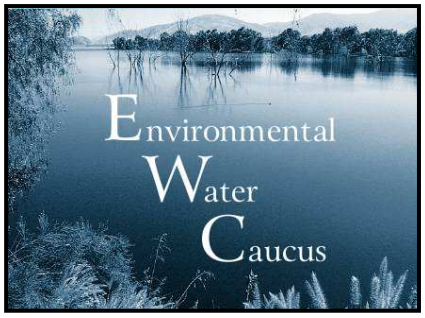

February 6, 2013

Via Email To:
David.Sunding@brattle.com
BDCP.comments@resources.ca.gov

Subject: Comments on Benefit-Cost Analysis for BDCP

The Environmental Water Caucus (EWC) submits the following comments related to the Benefits-Cost Analysis being prepared for the BDCP.

The Analysis Needs Accurate Data on Yields of the Project. We have made previous requests for a Water Availability Analysis to be done as part of BDCP and the Delta Plan. This is a fundamental requirement for an adequate Benefits-Cost Analysis.
We note the requirements in SB 7X1, Section 85320:

> (b) The BDCP shall not be incorporated into the Delta Plan and the public benefits associated with the BDCP shall not be eligible for state funding, unless the BDCP does all of the following:
> (2) Complies with Division 13 (commencing with Section 21000) of the Public Resources Code, including a comprehensive review and analysis of all of the following:
> (A) A reasonable range of flow criteria, rates of diversion, and other operational criteria required to satisfy the criteria for approval of a natural community conservation plan as provided in subdivision (a) of Section 2820 of the Fish and Game Code, and other operational requirements and flows necessary for recovering the Delta ecosystem and restoring fisheries under a reasonable range of hydrologic conditions, which will identify the remaining water available for export and other beneficial uses.
> (C) The potential effects of climate change, possible sea level rise up to 55 inches, and possible changes in total precipitation and runoff patterns on the conveyance alternatives and habitat restoration activities considered in the environmental impact report.

To satisfy the requirements of Section 85320, the proposed BDCP operations need to have clear and specific hydrological data on flows necessary to restore the Delta

ecosystem, to give accurate information on remaining water available for export and other beneficial uses. Without this information, any Benefits-Cost Analysis is speculative and wholly inadequate for a major state project.

The proposed BDCP operations must also have a comprehensive review and analysis of potential reductions in precipitation and runoff in the Delta watershed due to climate change. Information needs to be provided on the possible yields of the project under drier climate change scenarios, as well as under the "Central Tendency" model that combines yields under wetter and drier scenarios. Without this information, the Benefits-Cost Analysis cannot adequately evaluate the project's water supply reliability benefits, or compare the project with the alternatives.

The Analysis Needs an Independent Evaluation. This type of analysis should be independently directed and managed, and follow the guidelines provided by DWR for state projects. The state of California, or its representative should not engage in efforts to direct, over-see, or influence the economist who will be doing the analysis, or create an environment that intimidates or creates a biased process that favors the recommended actions of the state or its representative. The taxpayers and citizens of California must have an unbiased evaluation in order to determine if this project is worthy of their support, and worth the anticipated costs. To date, it does not appear that an independent evaluation is going to be done, or that the evaluation will be conducted in accordance with the DWR guidelines (http://www.water.ca.gov/pubs/planning/economic_analysis_ guidebook/econguidebook. pdf). We would ask that these issues be addressed and corrected. Lastly, for a project as large and costly as this one, we would expect and recommend that a totally independent peer review be done for the final benefits-cost analysis. Without independent peer review the public will not have the confidence it needs to support the project.

There is Inadequate Evaluation of Reasonable Alternatives. CEQA and NEPA both require the evaluation of reasonable alternatives as a part of environmental analysis. BDCP's plan to examine only one alternative (BDCP) compared with a No Action alternative is not an adequate examination of reasonable alternatives. The absence of a non-tunnel alternative as well as other conveyance options is a glaring and purposeful omission that should not be tolerated. Reasonable alternatives , such as the EWC Reduced Exports Plan, the NRDC Portfolio-Based Alternative, and Dr. Robert Pyke's WDIC alternative should be compared with the BDCP alternative.

