

DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 942360001
(916) 653-5791



April 22, 2013

Felicia Marcus, Chair
State Water Resources Control Board
P.O. Box 100
Sacramento, California 95812

Via email: bay-delta@waterboards.ca.gov

Dear Chairwoman Marcus and Members of the Board:

The Department of Water Resources (DWR) appreciates the opportunity to respond to information presented to you at the April 9th State Water Resources Control Board (State Water Board) meeting as part of the "next steps" item on the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary Water Quality Control Plan phase 2 update (Bay-Delta WQCP phase 2 update). DWR commends Brock Bernstein and ICF on the effort put into accurately summarizing the information presented to the State Water Board during the science workshops in the fall of 2012. As stated in that report, scientific uncertainties, as opposed to disagreements, exist and warrant further discussion.

In particular, the ICF report states, in part: (1) "major uncertainties revolved around the reliability of ecological relationships to the LSZ as a central basis for planning and the degree to which the combination of pumping and Delta inflows moves the LSZ around the Delta;"¹ (2) "the role flow plays in the ecosystem and about how to manage flow are reflected in a core set of uncertainties"² including the weight of recent studies, expected benefits from flow, and "the relationship between specific flow levels and key outputs such as amounts of different habitat types or abundances of different species of fish, the ecological role of fall flows particularly for longfin smelt, and the relative importance of San Joaquin flows to the Delta ecosystem, specifically salmon populations,"³ and "sources of turbidity in the system;"⁴ (3) there exist "questions of pelagic species' specific habitat requirements and about the proper balance between addressing flows and needs for improved/expanded habitat;"⁵ (4) "entrainment and salvage are important processes, but the actual levels of entrainment and salvage by species, the specific conditions that increase the risk of entrainment and/or salvage, and the population level effects of entrainment/salvage are all uncertain;"⁶ (5) "in terms of salmon, the mechanisms (e.g., affecting salmon migration, especially in the western Delta;"⁷ and, (6) "uncertainties are characteristics and foodweb productivity."⁸ DWR agrees with ICF that some aspects of

1 ICF International, Comprehensive (Phase 2) Review and Update to the Bay-Delta Plan Draft Bay-Delta Plan Workshops Summary Report (January 2013) page 4.

2 *Id* at p. 7.

3 *Id*.

4 *Id* at p. 8.

5 *Id* at p. 10.

6 *Id*.

7 *Id*.

8 *Id* at p. 11.

the science on fish species are inconclusive, unknown or questionable. Thus, contrary to what was presented by the Bay Institute on April 9th, the State Water Board should seek out further information in an attempt to find better answers. The science is not conclusive, nor does the scientific community have consensus.

Specifically, DWR reiterates the main messages it presented at the science workshops. There is a significant amount of new understanding regarding the physics, chemistry and biology of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. Much of the information included in the 2009 Staff Report for the Bay-Delta WQCP phase 2 update is supplanted by new information. Principally, new information is eroding the historic notion that river flows and the location of the low salinity zone are the master variables to restoration of the Bay-Delta. Rather, it is clear that the whole range of ecosystem stressors must be considered. The relative importance of flow is unknown and warrants further investigation.

Furthermore, the science shows that exports appear to have no significant effect or only a modest contribution on salmonid survival. In other words, the influence of the State Water Project on downstream migrating salmonids is less substantial than has been previously hypothesized. At the same time, there is an underemphasis on life history diversity, habitat for rearing and migrating salmonids, and the marine portion of the salmonid lifecycle.

Further workshops that explore the areas of uncertainty and disagreement reported by ICF are valuable. Following the conceptual process presented to you by Dr. Goodwin would help to increase the amount of information available in this update. Based upon the recommendations provided by both of these parties, DWR recommends that the State Water Board continue to seek information and not rush to end the workshop process.

DWR looks forward to the next steps that the State Water Board will take in this process and will continue to fully participate and provide the best available science. If you or your staff have any questions on submissions by DWR, please contact Katherine Kelly, Chief of Bay-Delta Office at (916) 653-1099 or Kathy.Kelly@DWR.

Sincerely,

A handwritten signature in blue ink that reads "Katherine Kelly" with a stylized flourish at the end.

Paul Helliker
Deputy Director