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February 4, 2013

Professor David Sunding  
University of California, Berkeley  
and

VIA Email

[BDCP.comments@resources.ca.gov](mailto:BDCP.comments@resources.ca.gov)

VIA Email

Re: Comments on Scope of Work for Activities Related to Measuring the Benefits and Costs of the Bay Delta Conservation Plan (BDCP)

Dear Professor Sunding and BDCP Lead, Deputy Director Meral, Department of Water Resources:

Friends of the River is concerned about the BDCP process given our role over the past 40 years to protect and restore California's rivers. As a long-time advocate of reducing Delta exports, the California Water Impact Network (C-WIN) is concerned about the very poor job being conducted on the BDCP Benefits/Cost analyses. We have reviewed the scope of work and amended scope of work documents on the BDCP web site pertaining to the proposed benefit cost study. In addition, we attended the January 23, 2013 BDCP Finance Committee Meeting. What follows are some comments we have on the presently anticipated scope of work. Any errors in attributing or reciting the substance of statements at the meeting are unintentional and represent the best we can do based upon our notes and recollections. The persons and organizations in attendance at the referenced meeting were advised to submit comments on the anticipated scope of work to Professor Sunding and/or the BDCP web site by February 6, 2013. It was represented at the meeting that all such comments would be posted on the website. We request that these comments be so posted.

### ***Failure to Evaluate Reasonable Alternatives***

Professor Sunding announced at the meeting that only two alternatives would be considered for the study— with BDCP, and without BDCP. Several of us raised concerns about that approach and professor Sunding asked Deputy Director Meral if he could consider other alternatives. Attempting to translate the sentences spoken it appeared that Deputy Director Meral responded “no”. Later in the meeting, professor Jeffrey Michael, Director of the Business Forecasting Center, University of the Pacific, stated in so many words that assessment of alternatives is a standard part of benefit cost study and it sounded like professor Sunding agreed with that.

Analysis of only one alternative, the no project alternative, is calculated to skew the study. The most basic issue is whether or not to develop massive new upstream from the Delta conveyance capacity for the exporters. There are reasonable alternatives to new upstream conveyance that would include positive features other than just “no BDCP.” As just one example groups have presented information on strengthening Delta levees at far less cost than the Delta Tunnels to reduce seismic risk. Developing and considering positive alternatives minus the Delta Tunnels would allow eliminating factors that the exporters and DWR are misusing to skew the analysis. The example here being that including true alternatives, not just the “no project” alternative, allows the proper and correct elimination or vast reduction in the claimed benefit of “reduced seismic risks to state and federal projects” (scope of work document). That is because an obvious alternative Plan minus the Delta Tunnels could and would include far less costly levee strengthening as opposed to expensive \$14 or \$11 billion 35 mile long Tunnels as a means to reduce seismic risks.

Seismic risk is just one example of how foreclosing analysis of alternatives skews the study. There are many other ways in which foreclosing analysis of alternatives skews the study. The study must include a range of reasonable alternatives and not just “without BDCP”.

### ***The Cumulative “Double Whammy” on the Delta resulting from Sea Level Rise plus Massive New Diversions Upstream for the Exporters Renders the Scope of Work Outdated***

The draft Delta Plan was issued November 30, 2012 by the Delta Stewardship Council. A portion of the Delta Plan admits that “A portion of the water flowing into the Delta is specifically allocated to Delta outflow to help repel salinity intrusion from the San Francisco Bay and to maintain low salinity water near the western edge of the Delta. This means that water that might otherwise be used for exports must be released from upstream reservoirs to help control salinity (NRC 2012).” (Delta Plan, 91). (All number references are to page numbers unless otherwise indicated). The Delta Plan admits that as a result of climate change “Sea level rise, as much as 55” by 2100 (OPC 2011), will result in high salinity levels in the Delta *interior*, which will impair water quality for agricultural and municipal uses and change habitat for fish species. Maintaining freshwater conditions in the Delta could require unanticipated releases of water from storage, which will reduce available water supplies for fish.” (Delta Plan, 80)(Emphasis added). The combination of sea level rise plus massive new diversions whether 15,000 cfs or 9000 cfs upstream from the Delta would amount to a “double whammy” on the Delta.

