

Dr. Jeffrey Michael
Director, Center for Business and Policy Research
University of the Pacific

October 30, 2015

BDCP/WaterFix Comments
P.O. Box 1919
Sacramento, CA 95812

RE: RDEIR/SDEIS is severely biased in favor of the tunnels by using economically unviable water yields, and ignoring practical and potentially superior alternatives.

Thank you for the opportunity to comment on the Partially Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (RDEIR/SDEIS). There are several significant changes to the Water Fix, most notably the change from a Section 10 to Section 7 permit, and the addition of 3 new alternatives with a different regulatory approach. The change in regulatory approach has a substantial impact on the project's economic viability, and the new alternatives put forward are completely unresponsive to repeated requests made by numerous independent experts and various stakeholders for years. Thus, these comments are focused on critical problems with the revisions and response to comments in the RDEIR/SDEIS.

Specifically, these comments focus on two critical structural errors in the description of the project and its alternatives: 1) use of a project description that is known to be economically unviable due to its extremely low and highly uncertain water yields, 2) the exclusion of obvious, common-sense alternatives. The project description and the alternatives are the basis for the voluminous technical analysis that makes up the bulk of the RDEIR/SDEIS. The inaccurate description of project water yields and alternatives hide negative environmental and social impacts of the proposed project. I will leave it to legal experts to argue whether these actions are unlawful, but it is clear that the inaccurate project description and omission of alternatives has resulted in an RDEIR/SDEIS that is severely biased to support the proposed tunnels.

- I. Water yields: The financial viability of the tunnels requires much higher water yields than described in the RDEIR/SDEIS. Financially viable water yields would substantially reduce freshwater flows to the Delta and have serious negative effects on water quality and endangered/threatened fish species.**

The minimal water yields reported in the RDEIR/SDEIS are far too low for the \$16+ billion capital investment to make economic or financial sense. Compared to the No Action Alternative, the average annual water yield from Alt 4A (the preferred project) ranges from a loss of 23,000 acre feet to a best case scenario of 537,000 acre feet or a midpoint of 257,000 acre feet. Thus, the water yield from the tunnels is about 15,000 acre feet per \$1 billion in

capital investment. A simple comparison to the most costly alternatives available to urban water agencies and the value of farmland illustrates the economic absurdity of the tunnels if operated in the manner described in the RDEIR/SDEIS.

For farmers, 15,000 acre feet of annual average water yield for \$1 billion capital investment would be sufficient to keep about 5,000 acres of land in crops. That is a \$200,000 capital cost per acre of crop land, nearly 20 times the current market price of cropland with reliable water in the San Joaquin Valley. The tunnels are more likely to be affordable for urban areas, but their cost per acre foot greatly exceeds the most costly urban alternatives. For example, a desalination plant under construction in San Diego County yields 56,000 acre feet for a \$1 billion capital investment, over three times the water yield per dollar of investment than the tunnels. A water recycling proposal being considered by Metropolitan Water District would yield 150,000 acre feet for a \$1 billion capital investment, ten times the water yield per dollar of capital investment. Independent economist Rodney Smith has estimated that the average cost of the tunnels' RDEIR/SDEIS water yield is about \$3,000 per acre foot when considering operating and financing costs over the projects expected life cycle which is much higher than the cost of alternatives and well above what farmers have been willing to pay for water during the most extreme drought years.

