

**Department of Water Resources Response to Delta Vision Task Force
BDCP Conveyance Inquiry
October 19, 2007**

Task Force Question:

How much more water could be diverted from the Delta (if any) for each of the four BDCP options?

DWR Response:

The answer to this question is best derived from a regulatory perspective rather than the BDCP planning and study activities. The regulatory processes that would guide any modification in water exports are described below. An update of the water supply and other planning considerations within BDCP option studies is also provided.

More water could be diverted from the Delta in some years under any of the options being evaluated by BDCP. However, such an increase in water being diverted would have to be approved by a myriad of regulatory agencies. The evaluation of the water supply performance of the four BDCP options is based on their ability to achieve the water supply capabilities experienced over the past several years and identify opportunities where additional water might be available consistent with the species conservation goals.

Any SWP or CVP water project benefits that occur would be largely in the form of increased delivery reliability/reduced volatility through a more stable regulatory environment; not necessarily increased water supplies. The purpose of the BDCP is to develop a conservation plan for specific covered species that obtains these water supply reliability objectives. The four water conveyance options being evaluated by BDCP around which the conservation plan will be developed are (1) Option 1 – existing diversion facilities (2) Option 2 - an armored Middle River and Siphon under Old River (3) Option 4 – an new diversion in the North Delta and an Isolated conveyance facility (4) Option 3 – a combination of options 2 and 4. Table 7-1 is taken from the BDCP Options Evaluation Report and provides a qualitative comparison of the options' ability to benefit the covered species.

Regardless of which BDCP option is chosen, there are several regulatory processes and agencies that would be involved in determining any changes to operating criteria or facilities in the Delta. The agencies and processes include: (1) the United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and the development of biological opinions to protect federally listed threatened or endangered species; (2) the State Department of Fish and Game (DFG) in the implementation of the California Endangered Species Act (CESA); (3) the SWRCB and the development of updated or revised water right decisions; (4) development of a Bay Delta Conservation Program under the State Natural Communities Conservation Plan (NCCP) and Federal Habitat Conservation Plan (HCP) statutes; (5) revised permits from the U.S. Corp of Engineers and Clean Water Act 401 certifications by the SWRCB and other agencies; and (6) others that may be developed as part of the Delta Vision process and subsequent legislation. Any increases in project water diversions in the future under any of the BDCP

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options would be subject to the extensive regulation and public review as described above.

Table 7-2 is also taken from the BDCP Options Evaluation Report. It provides a qualitative comparison of planning, feasibility/durability/sustainability and other resource impacts. Water supply is considered under the planning criteria category. Option 3 performed most favorably from a water supply standpoint while Option 1 performed the worst.

Figures 1 through 4 show quantitative water supply modeling results in terms of combined SWP and CVP deliveries under the four options and relative to a base condition. Two different operational scenarios were developed for each option. This provides a range of possible operations to test the sensitivity of each option to provide both environmental and water supply benefits. Both ranges provide environmental and water quality protection. Range A provides the most water supply benefits while Range B provides the least water supply benefits. These studies are most valid in the comparison of the options and their operational ranges to the baseline and each other. Actual operating criteria are expected to be developed as part of the BDCP process and subject to NEPA, CEQA and all other regulatory processes.

As reflected in the qualitative ranking of *water supply goals* in Table 7-2, Option 3 appears to provide the highest level of supply reliability followed by Option 4. The BDCP consultant's analysis of Option 2 indicates the capability of the siphon under Old River has a hydrologic constraint of 4,500 cfs. Figure 2 indicates the implication of this constraint on water supply. For the analysis in the BDCP Options Evaluation Report and that shown in Table 7-2 below the consultant included a set of pumps to increase flow into the Siphon to more closely match the water supply performance of the other options. However, Option 2 still did not perform well from a water supply perspective as shown in Figure 7-2. More details regarding the modeling tools, assumptions and results are published and can be viewed at the following web address:
http://resources.ca.gov/bdcp/options_evaluations.html

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Table 7-1. Comparison of Options by Covered Fish Species

Species	Performance Rank ¹			
	Option 1	Option 2	Option 3	Option 4
Delta smelt	•	••	•••	••••
Longfin smelt	•	••	•••	••••
Sacramento River Salmonids	•••	•••	•••	••••
San Joaquin River Salmonids	•	••	•••	••••
White Sturgeon	•	•••	•••	••••
Green Sturgeon	•••	•••	•••	••••
Sacramento splittail	••	••	•••	••••
<i>Notes:</i> 1. Based on information presented in Tables H-1 to H-9 addressing Biological Criteria #1-7. Species performance ranks are: •••• = Best performing, ••• = Second best performing, •• = Third best performing, • = Lowest performing Where ranks are equal the two Options receive same rank				

Table 7-2. Comparison of Options by Planning, Feasibility/Durability/Sustainability, and Other Resource Impacts Criteria

