

San Luis & Delta-Mendota Water Authority



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State Water Contractors



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September 21, 2012

Via E-mail: RemandSEP@usbr.gov

Ms. Sue Fry
Area Manager, Bay-Delta Office
Bureau of Reclamation, Mid-Pacific Region
801 I Street, Ste 140
Sacramento, CA 95814

Re: Comments Regarding the Project Description and Science Review Component for the Remand Stakeholder Engagement Process

Dear Ms. Fry:

The State Water Contractors and the San Luis & Delta-Mendota Water Authority ("Public Water Agencies") submit the following comments regarding the project description and science review component for the Remand Stakeholder Engagement ("RSE") process. These comments are not intended to be comprehensive and the Public Water Agencies look forward to providing additional comments throughout the RSE process.

Science Review Component

The Public Water Agencies have previously submitted detailed comments on the science review component. Since these comments have not yet been incorporated into the science review document, the Public Water Agencies do not have additional comments at this time. We direct you to our detailed comments provided in two emails from Mr. Creel (dated August 18, 2012 and August 22, 2012) and one letter dated September 5, 2012. (Attached as Ex. "A".)

Project Description

The Public Water Agencies acknowledge that Reclamation has discretion over inclusion/exclusion and nature of certain aspects of the project description (e.g. transfers). However, other changes are or will become mandatory (e.g. San Joaquin River Restoration Program). In response to your most recent request for comments, we direct you to our previously submitted comments submitted on July 12, 2011. (Attached as Ex. "B".) For your convenience, below is a brief summary of the comments provided in the July 12, 2011 letter.

- **Period Timeframe.** The revised project description should reduce the current timeframe. The Public Water Agencies believe that the next biological opinion(s) should cover the

continuing coordinated operations of the CVP and SWP for the period between issuance and operation of BDCP Conservation Measure 1 (new Delta conveyance facilities).

- **Transfer Window.** The current BA unnecessarily limits water transfers to a three month period – July through September. The revised BA should expand the transfer window to June through December.
- **Completed Facilities.** The project description should be updated to change the status of the Delta-Mendota Canal/California Aqueduct intertie and the expansion of Los Vaqueros Reservoir as completed projects. The document currently describes these facilities as pending.
- **San Joaquin River Restoration Program.** The increased inflows resulting from the San Joaquin River Restoration Program should be included in the project description.
- **Yuba Accord.** The current Yuba Accord expires in 2015. While the Accord provides for renewal, the amounts and timing of transfers may change.
- **Summer Additional Export Capacity.** The 2008 BA included 500 cfs of additional export capacity during the July through September period for use in making up for shortages resulting from environmental restrictions. This capacity should be retained in the updated project description.
- **FERC Relicensing Processes.** FERC relicensing processes are ongoing on the Yuba, Merced and Tuolumne Rivers. The Project Description should indicate the potential for additional outflows resulting from these processes, likely requiring some sensitivity analysis since the potential flow requirements (if any) are not now defined.
- **SWRCB South Delta Water Quality Standards.** The SWRCB is in the process of revising the water quality standards for the South Delta. The Project Description should provide for changes to the South Delta Water Quality standards that anticipate the outcome of the current regulatory process.
- **SWRCB San Joaquin River Flow Requirements.** The SWRCB is currently conducting a review of the San Joaquin River flow objectives that will potentially result in increased flow requirements. These are related to the FERC processes on the Merced and Tuolumne Rivers, as well as potentially to the San Joaquin River Restoration Program. Additionally, there may need to be some near-term revision of export and flow requirements under the current Vernalis Adaptive Management Program, which has expired and currently would result in D-1641 flow standards on the San Joaquin River that are solely the responsibility of the U.S. Bureau of Reclamation.

After the current project description is revised, it will likely be necessary to modify the modeling assumptions that will inform the new effects analysis. The Public Water Agencies

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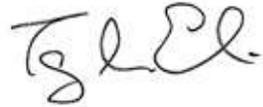
look forward to the opportunity to review and comment on the modeling assumptions as they are being revised.