Even the BDCP's own chief economic consultant, Dr. David Sunding, said that the tunnels do not make sense at the water yields in the environmental documents. He was asked by a board member of the Metropolitan Water District if the tunnels' penciled out at the 2013 EIR/EIS water yields, and he answered "No." It should be noted that the 2013 EIR/EIS water yields were higher than those in the current RDEIR/SDEIS. It should also be noted that the seismic risk reduction and water quality benefits do not provide economic justification according to their own expert. His 2013 analysis estimated the seismic risk reduction and water quality benefits to water exporters were worth a cumulative \$2.5 billion over the first 50 years of operation, only about 15% of the tunnel's cost. The majority of the economic benefits he estimated from the tunnels were based on the 50-year regulatory protection from being part of the BDCP habitat conservation plan – based on the theory that environmental restrictions on pumping are likely to get stronger in the future – and the Section 10 ESA permit would protect the water agencies from future water exports that he argued would be much lower than the No Action Alternative in the EIR/EIS. In essence, the value of the tunnels was that the Section 10 HCP would lock in current or somewhat higher level of exports for 50 years. However, the new alternative 4A in the RDEIR/SDEIS is not a Section 10 HCP. Thus, that analysis from a draft August 2013 economic impact report is irrelevant to the new alternative 4A, and no update has been released despite repeated promises.

Many of the water agencies that would pay for the WaterFix have stated openly (i.e. Kern County Water Agency RDEIR/SDEIS comment letter) that the project is economically infeasible at the EIR/EIS water yields, or expressed serious doubts (Westlands Water District, San Diego County Water Authority). There can be no doubt that after the tunnels are built that there will be enormous financial pressure to export far more water than described in the RDEIR/SDEIS. Given the projects extreme cost, reliance on water rates and water sales to generate revenue for its massive debt service, and its physical capacity to export far more water than described in

the RDEIR/SDEIS, the project description is incomplete without a detailed financial plan and analysis.

In short, common sense and even the BDCP's own analysis show that the tunnels are not financially viable at the operations listed in the RDEIR/SDEIS. **A complete project description must include an economic analysis and financial analysis that supports the project at the water yields in the project description. Without this financial information, it appears that the RDEIR/SDEIS is using a false project description to conceal adverse environmental impacts from reductions to Delta freshwater flows.**

- II. Alternatives: The RDEIR/SDEIS claims that it is being responsive to the call for new alternatives by adding three revisions to the North Delta Intakes and isolated tunnel conveyance. In doing so, it continues to ignore the substance of repeated comments from independent scientific experts and stakeholders. Incredibly, the RDEIR/SDEIS even ignores alternatives that are specifically cited as viable tunnel alternatives in current plans and recent reports by the beneficiaries of the tunnels.**

The RDEIR/SDEIS ignores at least four obvious alternatives to the north Delta intakes and tunnels. These four alternatives should be considered separately and combined into comprehensive alternatives. As another possible approach to correcting this deficiency, several of these alternatives could be included in the No Action Alternative, especially when they have been already identified in the plans of various water agencies as actions that they will take or expect if the tunnels are not constructed. While these comments specifically mention the four most obvious alternatives that have been ignored, it should not be considered a complete list.

- 1) Levee Upgrades: Delta levees are simultaneously a water conveyance system and habitat, and concerns about the performance of the "aging" levee system is the most prominent motivation for the proposed tunnels. Upgrading the existing system is an obvious and common sense alternative that must be considered. In fact, several other comprehensive analyses of the Delta have found levee upgrades are a superior approach to isolated conveyance. Thus, it seems the only reasonable explanation for ignoring levee upgrades in the alternatives is to avoid serious negative findings in the RDEIR/SDEIS. Among the analyses recommending levee upgrades that were produced during the California Water Fix process are the following:
 - a. The Department of Water Resources' 2008 Report to the California Legislature "Risks and Options to Reduce Risks to Fishery and Water Supply Uses of the Sacramento/San Joaquin Delta" included seismic levee upgrades along with isolated conveyance on a short list of three promising strategies for further analysis.¹ It is indefensible that the same agency that told the California Legislature levee upgrades were on the short list of promising

¹ http://www.water.ca.gov/floodsafe/fessro/levees/drms/docs/AB1200_Report_to_Legislature.pdf

alternatives would then omit it among fifteen BDCP/Water Fix alternatives that were developed shortly thereafter