There is Improper Combining of Conveyance and Habitat Benefit and Costs. The BDCP tunnels should be analyzed separately from other considerations such as habitat restoration, according to Benefit-Cost Analysis Guidelines. Each component of a project must be able to stand on its own and be evaluated in that way. Habitat restoration and investment does not require the tunnels and must to be evaluated separately from the tunnels. By combining the benefits and costs of both activities, the tunnels will be inappropriately credited with benefits which should not accrue to them.

The No-Action Alternative and the Valuation of Regulatory Uncertainty is a Distortion of Benefit-Cost Analysis. There is concern that the no action alternative could be distorted by down-sizing the total diversion flows to below the current BiOp RPA of 4.7 million acre feet. Since this analysis is inappropriately focused on only two options, preferred and no action, it is already going to provide only limited economic information. The three alternative plans cited above deserve to be fully and equally evaluated. That said, the no action plan should not be altered away from what the current BiOp requires, and in conjunction with that, the question of regulatory certainty should not be part of the evaluation. It is our understanding that there will be no regulatory certainty no matter what plan is adopted; an economic value for regulatory certainty will only contribute to the distortion of benefits in favor of the tunnels, which is a pattern that is clearly detectable in this benefit-cost analysis so far.

An Absurdly Low Discount Rate is Being Used. The use of a 2.275% discount rate is not justified and skews the analysis in favor of the tunnel costs. DWR 2008 guidelines recommend the use of 6%, and while that number may be dated, the use of a figure as low as 2.275% is unwarranted and is another factor that demonstrates the bias that is present in this analysis.

There is No Statewide Perspective. Although the analysis claims to take a statewide perspective, there is no consideration of the impacts and associated costs to upstream diverters. With the Delta tunnels taking high quality water directly out of the Sacramento River, the upstream impacts on cold water storage releases, instream flows for fisheries, and water availability can be significant and the costs must be factored into the analysis.

The Draft Technical Report Will Not Be Available for Public Review. The Scope of Work document indicates that the initial Draft Technical Report of this analysis will be made available to DWR, Reclamation, and water contractors, but excludes other organizations and interested public. This runs contra to all the claims of transparency usually associated with public documents.

In conclusion, the cumulative effect of these above cited actions is to inappropriately tilt the analysis in favor of the BDCP tunnels and will be a fraudulent and misleading document if produced as currently planned.

We incorporate by reference and attach the comments made by Dr. Jeffrey Michael in his recent blog (http://valleyecon.blogspot.com/) and the comments from Friends of the River in their letter dated February 4, 2013.

David Nesmith — CO-FACILITATOR

Rick DiCroce — CO-FACILITATOR

Distribution:

Letty Belin, DOI
Chuck Bonham, CDF&W
Mike Conner, USBR
Phil Isenberg, DSC
John Laird, Resources
Jerry Meral, Resources
David Nawi, DOI

Valley Economy
A discussion of economic, business, and environmental issues of importance in the Central Valley.

MONDAY, JANUARY 28, 2013

BDCP Benefit-Cost Analysis Is Going Off-Track

I attended the second update on the new BDCP benefit-cost analysis on Thursday. I was optimistic after the initial meeting in November, but I am not anymore. In November, I was optimistic because they had finally agreed to do benefit-cost analysis, hired a good economist to lead it, and appeared open to feedback.

After this latest meeting, I am left with the impression that they are not responsive to feedback, and that the analysis is not really directed by the economists or established benefit-cost principles. It is directed by Jerry Meral, the Governor's chief advisor on the BDCP, who is not fair and impartial, let alone qualified to direct benefit-cost analysis. He has a clear mission to implement the Governor's vision for the twin tunnels, and he is keeping the consultants on a short leash. He does not appear to be following key elements of his agency's own benefit-cost guidelines.

In many cases when participants make good suggestions that would make the analysis more consistent with accepted guidelines, the economic consultants defer to the boss (Mr. Meral) or state that it is outside the scope of work. The scope of work should be really simple, one sentence is sufficient really. "Conduct a peer-reviewed, independent, benefit-cost analysis of the key elements of the BDCP following recently published guidelines by the Department of Water Resources (2008)." Mr Meral shouldn't be dictating anything. He should just send comment letters like everyone else.