Criterion	Performance Rank ¹			
	Option 1	Option 2	Option 3	Option 4
Planning Criteria				
8. Water supply goals	••	•	••••	•••
9. Feasibility/practicability	••••	••••	••••	••••
10. Minimize cost	•	••	•••	••••
Flexibility/Sustainability/Durability Criteria				
11. Durability to catastrophic events	•	••	••••	•••
12. Minimize ongoing resource input for long-term conservation	•	••	•••	••••
13. Flexibility/adaptability	•	••	•••	••••
14. Reversibility	••••	•••	••	••
Other Resource Impacts Criteria				
15. Avoidance of impacts on other native species (in-Delta)	••••	••	•	•••
16. Avoidance of impacts on human environment (in-Delta) ²	••••	•••	•	••
17. Avoidance of impacts on native species (outside Delta)	••	••	••••	•••
<i>Notes:</i> 1. Derived from information presented in Sections 7.2, 7.3, and 7.4. 2. Does not include indirect effects in export service areas. Criteria performance ranks are: •••• = Best performing, ••• = Second best performing, •• = Third best performing, • = Lowest performing Where ranks are equal the two Options receive same rank				

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Figure 1- BDCP Option 1

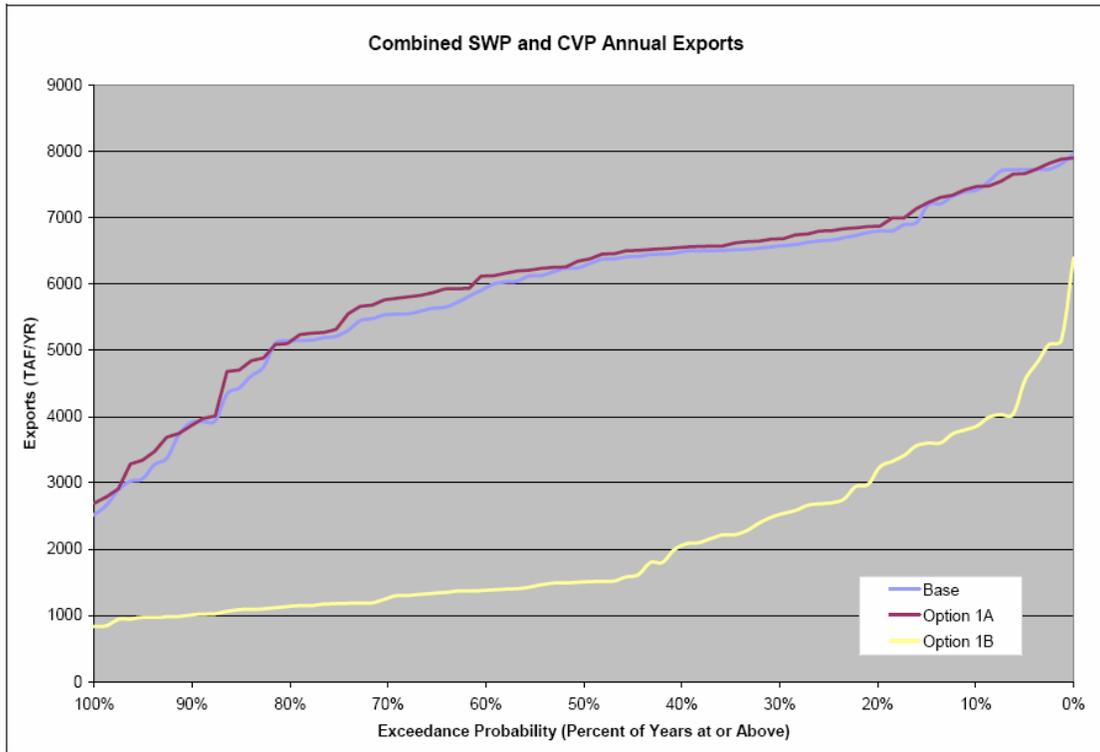
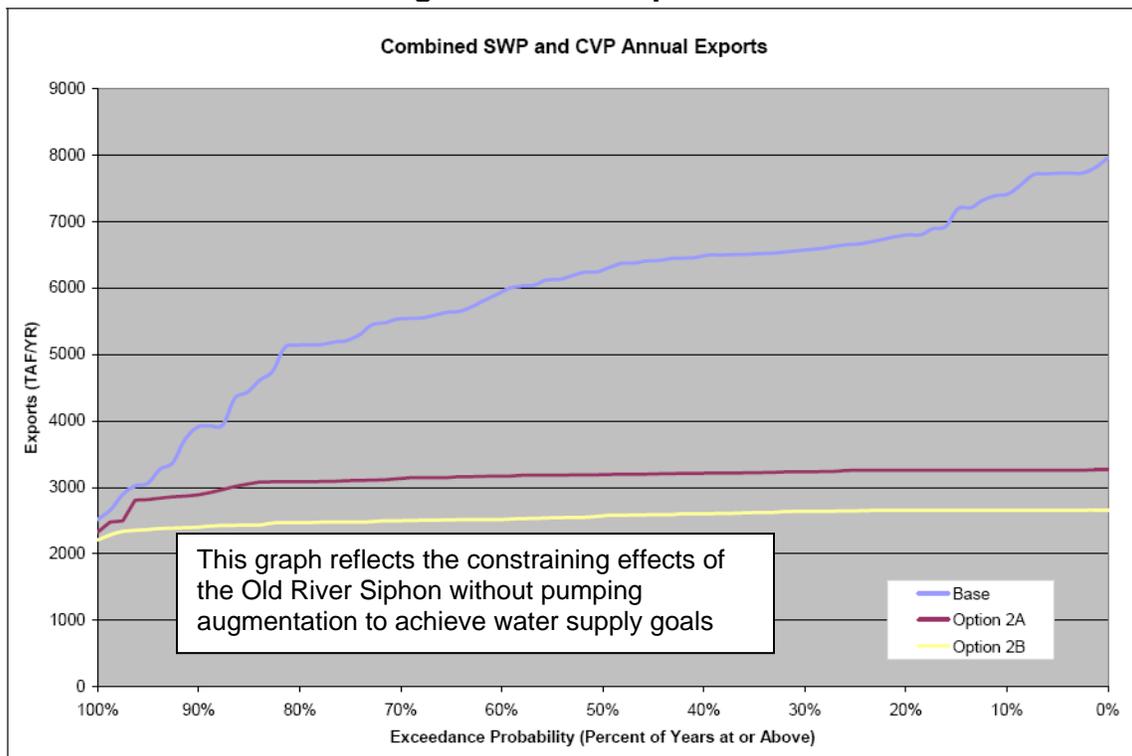


