stockton Deepwater Ship Channel.[17]

Floodplain Habitat Flow Objectives. Our organizations are pleased that the Board seems poised with scientific information and analysis of floodplain habitat flows from its 2010 *Delta Flow Criteria Report* and its staff technical report drafts on the scientific basis for alternative San Joaquin River flow and southern Delta salinity objectives (2010 through 2012). It is clear from scientific research findings presented to the Board that there are strong reasons that flows benefit fish (as productive rearing habitat and refuge for young fish from pelagic predators) when those flows inundate floodplains in the lower reaches of the major rivers (especially Yolo Bypass, the lower Sacramento River and lower San Joaquin River and its major tributaries).

One of the major problems with planning concepts emerging from the Bay-Delta Conservation Plan is the idea that habitat can substitute for flows. Our organizations reject this notion. We urge the Board to be mindful of its own words from the 2010 *Delta Flow Criteria Report* on this matter:

> The flow criteria identified in this report highlight the need for the BDCP to develop an integrated set of solutions, to address ecosystem flow needs, including flow and non-flow measures. Although flow modification is an action that can be implemented in a relatively short time in order to improve the survival of desirable species and protect public trust resources,

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[14] See The Bay Institute, *Collateral Damage*, note 8 above.

[15] State Water Resources Control Board, *Draft Water Quality Control Plan for Salinity, San Francisco Bay/ Sacramento-San Joaquin Delta Estuary*, October 1988, p. 7-32.

[16] State Water Resources Control Board, *Water Right Decision 1485*, August 1978, p. 13.

[17] Tim Stroshane, Senior Research Associate, California Water Impact Network, *Closing Statement to the Proceeding to Develop Delta Flow Criteria for the Delta Ecosystem Necessary to Protect Public Trust Resources*, Table 1. Accessible online at http://www.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/closing_comments/cwin_closing.pdf. See also Table 1 of California Sportfishing Protection Alliance closing statement, online at http://www.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/closing_comments/cspa_closing_tab1.pdf.

> public trust resource protection cannot be achieved solely through flows—habitat restoration also is needed. *One cannot substitute for the other; both flow improvements and habitat restoration are essential to protecting public trust resources.*[18]

The State Board has announced its intention to introduce new floodplain inundation objectives with this 2013 Bay-Delta Water Quality Control Plan.[19] Our organizations urge that you adopt such objectives and recommend that the Board identify floodplain flow criteria to protect pelagic and migrating fish, especially longfin smelt, Delta smelt, Sacramento splittail, salmon smolts, and juvenile steelhead. We recommend, based on our closing statement to the State Board in 2010 that minimum flows of 13,400 cubic feet per second for floodplain inundation occur between February 15 and March 15 annually in all water years, though for different durations depending on water year types.[20] We also urge the Board to be mindful that the frequency of floodplain inundation should be every year. Providing these flows should not be solely at the convenience of water right holders. The Board's obligation is not only to determine the level of public trust protection in this process, but to implement those protections to ensure their continuing, sustained recovery and success.

Temperature and Cold Water Pool Protections. The Board's 2010 *Delta Flow Criteria Report* takes note of the need to conduct modeling and analysis of temperature and water supply (and water rights, we recommend) on how best to apply the percentage of unimpaired flow criteria in ways that achieve both flow and cold water temperature protections for fish in upstream tributaries at key times of the year. Key times must include both the most sensitive life stages of migrating fish but also times of year when listed or special status fish species inhabit rivers upstream, such as steelhead, winter- and spring-run salmon, and green sturgeon.

Our organizations urge the Board to propose and adopt new temperature and cold water pool objectives for the Bay-Delta Water Quality Control Plan to apply at upstream reservoirs. These criteria would apply to the reservoirs on upstream tributaries of the Bay-Delta Estuary's Central Valley watershed, and our organizations support their development. C-WIN and CSPA recommended temperature protections for the mainstem tributary streams of the Central Valley watershed. Our three organizations recommend these protections here for the preparation of the 2013 Bay-Delta Water Quality Control Plan: Pulse flows should be used to maintain tributary water temperatures during the late winter and spring months at no higher than 59 degrees Fahrenheit, and provide migration cues for juvenile salmon and to get juveniles to the Delta to rear before Delta water temperatures get too warm in the late spring and summer months.

Program of Implementation. Time extension requests for the water rights permits of both the federal Central Valley Project and the State Water Project were filed by the Bureau and the Department since the State Water Resources Control Board performed its 2009 periodic review of the 2006 Bay-Delta Water Quality Control Plan. The Bureau's request involves 32 different water rights permits, while the Department's request involves six permits. The State Water Resources Control Board should describe in its program of implementation a timetable and process for

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[18] *Delta Flow Criteria Report*, p. 7. Emphasis added.

[19] See note 1 above, January 24, 2012 notice, p. 3.

[20] Stroshane, *op. cit.*, Table 1. See also Testimony of Carl Mesick, *Statement of Key Issues on the Volume, Quality, and Timing of Delta Outflows, Necessary for the Delta Ecosystem to Protect Public Trust Resources with Particular Reference to Fall-Run Chinook Salmon in the San Joaquin River Basin*, February 16, 2010, Table 1, p. 3.

deciding on these water rights permit time extension requests for the permits. C-WIN, CSPA, AquAlliance, and the Center for Biological Diversity urge the Board to incorporate the time extension requests in the water rights implementation phase associated with implementing the Water Quality Control Plan, rather than hold a separate hearing or, worse, delay it beyond the Plan's implementation phase.

The Board's actions disclose a pattern of wanton disregard for the future productivity of farm lands in the western San Joaquin Valley and the South Delta by continuing salt-loaded Delta exports to irrigate those lands via the Central Valley Project. This is unequal treatment with no justification in public policy. It is time for the Board to hold responsible the western San Joaquin Valley irrigators for their salt discharges and their continued importation of Delta water that contributes to the circulation of salt in the San Joaquin River Basin. The Board can dramatically improve the South Delta situation as well by first requiring additional land retirement from irrigation with Delta imported water, and second, by increasing San Joaquin River inflows at Vernalis to dilute the salty drainage return flows enough to make unnecessary moving the goalposts (that is, relaxation of South Delta salinity objectives).