The scope of work subject “increased salinity and urban water treatment in the west Delta” is out of date in noting that “salinity levels may increase in Suisun Marsh and the *west* Delta.” According to the Delta Plan, there will be high salinity levels in the *Delta interior*. The Delta Tunnels would multiply that effect by diverting massive quantities of water upstream from the Delta. Professor Sunding seemed to respond at the meeting to this issue when it was brought up by saying something like what might happen by 2100 would not be a concern and the study will only go out to about 2050. It may be that DWR and the exporters accept that huge increases in salinity in the Delta resulting from the combined effects of massive new upstream diversions together with sea level rise will in the long run turn the Delta into a polluted and salty wasteland. However, enormous future costs to the Delta need to be disclosed, not concealed, in the benefit cost study.

Increasing salinity is not the only adverse impact on the Delta that would result from massive new diversions upstream for the exporters. The Delta Plan admits that there have been adverse impacts resulting from reducing the flushing of San Francisco Bay by Delta outflows. (Delta Plan, 84). Studies show that with increasing diversions, “the historical flushing of the Delta with freshwater is no longer occurring. This lack of flushing can also allow waste from urban and agricultural development upstream of and within the Delta to accumulate. Contaminants and toxics have been identified as factors in the decline of the Delta ecosystem. (Baxter, et al. 2007).” (Historical Fresh Water and Salinity Conditions in the Western Sacramento-San Joaquin Delta and/Suisun Bay, Water Resources Department, 41, Contra Costa Water District, February 2010, technical memorandum WR 10-001). New upstream diversions for the exporters will further lessen the already declining flushing of the Delta and Bay.

We are also concerned about inconsistency. The Delta Tunnels would be a long-range project, not expected to be operational before about 2026. Since any “benefits” from the Delta Tunnels would not be experienced until far into the future, it would appear appropriate to also fully consider long-range costs ranging up to virtually complete degradation of Delta water quality by way of increasing salinity and pollution and further reduction or elimination of already seriously endangered fish species.

### ***Skewing the Benefit Cost Analysis***

#### ***(a) Habitat Values***

One scope of work document refers to “habitat values and bio diversity”, while another refers to “ public benefits of Delta conservation and restoration.” Our understanding is that all that the exporters would pay for would be the Delta Tunnels and the intakes. Our understanding is that virtually everything else would be paid for by the public through a bond measure that was pulled from the ballot by the Legislature in 2010 and 2012 because of fears it would not pass, and is now proposed to be on the ballot in 2014. The proposed analysis appears designed to confuse the fact that only some would benefit from the new conveyance and increased exports while many of the costs would be borne by the general public. Increases in habitat can be provided without the Delta Tunnels. This issue is related to the failure to evaluate reasonable alternatives discussed above. There is no legitimate reason to include an increase in Delta habitat or species resulting from expenditures for environmental restoration as being a favorable benefit of the Delta Tunnels project. Habitat can be increased through other positive alternatives that

simply leave out the Delta Tunnels. Again, this appears to be a transparent effort driven by the exporters and DWR to skew the analysis in an attempt to falsely create a favorable benefit cost result for the Delta Tunnels.

***(b) Greenhouse gas benefits***

The amended scope of work document refers to “greenhouse gas benefits” from taking Delta lands out of production and this subject was also discussed at the meeting. In response to questioning, it was stated at the meeting that the benefits of taking exporter agricultural lands out of production including those in Westlands would not be considered. This omission will skew the study because on the one hand it will look at the greenhouse gas benefit of retiring agricultural land when analyzing the conservation measures but will ignore the same benefit that would occur if exporters retired a portion of their agricultural land.. In addition to greenhouse gas benefits resulting from taking certain exporter agricultural lands out of production, there would also be a great benefit to the Delta because certain of the exporter agricultural lands result in extensive selenium pollution that is carried downstream. Moreover, taking those lands out of production would reduce exporter demands for water.