Figure 2- BDCP Option 2



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Figure 3 - BDCP Option 3

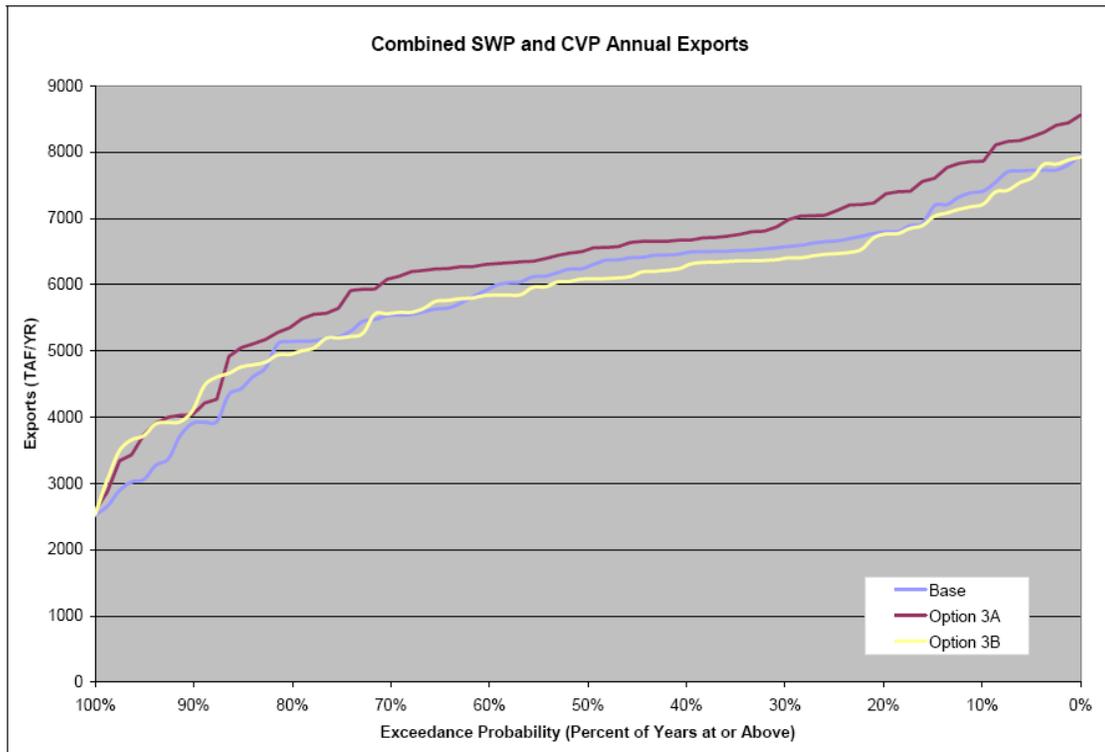


Figure 4- BDCP Option 4