The Board possesses the authority to reduce or eliminate this source of salt (and selenium, and other toxic elements that are mobilized by irrigation of these lands with Delta water imports) by placing new conditions on Central Valley Project water rights permits. Despite having this authority, the Board has preferred to delegate to the Central Valley Regional Water Quality Control Board the responsibility for coming up with solutions to San Joaquin River water quality problems, such as CV-SALTS and the Irrigated Lands Program. Both of these programs have avoided identifying and implementing practical and effective solutions to the agricultural land productivity problems posed by salinity.

To this record of under-achievement, the State Water Resources Control Board would add its intent to relax the salinity objectives that are intended to protect South Delta agricultural beneficial uses.[21] Neither the long-term productivity of agricultural soils in the western San Joaquin Valley and the South Delta nor the productivity of lower San Joaquin River and South Delta estuarine and agro-ecosystems are served by relaxation of these salinity objectives. On its face, the proposed relaxation contradicts the State Water Resources Control Board's own anti-degradation policy adopted in 1968.[22] If the Board continues along these lines, the 2013 Bay Delta Plan must articulate its justification for degrading salinity conditions in the South Delta and thoroughly analyze the impacts. To date, the Board has offered no clear justification for this course of action. Our organizations doubt a reasonable one can be provided.

C-WIN, CSPA, AquAlliance, and the Center for Biological Diversity raise this issue and comment on the South Delta salinity objectives here because it relates so clearly to the 2013 Bay Delta Plan's program of implementation. In the 2006 Bay-Delta Water Quality Control Plan, the Board includes salinity control in its program of implementation as among those matters that are within its direct authority to regulate. It lists among the "measures requiring a combination of State Water Board authorities and actions by other agencies" its powers to condition water rights "on the presence of dilution flows." (p. 28) The Central Valley Regional Water Quality Control Board is also noted for

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[21] State Water Resources Control Board, *Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives,* February 2012, pp. 4-1 to 4-14 and A-5 to A-11.

[22] State Water Resources Control Board. 1968b. Resolution No. 68-16 (Oct. 28,). Accessible online at http://www.waterboards.ca.gov/centralvalley/water_issues/salinity/laws_regs_policies/rs68-016.pdf.

having authority to impose discharge controls on in-Delta discharges of salts, and that Board's Total Maximum Daily Load (TMDL) for salinity. The State Water Board noted in 2006 that "the salinity objectives for the interior southern Delta can be implemented by measures that include state regulatory actions, state funding of projects and studies, regulation of water diversions, pollutant discharge controls, improvements in water circulation, and long-term implementation of best management practices to control saline discharges." In the same section (pages 29 through 31), the Board's 2006 program of implementation lists seven specific programs intended to address collaboratively the salinity problems of the lower San Joaquin River and the South Delta.[23]

This is an impressive array of powers and authorities for controlling salinity in the South Delta. The 2013 Bay-Delta Water Quality Control Plan should provide updates for each program, describe any new initiatives undertaken since the 2006 Bay-Delta Plan, and provide a current evaluation of successes and limitations of each program. Such a presentation will inform Board members and the public about the progress (or, the lack thereof) being made to preserve and protect the long-term productivity of two key agricultural regions of California: the San Joaquin Valley and the Delta. It is our expectation that this evaluation will reveal little progress toward achieving current salinity objectives for the South Delta, but we welcome a thorough evaluation whatever the outcome.

Water Rights Decision 1641 required that as of April 2005, the US Bureau of Reclamation and the California Department of Water Resources would be responsible for complying with the South Delta salinity objectives. The agencies have had difficulty complying. By February 2006, the State Water Resources Control Board had issued a Cease and Desist Order against the Department and the Bureau. In January 2010, the Board modified that Order to allow the Department and the Bureau more time to devise ways of complying with the existing salinity objectives by use of internal barriers and other potential methods.

In addition to evaluating its tardy salinity control implementation programs, the State Water Resources Control Board should also provide a full update on compliance by the Department of Water Resources and the US Bureau of Reclamation with the conditions of the Board's 2010 modified cease and desist order.[24] This update should include, but not be limited to, an evaluation of the findings of the Department and Bureau's studies required by condition 7. The Board should also report on the findings provided by the Department and the Bureau in quarterly monitoring status reports detailing the agencies' compliance performance with current South Delta salinity standards. The Board should also report in the Water Quality Control Plan on the outcome of what our organizations hope is an enforcement action by the Delta Watermaster on the Department and the Bureau concerning the agencies' continued inability to project and then notify the Board and Watermaster of South Delta salinity violations.

The Delta Watermaster recently reported to the State Water Resources Control Board that since October 2008, Board staff has investigated and evaluated water rights for over 1,000 properties in

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[23] These programs include: the Grasslands Bypass Project, West Side Regional Drainage Plan, San Luis Drainage Feature Re-Evaluation Project, the Central Valley Project Improvement Act Land Retirement Program, the San Joaquin River Real-Time Water Quality Management Program, the South Delta Improvement Program, and Delta-Mendota Canal Recirculation.

[24] State Water Resources Control Board, *Order WR 2010-0002, Order Modifying Order WR 2006-0006*, January 5, 2010.

the Delta, closing the vast majority of them through preliminary investigation and further review.[25] One percent (1%, or twelve cases) were found to involve illegal diversions and failure to file diversion reports, though the Delta Watermaster does not indicate what amount of water was illegally diverted in those cases.