[Update 1/29: I just became aware that the scope of work has been posted. I see nothing in this scope that changes my opinion. The lengthy scope of work is inconsistent with DWR's own guidelines for this type of analysis, contains

no provisions for peer review, and provides draft documents to the water contractors first.]

Here are several areas where I feel the benefit-cost analysis is heading off-track.

Incorrectly Bundling The Tunnels Together With the Habitat

B-C principles are clear on this issue, and the principle is clearly stated in DWR's own rules. Each of the major components of the BDCP must independently satisfy the benefit-cost test. Since the big controversy surrounding the BDCP are the proposed tunnels, B-C guidelines clearly indicate that conveyance (i.e. the tunnels) should be analyzed separately.

This element of proper B-C analysis seems to bother people who see BDCP principally as an environmental restoration package. My initial draft B-C analysis was criticized for ignoring environmental benefits of BDCP, which misses the point. It was an analysis of the tunnels - not the whole BDCP.

This concern can be avoided by considering a proper range of BDCP alternatives. These alternatives, including no-tunnel with seismic levee upgrades, and various sizes and configurations of water conveyance (i.e. the NRDC small tunnel proposal) should all be paired with appropriate habitat and operations that meet the requirements of an HCP under the ESA.

All these alternatives would then have roughly equivalent environmental values. Thus, the environmental values would cancel out when comparing alternatives and allow the resources of the benefit-cost analysis to squarely focus on the critical questions of conveyance.

Unfortunately, Dr. Meral appears to be prescribing an analysis that ties the habitat improvements to building a tunnel. This is invalid, and his own consultants have even said so by stating that the ESA doesn't require the tunnels, and the habitat investments could be made without the tunnels.

Inadequate Alternatives

This is closely related and somewhat redundant with the above concern. However, it is so important it needs to be emphasized.

Mr. Meral has made it very clear that they would only be looking at one alternative, the Governor's plan, and comparing it to a no action alternative. This is a clear source of bias, and is well-known way to game benefit-cost analysis.

At minimum, there should be a strong no-tunnel BDCP scenario (similar to the DPC economic sustainability plan) and a strong small tunnel scenario (similar to the NRDC plan). The alternatives need not be limited to that, but those two are musts. If these alternatives are included, then I wouldn't complain if the No Action alternative were dropped entirely from the analysis.

I actually think an analysis of this type would be clearer, faster, and cheaper, because it would largely avoid the morass of non-market environmental valuation and allow clear apples to apples comparisons of conveyance options.

Is the Value of Regulatory Uncertainty Back? Playing games with the No Action alternative.

This meeting also raised a new red flag for me. While the consultants are restricted to only consider one alternative to achieve the BDCP goals, it sounds like the consultants have been given the liberty to play games with the No Action Alternative. I say that because Dr. Sunding kept mentioning that the results are sensitive to the level of water exports in the No Action Alternative, strongly suggesting he is going to lower water supplies in the No Action Alternative below the 4.7maf average, potentially as low as 3maf. The 4.7maf number is based on the current biological opinions governing operation of the projects, and is consistent with the BDCP's draft EIR documents and the definition of No Action that has been used in every BDCP related presentation I have seen to date.

This is a distortion of how No Action alternatives are typically defined in B-C

analysis and in EIRs. The No Action alternative assumes a continuation of current conditions and policies. A future deviation from current policy would only be considered in rare cases if it is the clear direction and intention of the relevant government agency, in this case, the Department of Water Resources (DWR). However, DWR is litigating the current biops along with the Delta water exporters, and is on public record in court that they feel they are too restrictive and that higher levels of exports should be allowed. So it seems to me that the only deviation from a No Action alternative based on the current biological opinions that could be remotely justified is an increase in water exports, not a decrease in water exports, and certainly not to something as low as 3 maf.

I asked Dr. Sunding if this low water export scenario would be part of an additional HCP alternative, and he said no, it would be the No Action alternative. I wouldn't mind including a no-tunnel alternative with lower water supplies than the current Biops, but such an alternative should be a BDCP alternative (i.e. meeting the requirements of an HCP under the Endangered Species Act), packaged with habitat and levee investments that would generate comparable levels of environmental benefits and seismic risk reduction to water supplies.