Thank you for the opportunity to comment and we look forward to making additional comments as the RSE process continues. Should you have any questions, please feel free to contact Terry Erlewine or Dan Nelson.

Sincerely,



Daniel G. Nelson
Executive Director
San Luis & Delta-Mendota Water Authority



Terry L. Erlewine
General Manager
State Water Contractors

San Luis & Delta-Mendota Water Authority

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September 5, 2012

Ms. Sue Fry
 Bureau of Reclamation
 Mid-Pacific Region
 Area Manager, Bay-Delta Office
 801 I Street, Ste 140
 Sacramento, CA 95814

Dear Ms. Fry:

We are writing with respect to two documents that you circulated to the State Water Project (SWP) and Central Valley Project (CVP) contractors (Contractors) as well as other parties interested in the reconsultation process for CVP/SWP operations: the United States Bureau of Reclamation's (Reclamation) *Science Review Component of the Remand Stakeholder Engagement Process* and *Preliminary List of Names Suggested to Fulfill Reclamation Science Experts Role*. Previously, Curtis Creel provided input to you regarding these two documents via e-mail memos on August 18 and 22, and he requested additional clarifying information from Reclamation regarding the criteria that Reclamation intends to apply when selecting experts for the science panel (Panel). As of this time, despite these requests, Reclamation has not provided such information.

While we continue to believe it would be helpful for Reclamation to respond to our prior requests, we also feel it is important to provide input regarding the process currently underway. Below we set forth input regarding the areas of expertise within the Panel's purview, selection criteria for the Panel, and an alternative list of experts that could be considered for the Panel.

A. Identifying Relevant Scientific Expertise Needed for the Expert Panel

The first requirement for panel membership is that the individual be scientifically qualified to address the relevant scientific issues. "[I]f the reviewers lack requisite expertise, then the review is a futile undertaking." D.D. Murphy & P.S. Weiland, *The route to best science in implementation of the Endangered Species Act's consultation mandate: the benefits of structured effects analysis*, *Environmental Management* 47:161-172 (2010). To ensure that appropriate expertise is represented on the Science Expert Panel, it would seem logical to first identify the "core scientific issues," and then select panel members with the requisite expertise to address those issues. However, Reclamation's *Science Review Component* indicates that selection of experts will take place concurrently with, and not after, identification of the core scientific issues. Nonetheless, we recognize that the parties have a general idea of the areas of scientific expertise that will be relevant even before the core issues have been identified.

It is important to keep in mind the nature of the scientific investigation that will be reviewed or overseen by the Expert Panel. Reclamation's Biological Assessment for the operations of the CVP and SWP (BA) and the supporting data and analyses must be adequate to support scientifically-robust and defensible Biological Opinions (BiOps). Murphy and Weiland (2010) have identified the type of rigorous, structured effects analysis that is necessary for a legally and scientifically-defensible BiOp. The National Research Council (NRC) has endorsed the Murphy & Weiland approach. National Research Council, *A Review of the Use of Science and Adaptive Management in California's Bay Delta Conservation Plan* (2011), p. 19 ("The panel agree with Murphy's and Weiland's general approach.") This approach must also inform the development of the BA. As Murphy and Weiland explain, a rigorous and structured effects analysis should include collection of reliable data, particularly quantitative data on the range of stressors that affect baseline environmental conditions; integration and synthesis of data and analyses in an effects analysis that describes baseline conditions and the effects of the action on species and their habitat; and the linkage of scientific data and modeling results with management options, project scenarios, and mitigation measures, usually through population viability analyses, in order to identify the causes of species declines, the role of the proposed action in those declines, and the efficacy of measures to alleviate or compensate for project impacts. Developing a BA to support an adequate BiOp will require a broad range of expertise including expertise in the physical, chemical and biological stressors in the Delta; life cycle modeling, which should be an important part of the effects analysis; expertise in quantitative and statistical methods, given the heavy reliance on statistical investigations in Bay-Delta science; and expertise in hydrodynamic processes and modeling, among other subjects. Most importantly, experts should have an established track record of involvement in efforts to critically assess and synthesize a large amount of scientific information and incorporate that information into resource management decisions in a conservation planning milieu.