The Delta Watermaster recommends that further compliance and enforcement efforts focus on special districts in the Delta who divert water under their water rights and/or furnish water to individuals under the latter's rights. Our organizations fervently hope that the Delta Watermaster include the Department and the Bureau in this process, since salinity violations signify that State Water Project and Central Valley Project diversions exceed their legal rights to divert. In so doing, they encroach on the legitimate water rights of other users in the Delta. The State Water Resources Control Board should report on enforcement efforts by the Board and the Delta Watermaster in the 2013 Bay-Delta Water Quality Control Plan.

C-WIN, CSPA, AquAlliance, and the Center for Biological Diversity regard the State Water Resources Control Board's proposal to relax salinity objectives for the South Delta as hypocritical and contrary to law. The Board should enforce existing standards, not relax them. The proposal instead shows an undue laxity toward farmers of the western San Joaquin Valley whose privilege to discharge excessive salt loads into the river comes at the expense of farmers with paramount or senior rights drawing water from South Delta river channels. The proposal is essentially an attack by San Joaquin Valley agricultural interests on South Delta farming interests. Such an obvious ploy to retain the privilege of usurping senior Delta water right holders should not be tolerated in statewide water policy. Continuing the practice disregards Delta water rights through lax water quality control regulation.

C-WIN, CSPA, AquAlliance, and the Center for Biological Diversity urge the State Water Resources Control Board to use its Water Quality Control Plan's Substitute Environmental Document to examine the public trust resource effects of relaxing the South Delta salinity objectives, even though the standards are intended to protect agricultural beneficial uses. We believe it is a matter for public trust review since agricultural land productivity is a critical resource of public value, and some of California's most productive soils are found in the South Delta. It has also been well known that migratory fish navigate to their natal streams in part by following salt gradients through the Bay-Delta Estuary. The Substitute Environmental Document must take account of and disclose what effects on migratory fish could result from relaxation of the South Delta salinity objectives.

Over the years since the 2006 Bay-Delta Plan, the State Water Resources Control Board has been provided with authoritative reports by the California Department of Water Resources, the US Bureau of Reclamation, and the South Delta Water Agency that have identified the source regions, the source flows, the salt loads, and historical data that indict Central Valley Project Delta imports to the western San Joaquin Valley, as well as San Joaquin River exports via the Friant-Kern Canal as

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[25] Craig M. Wilson, Delta Watermaster, *Water Right Compliance and Enforcement in the Delta: A Report to the State Water Resources Control Board and the Delta Stewardship Council*, Item 9 before the State Water Resources Control Board's February 7, 2012, meeting. Accessible online at http://www.swrcb.ca.gov/board_info/agendas/2012/feb/020712_9_with%20report.pdf.

primary causes of salinity problems in the South Delta.[26] These reports provide important scientific and analytic information about the sources of salinity and salt loading to the South Delta. Their findings point back to the obvious need to stop the salinity equivalent of using gasoline to put out a fire. The Board tolerates a vicious cycle of salt imported from the Delta, added to salt leached from the western San Joaquin Valley lands, in order to drain it back to the south Delta.

Scope of Alternatives

Our organizations are aware that the State Water Resources Control Board has worked with the California Department of Water Resources to analyze an "enhanced ecosystem protection alternative" for the BDCP that results in reduced south of Delta diversions. One positive aspect of the Board's suggested alternative is its application of strong environmental protections combined with apparent application of the water rights priority system.[27] Executive Director Howard later stated in December 2011 that preliminary model results show that this alternative would increase mean annual Delta outflow by approximately 1.6 million acre-feet and reduce Delta exports to the south by 1.5 million acre-feet per year relative to the BDCP's no action alternative. Howard stated his belief at the time that "this alternative will allow DWR and other lead agencies, and the State Water Board, to evaluate a sufficiently broad range of alternatives to inform their respective processes."[28]

If Mr. Howard is referring to the alternatives analyses in either the San Joaquin River Flow Objectives Substitute Environmental Document or the Substitute Environmental Document for the Bay-Delta Water Quality Control Plan, our organizations believe he has characterized too narrowly

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[26] These studies include: California Department of Water Resources. 2006. *Description of Department of Water Resources Compliance with State Water Resources Control Board Water Right Decision 1641*, Response to Senate Bill 1155 enacting California Water Code Section 138.10, January, 49 pages including appendices. Accessible online at http://baydeltaoffice.water.ca.gov/announcement/D1641_final.pdf; California Department of Water Resources. 2011. *Low Head Pump Salinity Control Study: Prepared to meet requirements of the State Water REsources Control Board Water Rights Order WR 2010-0002, Condition A.7.* Bay-Delta Office, April, 61 pages plus appendices. Accessible online at: http://www.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/docs/lhscs_rpt.pdf; United States Bureau of Reclamation. 2011. *Special Study: Evaluation of Dilution Flow to Meet Interior South Delta Water Quality Objectives: To Meet Water Rights Order 2010-002 Requirement 7*, April 8, 47 pages plus appendices. Accessible online at http://www.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/docs/spcl_stdy1.pdf for Main Report through Appendix C and http://www.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/docs/spcl_stdy2.pdf for Appendices D through G; and United States Water and Power Resources Service and South Delta Water Agency. 1980. *Effects of the CVP [Central Valley Project] Upon the Southern Delta Water Supply, Sacramento-San Joaquin River Delta, California*, June, 179 pages.

[27] Letter from Thomas Howard, State Water Resources Control Board, to Gerald H. Meral, *Environmental Analyses in Support of the Bay Delta Conservation Plan*, August 24, 2011, p. 1. In this letter, Mr. Howard requests that the Department of Water Resources prepare a model run that would result in:

- no negative effects on cold water pool storage;
- not drawing down Sacramento Valley groundwater levels;
- no decreased water supplies other than south-of-Delta Central Valley Project and State Water Project deliveries;
- no failure to deliver San Joaquin River exchange water rights; and
- no failure to deliver refuge water.