With this manipulation of the No Action Alternative, I believe Dr. Sunding is trying to resurrect his value of "regulatory certainty" theory in the form of a super restrictive No Action Alternative. This hides it by not including regulatory certainty as a separate value category like he did in his July presentation on economic benefits. However, it effectively embeds the concept inside the valuation of water supplies and seismic risk.

Until this is cleared up, I am taking back my praise from 2 months ago that he has dropped the regulatory certainty argument. A No Action alternative should be relatively non controversial, but the discussion in this meeting makes me worried that they are going to adopt whatever creative definition of the No Action alternative is necessary to justify the Governor's twin tunnels.

Blowing Up Earthquake Risks

This is now the 4th time I have seen Dr. Sunding present the losses of an earthquake induced Delta collapse that conveniently occurs in 2025, the date the tunnels are assumed to be complete. Of course, assuming this perfect timing generates the largest possible numbers for his table.

In addition, he always presents the earthquake risk reduction benefits as raw numbers without multiplying by the probability it happens. The scope of work they developed for the "benefits analysis" last year stated that this would be multiplied by probabilities, but he isn't doing it in presentations. Why? Even the exagerrated DRMS estimates placed the probability at about 2% per year. He also includes 2 and 3 year outages that are thought to be highly improbable. I applied the DRMS probabilities to his tables and found the present value of earthquake risk reduction to be no more than 5% of the construction cost of the tunnels.

Most irritating to me, Dr. Sunding is assuming that the state will not eliminate the earthquake risk to water exports through seismic levee upgrades. The probability that this will be done in a No Action, No Tunnel alternative is certainly greater than zero, and I would argue this is far more likely than the 3 maf of exports he is seriously discussing as part of his no action alternative. Building the tunnels will probably mean that there will be no seismic upgrades of Delta levees which will result in unnecessary enormous losses of lives, property and economic activity in the event of the big earthquake event. From this broad perspective, I could make an argument that the Earthquake value of the tunnels is negative.

I believe my suggestion that the earthquake risk reduction benefits of the tunnels are negative (in other words it is a cost, not a benefit, since it will result in poor seismic protection for everything else that matters in the Delta) is far less of a stretch than the "regulatory certainty" theory Dr. Sunding has conjured up.

Super Low Discount Rate

The consultants presented a justification for an unusually low discount rate of 2.275%. One could present equally convincing justification for a 7% discount

rate, especially when focused on opportunity costs of state funds rather than today's currently low long-term interest rates that are being manipulated in unprecendented ways by the Federal Reserve.

Another reasonable approach is to look at the DWR guidelines here. In January 2008, when DWR issued its guidelines recommending a 6% discount rate, the yield on a 30 year Treasury Bond averaged 4.33%. BDCP is arguing that todays super-low market interest rates suggest a lower discount rate should be used. At the end of last week, the 30 year Treasury bond yield was 3.14%, which is only 1.19 percentage points lower than when they released their guidelines endorsing a 6% discount rate. So I don't see how DWR can make a market interest rate argument for lowering the discount rate by much more than 1 1/4%, which would be a discount rate of 4.75%.

This is an unsettled issue in Economics, and it isn't going to be settled now. The proper way to handle this is to do a sensitivity analysis that shows the results with a range of values, say 2% to 7%.

A low discount rate is the oldest trick in the book for biasing a B-C analysis in favor of a project, and by adopting a single, super low discount rate, they are just fueling perception of a rigged study.

Concerns With the Non-Market and Recreation Values

I mentioned two of these in the meeting: the noise and visual pollution of the intakes, and accounting for the lost non-market values of prime farmland. And it isn't clear to me that BDCP would result in any net gain in recreational values. After all, the folks who are currently in the Delta recreational business are some of the biggest opponents.

I also have concerns with the benefits transfer approach, but I won't bother with that here. As discussed above, I believe this is an area of intense controversy. And it is really unnecessary, because what folks really want is a benefit-cost analysis that focuses on the tunnels.