***(c) Reduced soil erosion***

The announced scope also seeks to skew the study by counting as a benefit “providing a buffer that reduces erosion and the flow of sediment into waterways.” Historically, sediment has created in delta areas the greatest agricultural areas known to humankind. The long term loss of sediment should be evaluated as a cost, not a benefit. An expert pointed out at the meeting that reducing sedimentation is a cost, not a benefit.

***(d) Salinity***

The study includes the value of salinity reductions to the exporters’ urban water consumers. In other words, the exporters would gain the benefit of diverting massive quantities of freshwater upstream from the Delta so as to no longer share in the burden of increasing salinity in the Delta while those same diversions would further exacerbate the already worsening salinity intrusion into the Delta. The exporters are junior water rights holders who would create a situation in which the senior water rights holders in the Delta would have their water quality degraded as a result of actions by the junior exporters. At minimum, the study needs to value the cost of increased salinity to consumers in the Delta at least as highly as it is valuing the benefit of decreased salinity to consumers under the “model developed by MWD and the Bureau of Reclamation (Reclamation).” (Scope of Work).

***(e) Water quality***

Of course wetlands provide water quality improvements from filtering and purification. The Delta Tunnels, however, are not necessary to increase the amount of wetlands in the Delta.

Professor Michael explained in the meeting that the focus of the benefit cost study should be on the water supply system and that there is no valid reason to include such other matters as reduction of seismic risk, habitat values, greenhouse gas reductions and so forth, because these

changes can all be accomplished by way of alternatives that do not include the Delta Tunnels. The only thing inclusion of these subjects coupled with exclusion of analysis of other alternatives accomplishes is to misrepresent the Delta Tunnels alternative as having a more favorable benefit cost outcome than it actually does. It appears that all the scope of work is attempting to accomplish is to produce a skewed study to challenge the conclusions of Professor Michael's Eberhardt School of Business Forecasting Center, University of the Pacific, *Benefit Cost Analysis of Delta Water Conveyance Tunnels* (July 12, 2012). That study concluded that the costs of the Delta Tunnels would be 2.5 times higher than the benefits, so that the project does not make economic or financial sense.

### ***Failure to Evaluate Adverse Aesthetic Impacts of the Massive Intake structures***

Professor Michael established that the study is not going to consider the adverse aesthetic impacts of the massive intake structures. That is an astonishing omission. The levee roads along the river are already used by motorists and bicyclists to enjoy the scenic beauty of the River. This omission would be similar to planning to dam Yosemite Valley without considering in the benefit cost analysis the adverse aesthetic impacts of submerging the valley. The intakes would be massive eyesores in what is presently a beautiful, serene, pastoral region. The adverse aesthetic impacts of destroying the scenic beauty of the area must be part of any legitimate benefit cost study.

The State is in the process right now of completing the replacement of the portion of the San Francisco-Oakland Bay Bridge between Oakland and Yerba Buena Island. That project, originally projected to cost under \$1 billion, is instead costing over \$6 billion. One major factor in the increase was expensive changes and alterations to the original design of the replacement bridge structure to develop a more pleasing *aesthetic* appearance. The State places a huge dollar value on *aesthetics* with respect to some projects in some locations for some people. That being the case, a dollar value needs to be developed and placed on the scarring of the presently beautiful, serene, pastoral area on the Sacramento River where the intakes would be a massive visual blight for all persons recreating, traveling and experiencing scenery whether by boat, car, or bicycle between Sacramento and the Delta. Moreover, the social and economic factors involved in this visual blight to be created need to be considered. Many people in the Sacramento, Stockton and Antioch areas cannot afford to travel to more distant locations to experience scenic beauty or given the demands of jobs and families do not have the time to do so. The scenic beauty afforded by the Sacramento River in its present state without the visual blight from the massive intakes for the Delta Tunnels is an extremely valuable, yet close and affordable scenic and recreational resource for several million people. The aesthetic degradation needs to be included in the scope of work.