B. Additional Selection Criteria for Expert Panel Members

There are two models of panel selection. Generally, the National Research Council seeks to appoint balanced panels. The National Academies provide useful guidelines for the selection of independent peer review panels that we believe Reclamation should follow. National Academies, *Policy on Committee Composition and Balance and Conflicts of Interest* (2003). In general, an expert panel should be 1) qualified to address the relevant scientific issues and questions; 2) free of disqualifying conflicts of interests, which are usually financial; 3) not be compromised by members who are biased or lack objectivity; and 4) if some panel members do have a bias and pre-set views on scientific issues, then the committee should be balanced, and include members with different scientific perspectives and viewpoints.

As the National Academies explain, even if panel members have no financial conflict of interest and no relationship with a party interested in the proceeding, a panel member still may be biased and lack objectivity by virtue of having taken a position on a scientific issue or having been closely affiliated with a particular point of view:

An individual may have become committed to a fixed position on a particular issue through public statements (e.g., testimony, speeches, interviews, etc) through publications (e.g., articles, books, etc), through close identification or association with the positions or perspectives of a particular group, or through other personal or professional activities. This would ordinarily constitute a potential source of bias but not a conflict of interest.

(National Academies, p. 5)

Importantly, bias and lack of objectivity can rise to the level of disqualification from serving on a panel if it is severe. (*Id.* at 4.) However, in many cases, the bias issue can be addressed by ensuring balance on the panel, and including other members who have different scientific perspectives and viewpoints:

Potential sources of bias are not necessarily disqualifying for purposes of committee service, indeed, it is often necessary, in order to ensure that a committee is fully competent, to appoint members in such a way as to represent a balance of potentially biasing backgrounds or professional or organizational perspectives.

(*Id.* at 3). Also see Murphy & Weiland (2010) (“The criterion of balance places emphasis on the need to impanel a committee that represents a diversity of scientific perspectives.”)

A second model for panel selection is to appoint a conflict-free panel. If this model is adopted, then bias becomes a basis for disqualification. Conflict-free panels are often referred to as squeaky clean. Conflict-free panels rely entirely on experts who are true outsiders to conduct the review.

Since you have not provided the contractors guidance in response to repeated inquiries regarding the Bureau's selection criteria for panelists, we assume you intend to select a balanced panel rather than a conflict-free panel. We have made this assumption, in part, because the Bureau has proposed numerous panelists who would likely be disqualified from participating in a conflict-free panel due to the potential for bias.

C. List of Alternative Expert Panel Members

Based on the assumption described above, we propose the following pool of potential panelists:

- David Anderson, Colorado State University (retired)
- Ken Burnham, Colorado State University (retired)
- Andrew Cooper, Simon Frasier University
- Richard Deriso, Inter-American Tropical Tuna Commission
- Erica Fleishman, University of California, Davis
- Ray Hilborn, University of Washington
- Dennis Murphy, University of Nevada, Reno
- Barry Noon, Colorado State University
- Andre Punt, University of Washington
- Terry Quinn, University of Alaska, Fairbanks
- Thomas Quinn, University of Washington
- Gary White, Colorado State University (retired)

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We note that the majority of these persons could serve on either a balanced panel or a conflict-free panel. We also note that each of these persons is an accomplished and highly respected scholar in their own right. Each also has an established track record of involvement in efforts to critically assess and synthesize a large amount of scientific information and incorporate that information into resource management decisions in a conservation planning milieu. For these reasons, we encourage the Bureau to limit its further consideration of panelists to this list. If the Bureau does intend to select a conflict-free panel rather than a balanced panel, then we reserve the right to oppose appointment of a number of persons on the Bureau's list due to potential conflicts or perceived bias.

