From: Mark Rockwell [mailto:mrockwell@stopextinction.org]
Sent: Friday, January 27, 2012 9:58 AM
To: Grindstaff, Joe@DeltaCouncil
Subject: State Water Board Delta Flow study

Joe, I'm concerned about the attached letter from the state and federal contractors to the SWRCB requesting they delay their flow study until BDCP is completed. My understanding from our discussions is that the Council has mandated the SWRCB to do both through Delta and tributary flow determination on date certain, 2014 and 2016. This request only serves to muddy the water, and make it less likely that flow findings will be included in the over-all BDCP process. Can you advise how the Council understands this request?

On this same issue - Delta flows - Dr. Jon Rosenfield, PhD, has extensively researched this issue for The Bay Institute, and has put together a good presentation on what Delta flows are needed to recover listed Delta fish species. He has given this presentation at the recent NGO/BDCP meetings in San Francisco. Dr. Rosenfield has been involved in the Delta for many years, and studied under Dr. Peter Moyle at U.C. Davis.

Because we in EWC believe flows are a pivotal issue in both the Delta Plan and BDCP, I would like to request that Jon have the opportunity to present his information to the Council at a public meeting. Because the Delta Plan will likely accommodate the BDCP plan, including diversion schedules and the resulting tributary and through-Delta flows, it is critical that the Council members and the public really understand the biology and hydrology of water movements in the Delta, and their resulting impacts. The attached letter includes impacts that the contractors claim are valid, but yet there is no biological support for these claims. We believe the Council needs to hear from a knowledgeable fisheries biologist who has spent extensive time evaluating this issue, and hear his conclusions on what is needed for Delta stability and fishery recovery. Both are critical to a successful Delta Plan.

Please let me know what might be possible, and perhaps a phone call is needed to better understand why we in EWC feel this is a critical time for this presentation. Thanks for your time and consideration.
Mark R.

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Dr. C. Mark Rockwell
California State Representative
Endangered Species Coalition
19737 Wildwood West Dr.
Penn Valley, CA 95946
530 432-0100
mrockwell@stopextinction.org

Charles Hoppin, Chair
Francis Spivey-Weber, Vice Chair
Tam M. Doduc, Member
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Dear Board Members,

The undersigned public water and power agencies believe that the State Water Board should allow ongoing processes in the Delta to be completed before it acts on the Bay/Delta Water Quality Control Plan, and that it would be premature for the State Water Board to proceed with scheduling hearings for new outflow objectives for the Sacramento-San Joaquin Delta given the lack of analysis of the real-world effects of the Delta Flow Criteria and similar concepts that focus on historical unimpaired flows. For the reasons that follow, we respectfully request the opportunity to present in detail the findings of our analyses of the Delta Flow Criteria impacts before any State Water Board hearings on Delta outflow objectives are initiated.

We read with interest the December 19, 2011 letter from Tom Howard to Gerald Meral, Deputy Secretary of the California Natural Resource Agency, regarding the State Water Board's Bay-Delta planning process. We were encouraged to read that the State Water Board is working closely with the Bay/Delta Conservation Plan (BDCP) process and that it "will use the environmental and other analyses prepared in support of BDCP" to consider water right changes and other requested actions out of that process. However, we were troubled to read that the State Water Board intends to concurrently initiate revisions to the Sacramento River flows, Delta outflows and water project operations portions of its Bay/Delta Water Quality Control Plan *before* the BDCP analysis is finalized. We believe that initiating these revisions before the BDCP is completed would not be appropriate or consistent with SBX7-1.

SBX7-1 directed the State Water Board to develop Delta Flow Criteria (which the Board did in August 2010) and directed that future actions of the State Water Board "be informed by the analysis." (Water Code section 85086(c)(2).) The State Water Board recognized that the analysis

that lead to the 2010 Delta Flow Criteria did not involve any public interest or public trust balancing that would be required under both its water quality and water right authorities. For example, the State Water Board did not consider what the impacts of these 2010 Delta Flow Criteria might be on upstream fish habitat, wildlife, water supplies, energy production or any other beneficial use of water.

Over the past several months, we have collectively performed analyses of some of the impacts to other beneficial uses and public trust resources if the 2010 Delta Flow Criteria or some lesser version of the same "natural hydrograph" paradigm were implemented. The impact studies we performed use the SWP/CVP system as surrogates for the types of impacts that would be seen by Sacramento Valley users and include separate analysis for the San Joaquin River system. While the State Water Board may decide to spread this possible new flow burden to other users, similar impacts would be felt by other users as well. While our studies are still ongoing, we have much valuable information to share with you.