### ***Intakes will Run at High Levels***

In response to a stated presumption by a person at the meeting that there would not be significant diversions when water levels are low, professor Sunding stated that from the modeling he has seen, the intakes will be operating at very high levels. Professor Sunding's candor on this point is appreciated. It appears, however, that in the BDCP environmental analysis, the diversions have been characterized as operating at much lower levels. Accordingly, it is critically important that the modeling professor Sunding has seen be disclosed now to the

public in terms that the general public can interpret and understand. In keeping this information from the public, the BDCP process is violating the environmental full disclosure purposes of NEPA and CEQA. There is a very real potential for carrying out what amounts to a fraud upon the public in terms of the environmental analysis claim as reflected in the Delta Plan proposed Regulations “to optimize diversions in wet years when more water is available and conflicts with the ecosystem less likely, and limit diversions in dry years when conflicts with the ecosystem are more likely.” (Proposed Regulations § 5001(e)(1)(C)). It sounds like there is on the one hand modeling for purposes of the benefit cost analysis showing that the intakes will take a lot of water, thus constituting a benefit for the exporters, while on the other hand the amount of water to be taken is minimized for purposes of the environmental analysis.

***The Delta Tunnels Concept is Outdated and the Project may Become an Infamous White Elephant for Several Different reasons***

***(a) Changing Technology and Conservation Efforts make the Delta Tunnels Concept Outdated***

The Delta Tunnels project is a product of 1950s, 1960s and 1970s thinking. The project is a resurrection of the “peripheral canal” that the State was going ahead with until stopped by the successful referendum against it in June 1982. A lot has changed in the 30 years since then and there will be more changes over the next 30 years. Innovative thinkers know better than to embrace a “build now, think later” approach. A modern concept of reducing exports instead of developing new conveyance is Environmental Water Caucus Alternative 2 in the Delta Plan process. As another example, a group of conservation and business organizations including the Natural Resources Defense Council, with the written support of San Diego, the San Diego County Water Authority and other urban water agencies proposed an alternative of a much smaller conveyance facility on January 16, 2013. Developments cited in support of the proposed alternative include dramatically increasing local water recycling and conservation, reinforcing Delta levees, improving cooperation among water agencies to maximize the benefits of water recycling and groundwater management to provide new water supplies and lower costs, and developing new water storage south of the Delta. One of the statements in the official Release for the alternative is “The many potential benefits of these investments include more water at a lower cost in comparison with the current draft BDCP plan, a healthier environment, thousands of new jobs in the communities that would pay the majority of costs, greater likelihood of permitting from regulators, greater potential to attract funding partners and reduce pressure for public funding, faster water supply benefits; more local control of water supply, and less reliance on imported water.” (Natural Resources Defense Council release January 16, 2013).

Thus a number of urban water agencies have determined that other alternatives including dramatic increases in local water recycling and conservation are preferable, can be instituted sooner, and cost less than the massive Delta Tunnels. A study to be produced by a University of California professor should be ahead of the curve, not 30 years behind the curve, as well as behind what a number of urban water agencies already understand. The scope of study needs to be expanded to include analysis to ensure it does not promote a White Elephant that will be obsolete by or before the time it would even become operational or soon after becoming operational. The scope of study also needs to be expanded to consider the benefits and costs

resulting from the massive Delta Tunnels *reducing* the incentive to make dramatic increases in local water recycling and conservation, whereas alternatives not including the massive Delta Tunnels would *increase* the incentive to make dramatic increases in local water recycling and conservation. The scope of study needs to include the “opportunity cost” to account for the fact that ratepayer funds expended for higher rates to pay for the Delta Tunnels would not be available to pay for alternative and less environmentally destructive water supplies such as increases in water recycling and conservation.

***(b) Climate Change and the Endangered Species Act also Raise the Prospect of the Delta Tunnels project Being a classic White Elephant***

There is no discretion under the Endangered Species Act to authorize a project that would jeopardize survival of listed fish or adversely modify critical habitat. *Center for Biological Diversity v. United States Bureau of Land Management (Ruby Pipeline Case)*, 698 F.3d 1101 (9<sup>th</sup> Cir. 2012). Pumping has already been restricted below capacity from the Delta by federal district court orders under the Endangered Species Act. The Recirculated Programmatic Draft EIR (RDEIR) for the Delta Plan admits that the “Revised Project”— anticipated upstream diversions for the exporters under the BDCP plan—would have significant and unavoidable environmental impacts including violation of water quality standards and adverse effects on special status species and habitat. (RDEIR, 24-10). The admitted impacts on biological resources include “substantial adverse effects on sensitive natural communities, including wetlands; substantial adverse effects on special-status species; substantial adverse effects on fish or wildlife species habitat; interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established natural resident or migratory wildlife corridors.” (RDEIR, 24-10).