Yours truly,



Daniel G. Nelson
Executive Director
San Luis & Delta-Mendota Water Authority



Terry L. Erlewine
General Manager
State Water Contractors

Sent:
To:
Subject:

Follow Up Flag:
Flag Status:

Begin forwarded message:

From: "Creel, Curtis" <cCreel@kcwa.com>
Date: August 22, 2012 7:55:37 PM PDT
To: "SFry@usbr.gov" <SFry@usbr.gov>
Cc: "Beck, Jim" <jbeck@kcwa.com>, T Birmingham <tbirmingham@westlandswater.org>, "Roger Patterson (rpatterson@mwdh2o.com)" <rpatterson@mwdh2o.com>, "Dan Nelson <Dan.Nelson@sldmwa.org>" <Dan.Nelson@sldmwa.org>, "Erlewine, Terry (terlewine@swc.org)" <terlewine@swc.org>, Joan Maher <JMaher@valleywater.org>
Subject: Comments on RSEP Science Process Document

Sue,

Last week, you asked that we provide comments regarding the Science Review Component of Reclamation's Remand Stakeholder Engagement Process (RSEP Science Process). My initial plan was to provide a marked up version of the document; however, after reviewing with the Public Water Agencies (PWAs) team, we have concluded that general comments regarding the document are more appropriate at this time. The PWAs believe that, in certain respects, the RSEP Science Process document is improved relative to past iterations. At the same time, the PWAs believe further adjustments to the document are necessary.

1. The RSEP Science Process document does not reflect clearly the prerequisites for defensible independent science review. If these prerequisites are not met, then the substantive outcome of the review effort will come up short and the credibility of the endeavor will be in question. Therefore, the PWAs recommend that the RSEP Science Process document be modified to reflect Reclamation's commitment to meet these prerequisites. In short, Reclamation, as the agency seeking review, must:

- (a) avoid defining the scope of review in a manner that impedes the ability of the reviewers to conduct an impartial and complete review;
- (b) not limit the materials available to reviewers in a manner that impedes the ability of the reviewers to conduct an impartial and complete review;
- (c) ensure that reviewers are provided adequate time and resources to fulfill their task; and
- (d) establish a protocol for selecting reviewers that incorporates consideration of expertise, balance, independence, and conflicts of interest.

2. The RSEP Science Process document reserves to Reclamation the ability to define the “core scientific issues” that will be examined by the reviewers. This position seems to run contrary to the entire purpose of the RSEP Science Process, which is to develop and implement a collaborative science process to address the key questions that have been at the heart of the conflict over the last several years so that the outcome this time can be more durable. This fundamental concept must be the keystone of this effort.

The document goes on to define these issues as pertaining to “scientific and engineering analyses which are central to the findings and determinations required for biological assessments and biological opinions...” But it does not specify the findings and determinations that are required for such documents. In brief, the penultimate findings and determinations necessary are whether the action is likely to jeopardize the continued existence of one or more listed species or result in the destruction or adverse modification of habitat of one or more listed species and, if a jeopardy or adverse modification determination is made, whether it is reasonably believed that a reasonable and prudent alternative may avoid such jeopardy or adverse modification.

An effects analysis is the roadmap to such findings and determinations. At its core, the purpose of such an analysis is to establish the respective roles of the proposed action and other environmental stressors in determining the population dynamics of the listed species. The currency of an effects analysis is a population viability analysis informed by the full suite of available data respecting the listed species and its environment analyzed using prevailing quantitative tools. A more elaborate description of effects analysis can be provided.

3. The RSEP Science Process document should explain how Reclamation will use the information provided by the outside science expert panel. This is a critical shortcoming. Reclamation’s responsibility extends far beyond compiling the best available scientific information (that is, data and analyses); the agency must critically analyze that information both standing on its own and in combination with pertinent, related scientific information, catalog and select among models that will be used to integrate such information in order to describe the baseline conditions and effects of the proposed action on listed species, and link the available scientific information to resource management options. The PWAs recommend that Reclamation explain how it plans to use the information provided by the outside science expert panel.

4. The RSEP Science Process document does not recognize that the PWAs have a different status from other parties interested in the continued operation of the Central Valley Project and State Water Project (Projects). The PWAs are governmental entities that depend on the supply of water from the Projects to fulfill their core governmental functions. This is reinforced by the Endangered Species Act itself, which requires all federal agencies to cooperate with state and local governments to resolve water resource issues. 16 U.S.C. 1531(c)(2).