[28] Letter from Thomas Howard, State Water Resources Control Board, to Gerald H. Meral, PhD, Deputy Secretary for the Bay Delta Conservation Plan, California Natural Resources Agency, December 19, 2011, p. 2.

the range of reasonable and feasible alternatives. C-WIN, CSPA, AquAlliance, and the Center for Biological Diversity recommend that the Substitute Environmental Document contain an additional alternative that reflects firm priorities of environmental protection and reduced reliance on the Delta as a water supply pursuant to California Water Code Section 85021 from the Delta Reform Act of 2009. The Environmental Water Caucus's alternative parameters for an environmentally superior and feasible alternative water future for California were submitted to the Delta Stewardship Council. Unfortunately, the Delta Plan Draft Environmental Impact Report failed to include an adequate representation of the Caucus's alternative.[29] It appears that the Delta Plan EIR will be revised and recirculated for more public review and comment.

C-WIN, CSPA, AquAlliance, and the Center for Biological Diversity endorse the recently issued "Reduced Exports Plan" of the Environmental Water Caucus, attached to this letter. Given the practical and state-mandated linkages among the Delta Plan, the Bay-Delta Conservation Plan, and the Board's own 2013 Bay-Delta Water Quality Control Plan, it is imperative that the State Water Board conduct its environmental evaluation with an alternative that has truly environmental credentials so that all plans are adequately evaluated and coordinated, to avoid piecemealing. Accordingly, we request that the State Water Resources Control Board use this Reduced Exports Plan as one of the alternatives in the Water Quality Control Plan SED so that the SED provides a reasonable range of alternatives when complying with the California Environmental Quality Act.

In relation to alternatives analysis and methodology, C-WIN, CSPA, AquAlliance, and the Center for Biological Diversity continue to be deeply concerned about the Board's reliance on CalSIM II for environmental review and impact analysis. Its usage in the Bay-Delta Water Quality Control Plan Substitute Environmental Document should be subjected to peer review, and our organizations recommend that time for adequate review be built into the Document's production schedule. All model assumptions should be disclosed in plain language so that lay readers understand the true significance of comparisons made among alternatives. The State Water Resources Control Board should report CalSIM II results with caveats about their limitations and range of validity. The Board should base its interpretation and findings based on these results with caution, when making determinations about the merits of each alternative. In comparing alternatives, the sensitivity of model results to changed assumptions should be disclosed and evaluated. Several peer reviews of CalSIM II should be helpful in this regard, and we provide the Board with citations in this letter.[30]

The Delta Watermaster has reminded the public recently that reasonable use of water is the law in California. "All water use must be reasonable and beneficial regardless of the type of underlying water rights. No one has an enforceable property interest in the unreasonable use of water." Thank you very much for considering these issues, including those we incorporated by reference with this

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[29] Discrepancies between the Environmental Water Caucus alternative and Alternative 2 of the Delta Plan Draft Environmental Impact Report are numerous, and are detailed and criticized in the Letter of Michael B. Jackson to the Delta Stewardship Council, February 2, 2012, *Re: California Sportfishing Protection Alliance, California Water Impact Network, AquAlliance, and the Pacific Coast Federation of Fisherman's Associations' Comments to the Draft Delta Plan Program Environmental Impact Report*, pp. 16-17, and 30-33.

[30] Jeffrey T. Payne and David R. Purkey, *An Environmental Review of CalSim-II: Defining "Full Environmental Compliance" and "Environmentally Preferred" Formulations of the CalSim-II Model*, Water Resources Modeling and Analysis Unit, Natural Heritage Institute, Sacramento, California, July 2005, 63 pages; Review Panel Report: San Joaquin River Valley CalSim II Model Review, 12 January 2006, 87 pages; Ines C. Ferreira, Stacy K. Tanaka, Sarah P. Hollinshead, and Jay R. Lund, "Musings on a model: CalSim II in California's water community," *San Francisco Estuary and Watershed Science*, 3(1), 14 pages.

letter. C-WIN, CSPA, AquAlliance, and the Center for Biological Diversity look forward to our continued participation in this process.

Sincerely,

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Attachment: Environmental Water Caucus, *Reduced Exports Plan*

REDUCED EXPORTS PLAN

Developed by the Environmental Water Caucus
April 2012

The following summarizes the main actions supported by the Environmental Water Caucus in relation to the Sacramento-San Joaquin Bay Delta. We recommend that this series of related actions be bundled into a single alternative – as we have done in this document – and evaluated in any future plans per NEPA and CEQA guidelines, or by the State Water Resources Control Board. Many of these recommendations have been presented to the Delta Stewardship Council as part of Alternative 2 for the Delta Plan. The actions are largely based on the EWC report *California Water Solutions Now*, ewccalifornia.org which can be referenced for supporting details. *This package of actions ("The Plan") represents the EWC alternative to the BDCP*.

Reduce Exports To 3MAF In All Years, In Keeping With Anticipated SWRCB Flows Criteria.

The Delta Flows Criteria promulgated by the State Water Resources Control Board clearly indicates that the state has reached – and exceeded – the amount of water that can responsibly be diverted from the Bay Delta. As a result, this plan anticipates future limitations on Delta exports below the level of the 2000-2007 time periods in its plan to meet Delta ecosystems restoration goals. The recent PPIC report reinforces this: "given the extreme environmental degradation of this region, water users must be prepared to take less water from the Delta, at least until endangered fish populations recover."

Over the years, a number of processes have identified the need to dramatically improve outflows in order to recover listed species to a sustainable level and restore ecosystems in the Bay-Delta. From 1988, when the State Water Resources Control Board (SWRCB) proposed – but withdrew without public discussion – standards that would have required an average increase in outflow of 1.5 million acre-feet over the lower diversion levels of the period before the late 1980s, to 2009, when the California Legislature adopted a new policy of reducing reliance on the Delta for water supply uses, the need for greater outflow and reduced exports has been acknowledged – but not achieved. In 2013, the State Board is required to develop flow criteria that will fully protect public trust resources in the Delta. In all these years, no information has been developed that would contradict the Board's 1992 draft finding that maximum Delta pumping in wet years should not exceed 2.65 million acre-feet in order to provide the necessary outflows to protect fish and the Bay-Delta ecosystems. The rebuttable presumption, consistent with the evidence of the last two decades and with the new state policy to reduce Delta water supply reliance, is that a total export number of no more than 3 million acre-feet in all water year types is prudent.