The situation will worsen because of climate change. The Delta Plan establishes that “Warmer temperatures throughout the state will cause higher evaporation rates, particularly during the hot summer and early fall months, contributing to reduced stream flows, drier soils, reduced groundwater infiltration, higher losses of water from surface reservoirs, increased urban and agricultural demand for irrigation water, and more water needed for ecosystem protection (California Natural Resources Agency 2008).” (Delta Plan, 80). Moreover, recent studies sponsored by the California Climate Change Center, released in support of the 2012 and 2009 California Climate Change Assessments demonstrate that there will be a significant increase in dry and critically dry years by the latter half of this century with a corresponding decrease in wet and above normal years.

Given the admitted adverse impacts on endangered fish species and habitat that new upstream diversions for the exporters would have, along with the worsening situation in terms of climate change reducing future water supplies, there is a real possibility that the Delta Tunnels would in the future not be allowed to operate at all or that operations would be far below the high levels in the modeling professor Sunding has seen. By 2026 when the Delta Tunnels could first begin operations the federal government will be operating under its second or third president after President Obama and the State government will be operating under its second or third governor after Governor Brown. Future administrations will be free to prevent or restrict operations of the Delta Tunnels if they determine that is necessary to protect endangered species

and the environment. Moreover, the federal district courts will also be available to consider relief prohibiting or restricting operations of the Delta Tunnels under the Endangered Species Act regardless of the preferences of future administrations, DWR, or the exporters.

The scope of study needs to be expanded to include the possibility that future developments including climate change and regulatory activities or court actions under the Endangered Species Act might either prohibit the Delta Tunnels from operating at all, or severely reduce under some or all conditions the amount of water allowed to be transported through the Tunnels. The parties paying for the Delta Tunnels might end up having paid for and continuing to pay for a project of little or no economic value. That would be a project that would have great costs but little or no benefits. The benefit cost study also needs to fairly and candidly discuss and disclose the risks of the exporters attempting to transfer the burdens of paying for what would prove to be an unnecessary or little used project--a classic White Elephant-- to the public.

***(c) Future State Water Resources Control Board (SWRCB) Proceedings may also Result in the Delta Tunnels project being a White Elephant***

The Statement of Reasons filed by the Delta Stewardship Council in support of the proposed Delta Plan Regulations includes statements that “The best available science suggests that the currently required flow objectives within and out of the Delta are insufficient to protect the Delta ecosystem. Additionally, uncertainty regarding future flow objectives for the Delta impairs the reliability of water supplies that depend on the Delta or its watershed. The predictability of water exports cannot be improved and the Bay Delta Conservation Plan cannot be implemented without timely State Water Resources Control Board (SWRCB) action to update flow objectives.” (Statement of Reasons, 5-6).

The Delta Plan, citing *National Audubon Society v. Superior Court (Mono Lake case)*, 33 Cal.3d 419 (1983), explains that the State “has an 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.” (Delta Plan, 82). The Delta Plan explains that “the state’s navigable lakes and streams are resources that are held in trust for the public and are to be protected for navigation, commerce, fishing, recreational, ecological, and other public values.” (Delta Plan, 82).

The Delta Plan admits that the original SWP and CVP contracts assumed greater water export quantities than consistently can be delivered. (Delta Plan, 91). A recent workshop conducted by the SWRCB has shown that legitimate claims to water flowing into the Bay Delta exceed the available water supply by more than five times in most years. In the words of the California Supreme Court “[B]ecause the State Water Project had never been fully constructed there is a huge gap between what is promised and what can be delivered, rendering State Water Project entitlements nothing more than hopes, expectations, water futures or as the parties refer to them, paper water. . .” *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 40 Cal.4<sup>th</sup> 412, 430 (2007). Moreover, “these project rights are junior in priority to the rights held by water users in the Delta and within the Delta watershed.” (Delta Plan, 82).