5. The RSEP Science Process document indicates that the outside science experts will, if possible, not be associated with any party that has an interest in the remand and NEPA processes. This would preclude numerous experts proposed by Reclamation. Reclamation should clarify what selection criteria will be used to empanel the experts.

6. We appreciate that Reclamation is setting forth a process it intends to utilize in the course of reconsultation, but we believe the federal action and consulting agencies are obliged to disclose to the invited stakeholders a process that encompasses the entire

consultation. Consultation does not end with submittal of a biological assessment to FWS or NMFS. When those agencies complete draft or final biological opinions, Reclamation will need to use that information to assess how to meet its obligations under the ESA. The panel of experts should be consulted to evaluate the analyses, assumptions, and uncertainties underlying the scientific conclusions reached in the biological opinions produced by the wildlife agencies, and Reclamation should have the benefit of the panel's analysis of those issues before it makes its decisions.

7. Before the PWAs can provide feedback on the list of potential experts that Reclamation has provided, we need a response to the question we posed to you Saturday (see email memo below). That is, whether Reclamation intends to empanel a conflict free panel or a balanced panel. When Reclamation provides a response, we will work diligently to provide timely feedback regarding potential experts.

If you have any questions or would like more detailed information regarding this matter, please contact me at 9661) [634-1400](tel:634-1400).

Curtis Creel
Water Resources Manager
Kern County Water Agency

-----Original Message-----

From: Creel, Curtis

Sent: Saturday, August 18, 2012 8:45 AM

To: Susan M Fry

Cc: Beck, Jim; Tom Birmingham; Roger Patterson; Dan Nelson; Terry Erlewine; Joan Maher

Subject: Preliminary List of Names Suggested to Fulfill Reclamation Science Experts Role

Sue,

After consulting with representatives from the Public Water Agencies (PWAs), I am providing you initial feedback regarding the document entitled Preliminary List of Names Suggested to Fulfill Reclamation Science Experts Role ("Preliminary List"), which you provided to the PWAs on August 16 prior to our meeting.

As I stated Thursday, it is not feasible for us to provide you with a substantive response at this time. We need sufficient time to (i) review the list of persons you have provided in light of the criteria Reclamation set forth in its document entitled "Science Review Component" and prevailing norms regarding selection of independent reviewers, (ii) generate names of additional candidates in coordination with our science staff, (iii) undertake both these tasks with a better understanding of whether Reclamation intends to empanel a committee with no current or prior connections with any stakeholder (including USBR, FWS, and NMFS) or a balanced committee that may include persons with stakeholder connections provided countervailing stakeholders are also represented, and (iv) coordinate among multiple PWAs to provide the Reclamation with a single response.

The PWAs will continue to meet next week to develop our recommendations for a list of science experts in a deliberate and timely manner. I will follow up with you early next week to provide a

delivery estimate for our list. In the mean time, if you can elaborate on whether Reclamation intends to empanel a conflict free panel or a balanced panel, that would speed our deliberations.

Curtis Creel
Water Resources Manager
Kern County Water Agency

On Sep 15, 2012, at 11:36 AM, "Terry Erlewine" <terlewine@swc.org> wrote:

As indicated below, we were asked to provide comments on the attached RSEP Science Process paper by next Friday, September 21. We tentatively discussed providing comments jointly under SWC-SLDMWA letterhead. Please provide any comments that you may have to Stefanie Morris by Noon, September 19. Stefanie will coordinate with Jon and Becky in developed final comments for our submittal.

Note that we have also been asked to provide comments on the RSE process and the Project description. Material related to those comments will follow. Finally, SWC-SLDMWA previously sent comments on the Science Process which I will redistribute.