The current approach of managing the Delta for water supply will almost certainly lead to intense pressures to make increased exports the major goal of a Peripheral Canal or tunnel while the health of the Delta will be a lower priority. The purpose of this plan is clearly to decrease the

physical vulnerability and increase the predictability of Delta supplies, not to increase average annual Delta exports.

Recent letters from the EPA and the Bureau of Reclamation indicate that the EPA believes that the (BDCP) EIS/EIR will need to include a significant analysis of alternatives reflecting reduced Delta inflow and reduced exports[1] and that a significant increase in exports out of the Delta is inconsistent with recent state legislation (to reduce reliance on the Delta). [2]

Reduced dependence on the Delta by south-of-Delta water users would also obviate the need for new conveyance around or through the Delta (a Peripheral Canal or tunnel) and new surface storage reservoirs, avoiding costs of perhaps tens of billions of dollars for taxpayers and the potential for stranded assets resulting from climate change and sea level rise in the Bay-Delta. This reorientation will undoubtedly require some south-of-Delta infrastructure enhancements, but not nearly to the magnitude of costs for a Peripheral Canal and a new reservoir north of the Delta.

Provide Public Trust Protections And Thorough Economic And Sociological Analyses Of Reasonable Alternatives To Various Export Levels.

The California Supreme Court, in the Mono Lake decision, explicitly set forth the state's "affirmative duty to take the public trust into account in the planning and allocation of water resources and to protect public trust uses whenever feasible." Planning and allocation of limited and oversubscribed resources imply analysis and balancing of competing demands. So far we find little effort to balance the public trust obligations and resolve competing demands within the current planning processes (BDCP).

One of the significant flaws of previous and unsuccessful Bay-Delta proceedings has been the absence of a comprehensive economic evaluation of the benefits of protecting the estuary and in-Delta beneficial uses compared to the benefits of diverting and exporting water from the estuary. This absence has deprived decision makers and the public of critical information fundamental to reaching informed and difficult decisions on balancing competing demands.

Beyond protecting California's common property right in public trust resources, the balancing of limited water supplies must address the relative economic value of competing interests. For example, what is the societal value in providing Kern County, comprising a fraction of one percent of the state's population and economy, the same quantity of Delta water as the South Coast, with half the state's population and economy? What is the value to society of using public subsidies to irrigate impaired lands to benefit some 600 landowners, and that, by the nature of being irrigated, discharge harmful quantities of toxic waste that impairs other beneficial uses? What is the economic value of using twice the amount of water to irrigate an orchard in the

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[1] http://www.epa.gov/region9/water/watershed/sfbaydelta/pdf/EPA_Comments_BDCP_3rdNO_051409.pdf

[2] http://www.epa.gov/region9/water/watershed/sfbay-delta/pdf/EpaR9CommentsBdcpPurpStmt6-10-2010.pdf

desert than is required elsewhere? What are the costs and benefits of reclamation, reuse, conservation, and development of local sources? The preceding are only examples of the difficult questions that must be addressed in any allocation of limited resources and balancing of the public trust. Economic analysis is crucial to providing the insight and guidance that will enable and Delta plan to meet its mandate. Without such analysis, we do not believe the a Delta plan can successfully or legally comply with its legislative and constitutional obligations.

Keep Water Transfers Within The Revised Delta Export Limits.

Water transfers through the Sacramento-San Joaquin Delta – which include individual water sales transactions, Article 21 State Water Project pumping and the pumping of the Central Valley and the State Water Projects' contracts – play a significant role in the movement and transfer of water throughout the state and have significant impacts on the ecology of the Delta. The two latter projects provide the largest percentage of transfers through the Delta while water sales and Article 21 pumping in some years is significant.

A new paradigm is required that would simultaneously reduce the transfer pumping through the Delta to a level that maintains a healthy ecosystem while providing more logical and reliable sources of water for south-of-Delta water users. Instead of continuing to move extraordinary amounts of water through the Delta – with its impacts on fish and wildlife species, water quality, ecosystem conditions, and flow volumes and directions – south-of-Delta water users could obtain significant amounts of water from localized south-of-Delta sources in the San Joaquin Valley region. This type of move toward regional self-sufficiency has been a large component of the two most recent State Water Plans (Bulletin 160).

A more favorable scenario than the present excessive north-to-south Delta pumping consists of the following changes in supply orientation:

- San Joaquin Valley water users could be reoriented to providing southern Sierra water to south-of-Delta water users through new interties with existing infrastructure. This is especially true for the movement of agricultural water from the east side of the San Joaquin Valley – where agricultural water use is relatively inefficient – to west side agriculture where the water use is much more efficient. If east side agriculture could obtain the same levels of efficiency as west side farmers, the amounts of water saved and available for transfer to the west side would be significant. Although politically difficult, this is an elegantly simple and effective solution for south-of-Delta agriculture users and for all of California.
- Supplies for the Metropolitan Water District and other south-of- Delta users could be sourced from the natural reservoir that is Tulare Lake by allowing flows from the Kern, Kings, Kaweah and Tule Rivers to flow into the Tulare basin. This option is being advocated by the San Joaquin Valley Leadership Forum, which has determined that surface storage capacity in the Tulare Lake Basin could be more than 2.5 million acre-

feet. This option may require a new Kern-San Joaquin intertie. Reorienting water transfer policies to benefit south-of-Delta water users will require further detailed analysis to confirm its feasibility; however, the potential for these measures to comply with the state requirement to reduce reliance on the Delta to the level recommended above deserves serious consideration.

A Water Transfer Matrix and a set of Water Transfer Principles are included in the referenced EWC report *California Water Solutions Now*.