- b. The peer-reviewed Economic Sustainability Plan approved by Delta Protection Commission in early 2012 recommended seismic levee upgrades as a superior approach to isolated conveyance. It found that seismic levee upgrades would enhance water supply reliability, improve riparian habitat, and compared to isolated conveyance it has the added benefits of enhancing public safety, protecting critical infrastructure and property.
- c. Department of Water Resources consultants working on DRMS Phase II found that Seismic Levee Upgrade strategy had higher benefits and lower costs than other strategies including a peripheral canal similar to the current WaterFix proposal. The Department of Water Resources then omitted Seismic Levee Upgrades from the options in the DRMS Phase 2 final report and delayed its release by several years.² This omission of seismic levee upgrades from the DRMS Phase 2 final scenarios when it performed best in the draft analysis, provides an important precedent that shows DWR has a history of deleting levee upgrade alternatives from their reports if it does not support their politically preferred alternative.

Unlike isolated conveyance, which only protects water exports from the risk of earthquakes and floods, seismic levee upgrades would protect water exports, save hundreds of lives, prevent destruction of habitat and water quality degradation, and protect billions of dollars in critical infrastructure and private economic assets. Thus, if compared to a seismic levee upgrade strategy, the BDCP/Water Fix preferred project would be found to result in avoidable fatalities, environmental and economic damage. Clearly, that serious negative impact for tunnels' that is not disclosed in the RDEIR/SDEIS because it ignores seismic levee upgrades as an alternative.

- 2) Increased Investment in Alternative Water Supplies and Conservation: Many water agencies have stated that they will increase investment in alternative water supplies in the absence of the tunnels. In fact this strategy is in the official resource management plan of some of the agencies, and water agencies have put forward economic analysis that describes much of the benefit of the tunnels as avoiding these obvious alternatives. Thus, it is inexcusable to exclude increased investment in alternative water supplies from the No Action and alternative scenarios.
- 3) Increased Freshwater Flows, Reduced Exports: This is the No Action Scenario DWR uses in previous economic analysis, and continues to argue is their expected outcome without the tunnels use when questioned on costs. But the RDEIR/SDEIS invalidly and inconsistently ignores higher flows in either the No Action scenario or alternative scenarios.

² <http://www.pacific.edu/Documents/school-business/BFC/Econ%20Sustain%20Plan%20PDFs/Appendices/Appendix%20N.pdf>

- 4) Alternative Intake Locations, Especially the West Delta: This is another obvious alternative that is ignored in the analysis. It would reduce environmental and socio-economic impacts in the Delta and potentially reduce costs to the water agencies by greatly shortening the lengths of the tunnels. While there are advantages to water exporters of being further upstream, there is no valid reason to completely exclude a full analysis of moving the intakes downstream.

The RDEIR/SDEIS should be rejected. A generous review of the RDEIR/SDEIS would reject it for providing an incomplete description of the project without a financial plan to support the low water yield, and incomplete because it fails to consider a full range of viable, practical alternatives. Given the substantial record and nine years of planning, a less generous review would reject the RDEIR/SDEIS for making intentional false statements about expected water yields, the no-action scenario, and available alternatives in order to obtain environmental approvals with a severely biased analysis.

The WaterFix is the most costly and controversial water project ever proposed in California's history. I do not have the legal expertise to offer an opinion on whether or not the RDEIR/SDEIS meets minimal legal standards. However, it is clear that the RDEIR/SDEIS falls well short of the unbiased and complete analysis that California and U.S. citizens deserve to support such an important policy decision. If the WaterFix was a strong project, the obvious bias in the framing of the analysis described in this letter would not be necessary. Having closely studied the development of BDCP/WaterFix for the past seven years, there is no doubt in my mind that there are not only superior alternatives, but that building the tunnels will ultimately prove to be more economically and environmentally harmful than doing nothing at all. Fortunately, there is no shortage of positive actions and investments that will be more likely to occur without the Delta tunnels, even if those likely and preferable alternatives are ignored in BDCP/WaterFix RDEIR/SDEIS.

Sincerely,



Dr. Jeffrey A. Michael

Director, Center for Business and Policy Research
University of the Pacific