

Proposed Panel Questions Form
(Due 12 Noon, Wednesday, December 22, 2010)

**January 6 and 7, 2011 Public Workshop on Draft Technical Report
on the Scientific Basis for Alternative San Joaquin River Flow and
Southern Delta Salinity Objectives**

The Bay Institute and Natural Resources Defense Council request that the following prioritized questions be addressed in the above workshop:

PRIORITY	QUESTION DIRECTED TO:	PROPOSED QUESTIONS FOR PANEL ON THE HYDROLOGIC ANALYSIS OF THE SAN JOAQUIN RIVER BASIN
1	All	Would reservoir re-operation on the San Joaquin River and tributaries potentially result in reduced flood flows and increased flows for fishery purposes?
2	All	Are the estimates of gains and losses on the main stem of the San Joaquin River from Friant Dam to Vernalis adequate for developing and implementing flow standards?
3	DWR	What is the timeline for making adjustments to the monthly unimpaired flow records? Will they include an update with more recent years (beyond 2003) and refinement (changes due to accretions and depletions) to the SJR Basin unimpaired flow at Vernalis?
4	All	Given the daily unimpaired flow calculations at the rim stations in the San Joaquin River Basin available on the CDEC and CVO web pages, the daily unimpaired runoff forecasts by the California Nevada River Forecast Center (RFC), and the monthly forecasts of unimpaired runoff by DWR and RFC, what are the best datasets to use for implementing Vernalis flow standards based upon a percentage of unimpaired runoff?
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PRIORITY	QUESTION DIRECTED TO:	PROPOSED QUESTIONS FOR PANEL ON THE SCIENTIFIC BASIS FOR DEVELOPING ALTERNATIVE SAN JOAQUIN RIVER FLOW OBJECTIVES
1	All	In light of research showing that predation on salmonids is significantly reduced in the San Joaquin River system during higher flows (<i>see, e.g.,</i> Bowen, 2010, VAMP 2010, IEP POD Report 2010), how and to what extent would various flow recommendations reduce or mitigate the impact of predation by native and nonnative species on migrating juvenile salmonids?
2	All	How and to what extent would the various flow recommendations address so-called “other stressors” in the Lower San Joaquin River? For instance, to what extent would various flow recommendations reduce adverse impacts of contaminants, water pollution, low dissolved oxygen, and/or high water temperatures? Does the range of recommendations in the technical report adequately address the full range of flow-impaired water quality conditions?
3	All	In addition to effects on abundance and productivity, would improved flow conditions in the lower San Joaquin River have an effect on the distribution and/or life-history diversity of native fishes, including (but not limited to) salmonids? Is that an important consideration for conservation and restoration of these species? Why or why not?
4	All	The Independent Peer Review Report on VAMP (2010) concluded that VAMP data should <i>not</i> be interpreted as meaning that exports, especially at high levels, have no effect on survival rates (p. 5), and recommended continuing export limitations and inflow:export ratios to protect migrating salmonids (p. 9). In light of these findings, can the State Board develop improved flow requirements for the lower San Joaquin River without regulating exports (e.g. through export limitations or inflow:export ratios) during the same phase of the proceeding? Can export limitations be addressed in subsequent phases of the proceeding? Are there other non-flow actions (e.g., installation of HORB) that should be considered in this phase of the proceeding?

5	All	Are there other Vernalis flow recommendations that the Board should consider in order to protect and restore migrating salmonids, such as fall pulse flows, or minimum summer flows/temperature requirements?
6	All	What other species would benefit from improved lower San Joaquin River flows, and are there specific flow objectives for those species that should be considered (e.g., splittail, sturgeon)?
7	All	What ecosystem benefits would these flow proposals provide in the Delta?
8	All	Are there specific ways in which the flow recommendations should be modified to address the needs of steelhead as well as fall run Chinook? Similarly, because spring run Chinook are found in small numbers in the Tributaries, are there specific flow recommendations (including, in particular, different seasonality of flows) that should be considered for that species?
9	All	To what extent are flood flows in the lower San Joaquin River and tributaries important to restoring and maintaining the abundance, diversity, and productivity of salmonids and other native fishes? Are there break points in the flow:abundance relationship for salmonids that the Board should consider in establishing flow recommendations?
10	All	Should the Board consider establishing flow objectives at locations in addition to Vernalis, in order to restore and maintain abundance, productivity, distribution, and diversity of salmonids and other native fishes?
11	All	How would you recommend that the Board adaptively manage these flows? What objectives, monitoring, and data would be needed for adaptive management?

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PRIORITY	QUESTION DIRECTED TO:	PROPOSED QUESTIONS FOR PANEL ON THE SCIENTIFIC BASIS FOR DEVELOPING ALTERNATIVE SOUTHERN DELTA SALINITY OBJECTIVES
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The Bay Institute and Natural Resources Defense Council request that the following prioritized questions be addressed in the above workshop:

PRIORITY	QUESTION DIRECTED TO:	PROPOSED QUESTIONS FOR PANEL ON THE POTENTIAL WATER SUPPLY IMPACTS OF POTENTIAL ALTERNATIVE SAN JOAQUIN RIVER FLOW AND SOUTHERN DELTA SALINITY OBJECTIVES
1	All	How would alternative water supply sources (improved efficiency, groundwater banking, recycled water) mitigate or reduce potential water supply impacts?
2	All	How does the analysis of potential water supply impacts compare to the requirements of D-1641 (not VAMP)? How does it compare to the requirements of the existing NMFS Biological Opinion on CVP operations?
3	All	What economic benefits would improved flows yield (e.g., economic benefits in the salmon fishery and recreational delta fisheries)?
4	All	To what extent would reduced inputs of salts from upstream sources (e.g., strengthened discharge regulations, land fallowing, treatment of discharges) reduce the need for additional flows to maintain adequate salinity levels in the Southern Delta?
5	All	What economic benefits would improved flows yield in terms of reduced water treatment costs for exporters?
6	DOI	Could a focused effort develop a "General Investigation" (GI) water supply and flow standard modeling tool for the San Joaquin River Basin in sufficient time to supplement CALSIM analysis in developing flow standards?? What additional modeling analysis with CALSIM should be done in the available time to help develop flow standards?
7	All	What other models or modeling tools are available to supplement and improve the use of CALSIM 2?
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