Maximize Use Of Existing Delta Facilities And Install Improved Fish Screens At Existing Delta Pumps.

The EWC supports the development and implementation of significantly improved fish screens at the Delta pumps, in keeping with original CALFED plans, and at other existing in-Delta diversions.

Maximize Regional Self-Sufficiency In Accordance With The 2009 Delta Reform Act And Expand Statewide Water Efficiency And Demand Reduction Programs Beyond The Current 20/20 Program.

Recommendations to the Delta Stewardship Council included an aggressive urban water conservation and efficiency program – more aggressive and of longer duration than the 20/20 program – and included both urban and agricultural users as a necessary component for reducing reliance on the Delta and achieving the water supply reliability goals for south-of-Delta users. A more aggressive conservation program also supports the goal of the reduced exports level of this alternative. We intend to continue our advocacy for this type of program with the Delta Stewardship Council.

Provide Financial Incentives For Specific Agricultural Irrigation Efficiencies South Of The Bay Delta.

In order to encourage agricultural water efficiency actions, especially on the east side of the San Joaquin Valley, financial incentives that encourage the use of more efficient equipment or farming practices should be offered as a part of the plan, since they would be a conservation measure within the context of this plan.

Water efficiencies and water demand reduction are a key part of this "Reduced Exports" alternative. They can have a direct impact on reducing demand and reliance on the Delta and should be aggressively pursued as a part of this plan.

Eliminate Irrigation Water On Drainage-Impaired Farmlands Below The Bay Delta.

Since the late 1960s and 1970s, the State Water Project and Central Valley Project have been supplying water to approximately 1.3 million acres of drainage impaired land on the west side of the San Joaquin Valley; this is a clear violation of the State Constitution's prohibition against unreasonable use of the state's water. Eliminating or reducing the irrigation of this land would save up to 2 million acre-feet of water in most years.

Farmers and water districts throughout the Western San Joaquin Valley try to reduce their drainage water. However, retiring these lands from irrigated agriculture remains by far the most cost-effective and reliable method to eliminate harmful drainage discharges to water bodies and aquifers. The Westlands Water District has already retired 100,000 acres; a recent federal report discusses an option to retire 300,000 acres of drainage-impaired lands. Any long-term solution to the west side's drainage problem must be centered on larger-scale land retirement, complemented by selective groundwater pumping, improved irrigation practices, and application of new technologies where appropriate. Any approach that is not founded on land retirement will ultimately continue to store and concentrate selenium and salts in the shallow aquifers, where they may be mobilized by flood events or groundwater transport.

Taking much of these "badlands" out of production would reduce demand for Delta water diversions and significantly improve water quality in the San Joaquin River. A planned program of land retirement and other drainage volume reduction actions should also provide for mitigation for impacts to the farm labor community. Even if irrigation deliveries continue, these lands will ultimately go out of production because of drainage impairment, as pointed out in the federal "Rainbow Report."

Reinforce Core Levees Above PL84-99 Standards.

This plan accepts and supports the Delta Protection Commission's recommendation in their Economic Sustainability Plan to: "Improve many core Delta Levees beyond the PL 84-99 standard that addresses earthquake and sea-level rise risks, improve flood fighting and emergency response, and allow for vegetation on the water side of levees to improve habitat. Improvement of most core Delta levees to this higher standard would cost between $2 to $5 billion.

There is a plausible public interest in providing public funds to Delta reclamation districts and other Delta interests for levee upgrades since the Delta serves as the water conveyance facility for much of California. Water exporters should be required to identify which levees, if any, ***they want to fund to a higher standard*** (for example more earthquake resistant) to protect their water supply, beyond the current standards. Recommendations should also include assisting Delta counties and communities in meeting FEMA/NFIP programs. The plan should also contain a

recommendation to support and increase public funding for permanent continuation of existing and highly successful statutory cost-share formula and funding for Delta (Subventions) Levee Program. Public safety and flood protection must remain the top priority of the State Plan of Flood Control, including its levees and bypasses. The levees should be vegetated with native species to help stabilize the levees and support endangered species.

Because earthquake risks to the levees are one of the main justifications for a Peripheral Canal or Tunnel in the Delta, and there is evidence that the earthquake risks to the Delta levees may have been exaggerated in previous drafts of the Economic Sustainability Plan, the comparison of costs of the two alternatives ($2 to $5 billion for levee strengthening versus $15-$16 billion for new conveyance) is significant and should be incentive enough to immediately initiate this levee reinforcement program and make catastrophic levee failure a questionable justification for new conveyance.

Restore Delta Estuary and Riverine Habitats.

In keeping with the Legislature which has expressly declared that *permanent protection* of the Delta's natural and scenic resources is the *paramount* concern to present and future residents of the state and nation, habitat restoration projects should be aimed at public lands as a first priority. Habitat restoration projects must consider connectivity between areas to be restored and existing habitat areas needed for the full life cycle of species targeted to benefit from the restoration project. Where feasible, restoration should be accomplished along with levee reinforcement and where possible, restoration projects should emphasize the potential for water quality improvement. Restoration projects should also incorporate input from effected Delta landowners.

Priorities for restoration should include the following areas, since they would meet most of the criteria described above:

- Cache Slough Complex
- Cosumnes River–Mokelumne River Confluence
- Lower San Joaquin River Floodplain
- Suisun Marsh
- Yolo Bypass

Although the EWC has not estimated the amount of acreage that would be involved in the priority areas, our estimate would be well below the more than 100,000 acres called for in the BDCP plan. That plan is impractical from the viewpoint of costs and from the opposition it will engender among residents and landowners in the Delta. Any resulting plans would need to heavily involve residents of the Delta, something that has not been accomplished to date.

Return The Kern Water Bank To State Control, Restore Article 18 Urban Preference, And Restore The Original Intent Of Article 21 Surplus Water In SWP Contracts.