In short, these analyses conclude that:

- The impacts of the 2010 Delta Flow Criteria would be devastating to other beneficial uses of water, including public trust resources, and would cause existing water quality requirements to be violated.
- The criteria would not likely have the anticipated benefit to the Delta and may actually make habitat conditions in the Delta worse.
- Reservoir levels in all of the major SWP and CVP reservoirs (Oroville, Trinity, Shasta and Folsom would be greatly reduced and the new flow criteria would result in "dead pool" levels (effectively empty) in all of them by the end of summer in half the years. This would have devastating impacts to recreational uses and to temperatures for salmon downstream.
    - For example, lost cold water pools and reduced summer and fall flows would result in a breach of temperature objectives below Shasta in about 90% of the years, likely eliminating winter run salmon and naturally spawned fall run in the Sacramento River.
- Many times there would not be enough water to meet existing standards in the water right decisions and those in the Biological Opinions of the federal fishery agencies.
- While Delta outflow in the spring would be increased on average by 4.6 million acre-feet, this would come at an unfathomable water supply cost:
    - About 700,000 acres of agricultural land in the Sacramento Valley would be forced out of production. (As a point of reference, the entire rice crop in the Sacramento Valley is typically about 500,000 acres).
    - No reservoir storage releases were made to support Delta exports in these studies. Exports would be cut by an average of 2.8 million acre-feet, about in half.
    - Over 1 million acres of agricultural land south of the Delta would be forced out of production.
    - Municipal and Industrial users west and south of the Delta would lose on average 1.1 million acre-feet (which is about the urban water demand for the entire San Francisco Bay Area Region).
    - Water supplies to wildlife refuges both north and south of the Delta would be greatly reduced and the Pacific Flyway benefits of rice production in the fall would be reduced.

- Energy impacts would be substantial.
    - Clean hydropower generation would be reduced on average by 30%.
    - Summertime hydropower production would be reduced by 50-70%, potentially undermining the overall stability of California's energy grid.
- The 2010 Delta Flow Criteria would result in higher spring flows and hydropower production, during these typically energy-surplus times, and greatly depleting energy supplies needed to meet summer peak demand.
- Implementation of the Delta Flow Criteria would be contrary to the State's efforts to prepare for climate change and to increase renewable energy portfolios.
    - Loss of hydropower production, which has a unique balancing value in the energy grid, would be offset (if it could be offset) by other sources that are carbon producing, thus frustrating the State's efforts to lower its carbon footprint as set forth in AB32.
    - The ability to integrate renewable energy sources into the State's energy portfolio would be reduced. The California Independent Systems Operator is counting on the SWP operations and their ability to increase hydropower production or drop water-pumping load at peak-demand times to allow for the integration of more fixed renewable sources. Loss of these "ancillary services" would set back the integration of renewable energy sources and force increased reliance on conventional gas-fired plants.
    - Air quality requirements would be undermined through increased reliance on fossil fuel production due to a loss of hydroelectric generation during key summer peak periods.
    - Loss of cold water pools in reservoirs upstream would be of particular concern given that with climate change our ability to adapt to less cold water snow melt to protect salmon in the future would be adversely affected.

These are just a few of the findings of these analyses. We plan to submit to the State Water Board detailed analyses of these impacts.

We believe that the State Water Board must allow the on-going federal ESA Habitat Conservation Plan process for the Delta to be completed before it acts on its Bay/Delta Water Quality Control Plan. The BDCP process is taking a much more holistic approach to promoting Delta ecosystem health (which takes into account the benefits of proposed habitat restoration and steps to address non-native species and other stressors, as examples) than is evident in the Delta Flow Criteria or the subsequent staff focus on historical unimpaired flows. In addition, it would be premature for the State Water Board to proceed with scheduling hearings for new flow objectives for the Delta, given the lack of analysis of the real- world effects of the Delta Flow Criteria.

We ask the State Water Board to delay any review of the Delta outflow objectives until: (1) the ongoing Habitat Conservation Planning process for the Delta has been competed; and (2) the State Water Board becomes more informed about the real-world impacts that such changes would have on public trust resources and water supply and power implications. We request the opportunity to present in detail the findings of our analyses before any State Water Board hearings on Delta outflow objectives are initiated.

We look forward to continuing to work with you on these important issues.

Sincerely,

James H. Pope
Northern California Power Agency, General Manager

Curt Aikens
Yuba County Water Agency, General Manager

David Modisette
California Municipal Utilities Association, Executive Director

Thomas W. Birmingham
Westlands Water District, General Manager

David Guy
Northern California Water Association, President

Terry Erlewine
State Water Contractors, General Manager

John DiStasio
SMUD, General Manager & Chief Executive Officer

Barry Tippin
Redding Electric Utility, Electric Utility Director

Brian Crane
City of Redding Public Works, Public Works Director

Cc:
John Laird, Secretary of the California Natural Resource Agency
Jerry Meral, Deputy Secretary of the California Natural Resource Agency
Matt Rodriguez, Secretary of CALEPA
Craig McNamara, President of the State Board of Food and Agriculture
Karen Ross, Secretary of the Department of Food and Agriculture
Chuck Bonham, Director of the Department of Fish and Game
Mark Cowin, Director of the Department of Water Resources
Tom Howard, Executive Director of the Water Resources Control Board.
Steve Berberich, President and CEO of California Independent System Operator
Dr. Robert B Weisenmiller, Chair of the California Energy Commission
Michael R. Peevey, President of the California Public Utilities Commission