The scope of the benefit cost study must also consider and evaluate the possibility that future SWRCB proceedings determining how much water is actually available, and protecting the Delta under the public trust doctrine, may also sharply reduce or eliminate water available for transport through the Delta Tunnels. Moreover, there is the prospect of water rights adjudications and the exporters are last in line in terms of water rights. That also raises a real prospect of prohibition or curtailment of diversions through the Delta Tunnels. Again, such actions are real possibilities that could render the Delta Tunnels project a White Elephant having great cost but little or no benefit.

***The Statement that “the Proposed Study takes a Statewide Perspective” is Not True as there is no Consideration of Upstream Costs***

The first paragraph in the amendment describing the scope of work states that “The proposed study takes a statewide perspective, and analyzes impacts to various groups whose welfare may be impacted by the Plan.” That statement is simply not true at present. Attempting to maintain freshwater conditions in the Delta in the wake of the massive new diversions upstream for the exporters will likely require releases of water from storage reducing available water supplies for fish. (Delta Plan, 80, 91). The massive new diversions for the Delta Tunnels would thus cause change in storage and releases from upstream reservoirs such as Shasta, Trinity, Oroville, and Folsom, and affect and imperil all provisions already in place designed to maintain cold water storage and minimum flows upstream for fishery and other purposes. Consequently, the Delta Tunnels would affect water availability, environmental conditions, and fisheries throughout the Sacramento River and San Joaquin River watersheds upstream from the Delta. We have seen no mention of these upstream impacts in the draft scope of work. The costs of these upstream impacts must be considered in a “statewide” study.

***Possible Explosion of Costs***

The explosion of costs for the replacement span of the San Francisco-Oakland Bay Bridge between Oakland and Yerba Buena Island was referred to above. Originally projected to be under \$1 billion, the actual costs have turned out to be over \$6 billion. It seems that massive government public works projects tend to cost far more than what the government claims when trying to sell the public on the project. The scope of the benefit cost study must be expanded to include analysis of possible increase or explosion in projected costs of the Delta Tunnels, intakes, and mitigation measures, who would get stuck with the bill, and how payment of the bill could be guaranteed.

***Draft Technical Report Must be made Available to the Public***

The Scope of Work document in section 2 recites that the Draft Technical Report will be submitted for review by DWR, Reclamation, “and the water contractors involved in the BDCP.”

The Draft Technical Report needs to be submitted to the public at the same time it goes to the exporters. Surely, public agencies such as the Sacramento, San Joaquin, and Contra Costa County Boards of Supervisors, cities of Stockton and Sacramento, Delta and Sacramento Valley water users, along with the public including California taxpayers and ratepayers have the same right to see the Draft as the exporters. The BDCP is a public project.

### ***Additional Comments***

We expect a University of California professor to conduct a fair and comprehensive benefit cost study from a statewide perspective including upstream costs as well as the other matters set forth above. The meeting at which professor Sunding outlined the proposed study just took place on January 23, 2013. It was announced that persons and organizations wishing to comment on the proposed scope of work needed to do so by February 6, 2013. That is a mere two weeks. That is not sufficient time to obtain expert economic analysis of the proposed scope of work. There are no doubt many other comments that could be made as to the proposed scope of work that we have had neither the time nor the expertise to make. That is not our fault. That is the fault of DWR in allowing insufficient time and discussion of the scope of work. Professor Sunding needs to ensure that the scope of work will be fair and comprehensive from a statewide perspective.

### **CONCLUSION**

Past California environmental and benefit cost disasters have ranged from endangering Mono Lake to drying up a 60 mile stretch of the once mighty San Joaquin River to the explosion of costs for the San Francisco-Oakland Bay Bridge structure replacement project. Professor Sunding must be on guard to prevent the exporters and DWR from distorting and contorting the benefit cost scope of work to inflict another massive and costly prospective environmental and benefit cost disaster on the public, taxpayers, and ratepayers. Please call Robert Wright at (916) 442-3155x207 if you have any questions.

Sincerely,



E. Robert Wright  
Senior Counsel  
Friends of the River



Carolee Krieger  
Executive Director  
California Water Impact Network