The Monterey Amendments changed significant provisions of the original State Water Project and, as an unintended consequence, increased pressure for exports from the Delta and increased pumping beyond healthy limits. The changes that caused these conditions were: the elimination of Article 18a, the "Urban Preference;" the elimination of Article 18b, the "Paper Water" safeguard; the change of orientation for Article 21 "surplus water;" and the privatization of the Kern Water Bank.

As a part of this plan, the following changes should be made in order to reduce reliance on the Delta, to assure Public Trust protections for a public resource, and to provide greater reliance for urban water users in the state's largest population centers.

- The "urban preference," that was eliminated as a component of State Water Project contracts due to the Monterey Amendments, must be reinstated. California should return to its original plan of giving priority to the water needs of its bourgeoning population rather than giving farm water equal priority, per the Monterey Amendments changes.
- The contracted amounts of water for CVP and SWP Table A users are unrealistically high and must be brought in line with historic "firm yield" experience, as required in the contracts. The overall water supply reductions forecasted with global climate change adds to the urgency to bring these contracted amounts in line with current realities and for future planning.
- The pumping of "Article 21" water is unnecessary and has proven to be damaging to the fisheries and ecology of the estuary. In reviewing the different types of water transfers that can occur throughout the state, some are more logical and favorable from an ecosystem and cost viewpoint, while others are clearly damaging by the same two criteria.
- The Kern Water Bank – initially a public asset – has been inappropriately turned over to private interests as a part of the Monterey Amendments and must be reestablished as a state entity under the ownership and operational control of the Department of Water Resources (DWR) for the benefit of all Californians, as it was when DWR purchased the land for the bank in the 1980s. When combined with the reinstatement of the urban preference in the State Water Project, this change would enhance water supply reliability for urban southern California users and would eliminate profiteering from the public's water by private corporate interests.

Conduct Feasibility Study For Tulare Basin Water Storage.

Supplies for south-of- Delta users and the Metropolitan Water District could be sourced from the natural reservoir that is Tulare Lake by allowing flows from the Kern, Kings, Kaweah, and Tule Rivers to flow into the Tulare basin. This option is being advocated by the San Joaquin Valley

Leadership Forum, which has determined that surface storage capacity in the Tulare Lake Basin could be more than 2.5 million acre-feet. It may require a new Kern-San Joaquin intertie. This option should be evaluated as part of this "Reduced Exports" plan.

Restore Water Quality In The Bay Delta And In Impaired Rivers.

California's Porter-Cologne Act of 1969 and the 1972 federal Clean Water Act both were enacted with the goal of restoring the quality of our water resources. These resources have been seriously degraded by over a century of heavy industry and agriculture, the indiscriminate extraction of natural resources, and the continued discharge of inadequately treated sewage. Progress in reversing this degradation has been slow. While upgrades to wastewater treatment and discharge requirements for industrial polluters have improved water quality in many areas, the fact remains that almost 700 reaches of California waterways are still unable to support beneficial uses, including providing potable water supply and supporting ecosystem health.

These problems have contributed to ecosystem crashes in San Joaquin Valley rivers and the Delta, severe groundwater contamination in the San Joaquin Valley and Central Coast that impacts low-income rural communities, and ocean pollution. Though state and federal laws already give regulators ample powers to improve water quality, this authority has not been exercised sufficiently to protect the health of the state's waterways or its residents.

Diverting Sacramento River flows for export without significantly increasing the amount of fresh water flow dedicated to reaching San Francisco Bay, as currently planned for BDCP, will only degrade water quality and habitat conditions and aggravate the negative impact on Delta smelt, salmonid, and other native fish populations. On the other hand, a future scenario that places less emphasis on the Delta as a water supplier and allows more water to be left instream, can dramatically reduce the environmental and water quality effects of exporting water – whether through or around the Delta. Although increasing flows, as described in this "Reduced Exports" alternative, will improve many aspects of Delta water quality, this plan must continue to pursue specific and targeted water quality actions in order to contribute to restoring the health of the Delta.

Monitor And Report Groundwater Usage, Statewide.

Environmental organizations are generally disappointed with the groundwater monitoring features that were built into the Delta Reform Act of 2009. Earlier drafts of the 2009 legislation required groundwater monitoring and reporting throughout the state, while the final legislation was weakened to make groundwater reporting a voluntary effort. Since groundwater represents 30% of California's water supply in most years, the state must face this politically difficult situation with actions for mandatory groundwater reporting throughout the state.

This action needs to include a discussion of the Water Code's requirement for additional South-of-Delta underground storage, and the ability to meet that requirement through public control and expansion of the Kern Water Bank. The impacts of the additional capacity for Delta exports as provided by a public Kern Water Bank should be considered here. Given its location, size, and relative cost of development compared to surface storage, the Kern Water Bank is a facility which could greatly assist balanced export controls for the Delta and could be the single greatest improvement to overall state-wide water supply reliability. This plan strongly advocates for the return of the Kern Water Bank to state control as a water management conservation measure.

Provide Fish Passage Above And Below Central Valley Rim Dams For Species Of Concern.

Dams have made California a well-watered paradise for most of its human inhabitants. Dams are also killers of river habitats. Although California's vast system of water storage, hydropower and flood control dams has provided enormous economic benefits, it is not without downsides. Dams have been a major factor - in many cases the major factor - in the decline and extinction of numerous fish species, especially anadromous fishes that migrate to and from the ocean and must have access to the more favorable upper reaches of rivers to spawn and rear the next generation. Every salmon and steelhead run in Central Valley rivers is either extinct, endangered, or in decline due to the overall habitat destruction and degradation caused by dams. A 1985 California Department of Fish and Game study has indicated that the economic losses due to the declines of salmon, steelhead and striped bass which spawn in the Central Valley tributaries at $116,000,000 per year.

The most serious fishery problem caused by major dams is the blockage of migratory fish passage. Over 95 percent of the historic salmon and steelhead spawning habitat in Central Valley river systems has been eliminated by the construction of large dams on every major river. Fish passage was not a serious consideration in the early part of the last century when most of the major dams were built; there were no Endangered Species Act or National Environmental Policy Act considerations at the time. California Fish and Game Code Section 5937, which mandates that dam operators keep fish in good condition below dams has largely been ignored outside the Mono Basin. The construction of Friant Dam on the San Joaquin River resulted in the extinction of the largest spring-run chinook population in the state. The dam blocked upstream spawning grounds that were known to be the best of the Central Valley rivers.

There are numerous solutions available that can provide fish passage around dams. They include construction of fish ladders or upstream fish channels, fish elevators, trap and truck operations, downstream bypasses, removal of smaller fish barriers, and dam removal. All of these techniques have been used at multiple locations with varying success rates. Some of the larger dams on the Columbia River system have been operating fish ladders for many years. While the costs of many of the techniques are substantial, the economics of industries and recreational activities that depend on healthy rivers and fish stocks can justify the investment. The appropriate

comparison by which to measure such costs is the sum of agricultural, industrial, and municipal benefits that accrue via the diversion of tens of millions of acre-feet of water annually. Tourism and recreation is now California's largest industry at more than $96 billion annually, and river recreation is a large part of that industry. Recreational fishing generates $1.5 billion annually in retail sales and provides thousands of jobs.

An important aspect of fish passage above dams is the benefits to Native American Tribes in gaining access to historic cultural resources. These would include: the Winnemen Wintu on the Upper Sacramento, McCloud, and Pit Rivers; the Karuk Tribe on the Klamath; and the California Valley Miwok and Maidu on the American and Feather Rivers.

This plan supports, as a conservation measure, the National Marine Fisheries Service Biological Opinion on CVP and SWP operations that recommends fish passage pilot program plans and analysis for dams connected to the Delta, such as the Sacramento, American and Stanislaus rivers. This plan also encourages the State Water Board to direct the controlling agency of each Central Valley rim dam connected to the Delta to study the feasibility of fish passage for each dam that blocks the passage of listed salmonid species, similar to the NMFS Biological Opinion. Costs should be borne by the dam operators since they are the main beneficiaries of the water storage operations.

Retain Cold Water For Fish In Reservoirs.

Salmon, steelhead, and trout need cold water for their existence. As California has grown in size, the dams that have been built on virtually every major river have significantly changed both upstream and downstream river flows; high downstream water temperatures are one of the damaging results. Temperatures of 57-67 degrees Fahrenheit (F) are typically ideal for upstream fish migration and 42-56 degrees (F) are ideal for spawning. Water temperatures over 70 degrees (F) can be lethal to anadromous fish but are common on major rivers in the summer. Some fish populations have been able to adapt and carry on spawning and rearing below these major barriers, though in much smaller numbers than previously. Because farms need the most water in the summer, water behind reservoirs is low by the fall when many of the remaining populations of migrating fish return to the rivers. At that point the lack of cold water is a clear threat to their survival. Many of these fish species are now listed under the federal Endangered Species Act (ESA), and maintaining water temperatures suitable for survival has become a critical part of the actions required under the ESA.

This plan supports, as a conservation measure, the NMFS Biological Opinion recommendations for cold water releases on rivers connected to the Delta, such as the Sacramento, American, and Stanislaus rivers as well as support regulations and legislation to retain sufficient water in other major reservoirs to support fish populations in Delta-connected rivers below dams.

Integrate Floodplains With Rivers.

Floodplains benefit the people of California in numerous ways. Floodplains are extremely productive ecosystems that support high levels of biodiversity and provide valuable ecosystem services.[60] Studies have shown that healthy floodplains can have an extremely high monetary value due to these ecosystem services, which include flood attenuation, fisheries habitat, groundwater recharge, water filtration, and recreation. However, to function properly, floodplains must, by definition, periodically flood.

The extent of functional floodplains in California has been dramatically reduced from historical conditions because levees, dams, flood control projects, and development have reduced or eliminated connectivity between rivers and floodplains. To reverse these losses, numerous agencies and organizations have spent significant resources to restore floodplains while simultaneously minimizing future flood risk.

With climate change, we can expect to have less snowpack, quicker spring snow melts and increased flood pressures. Establishing natural floodplains connected with our rivers and avoiding development in floodplains will become more critical to community sustainability in the future.

The current restoration plans for the Yolo Bypass and similar conservation actions are encouraged as a part of this plan.

The following actions need to be included with any planned floodplain restoration:

- Where possible, remove or at least set levees back from riverbanks to allow for floodwaters to expand into the floodplain.
- Where it is not possible to remove levees, they should at least be vegetated with native riparian vegetation to provide the maximum achievable ecosystems functions.
- Make the purchase of floodplains or flowage easements a top priority for flood control agencies and prevent new levees from being constructed and development in floodplains.
- Ensure that low-income communities impacted by floodplain restoration are involved in the development of restoration plans, and that any impacts of restoration are fully mitigated.

Fund Agencies With User Fees.

Agencies that benefit from any new conveyance facilities should pay the full cost of the facilities, including mitigation costs.

Costs of fixing the Delta that are related to existing and planned water delivery systems, including related costs of environmental mitigation and restoration, should be financed by the agencies that deliver water and ultimately should be passed on to their retail customers.

Cost responsibilities for land acquisition and restoration of river and Delta floodplains should be distributed 75 percent through a broad-based water use fee (applied to all agencies whose supplies are diverted from a river or the Delta watershed.) and 25 percent through public funds.

Agencies that divert water from the Delta should pay their fair share of maintaining and replacing the Delta levees on which they depend and for protecting water conveyance facilities. The share of Delta levee repair costs assigned to these agencies should reflect the extent to which the levee repairs are essential to ensuring uninterrupted diversions.

In developing funding sources, special care should be taken that low income communities not be impacted by new fees and second, that appropriate set-asides be created to ensure that these communities can access funding needed to comply with new regulations and policies.