From: Fry, Susan M [<mailto:SFry@usbr.gov>]
Sent: Friday, September 07, 2012 5:51 PM
To: 'bmcdonald@staff-tech.net'; 'mcdwaterpolicy@aol.com'; Idlof, Patricia S (Patti); Allen, Kaylee; 'bobker@bay.org'; 'kallaruth@gmail.com'; Obegi, Doug; 'pool94549@sbcglobal.net'; 'Poole, Kate'; 'zgrader@ifrfish.org'; Andrew Hitchings; David Guy; Greg Gartrell; Jeff Sutton; Karna Harrigfeld; Paul S. Weiland; Shauna Lorance; 'Tim O'Laughlin'; 'Ara Azhderian'; Brent Walthall; Cathy Crothers (crothers@water.ca.gov); 'Chris Daley'; Curtis Creel; 'Dale Hoffman-Floerke'; Dan Nelson; Jason Peltier (jpeltier@westlandswater.org); Jim Beck; Joan Maher <JMaher@valleywater.org> (JMaher@valleywater.org); 'Jon Rubin'; 'Kathy Kelly'; Kerckhoff, Laurence H.; Mark Cowin; 'Rebecca Sheehan'; Roger K Patterson; 'Sheila Greene'; Terry Erlewine; Tom Birmingham (tbirmingham@westlandswater.org); Castleberry, Dan; 'CDIBBLE@dfg.ca.gov'; Chotkowski, Michael; 'Garwin.Yip@noaa.gov'; Lohofener, Ren; 'Maria Rea'; Norris, Jennifer; 'rod.mcinnis@noaa.gov'; 'SCANTREL@dfg.ca.gov'; 'will.stelle@noaa.gov'; 'jmharty@kearnswest.com'; Carl Wilcox; Milligan, Ronald E; Garcia, Donna; Fullerton, David K; 'Leah Orloff'; 'imasouredis@mwdh2o.com'; 'Cindy Kao'
Cc: 'Thad Bettner'; 'Leah Orloff'; 'Wendy Chriss'; 'Karen Clark'; Chotkowski, Michael; Amelia Minaberrigarai; 'Laurie Murray'; 'Poole, Melissa'; 'Phillimore, Bill'; 'Cindy Kao'; 'William Paris III'; Fujitani, Paul E; Kiteck, Elizabeth G; Washburn, Thuy T; 'ryan.wulff@noaa.gov'
Subject: August 12th Draft Science Review Component Paper

Hello Everyone. Thank you for your participation in the Remand Stakeholder Engagement Process kick-off meeting earlier today. Reclamation appreciates your participation and looks forward to working with each of you.

Per our discussion at the meeting, please find attached the August 12, 2012, draft paper on the "Science Review Component of the Remand Stakeholder Engagement Process" which was referenced at this afternoon's kickoff meeting of invited stakeholders for the RSE process. As indicated at the meeting, please provide your comments electronically by Friday, September 21, by emailing them to RemandSEP@usbr.gov. You may provide them in any format you like, including track changes to the attached document.

For those invited stakeholders who were informally invited to review this draft paper in mid-August, you need not resubmit your comments. However, you are welcome to expand upon them if you like.

Sincerely, Sue Fry

Sue Fry

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<RSEP Science Rev Process_8-12-12 Updated v2 McD Draft.docx>

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July 12, 2011

Mr. Michael L. Connor
Commissioner, Bureau of Reclamation
Department of the Interior
1849 C Street NW
Washington DC 20240

Mr. Mark Cowin
Director, Department of Water Resources
Department of Water Resources
P.O. Box 942836, Rm. 1115-1
Sacramento, CA 94236-0001

Re: Reconsultation regarding Central Valley Project and State Water Project Operations under Section 7(a)(2) of the Endangered Species Act

Dear Commissioner Connor and Director Cowin:

The State Water Contractors and the San Luis & Delta-Mendota Water Authority (“Public Water Agencies”) urge you to complete a new biological assessment (“BA”) to inform the development of the biological opinion on the joint operation of the State Water Project (“SWP”) and Central Valley Project (“CVP”). In light of the short timelines for completion of the biological opinion established by the Court, the Public Water Agencies are concerned that the Bureau of Reclamation (“Reclamation”) and the Department of Water Resources (“DWR”) are inclined to hurriedly patch together an amendment to the outdated 2008 BA prepared for the prior consultation, rather than prepare a new BA that considers changes in projects’ operations and scientific understanding that have occurred since that time. Protracted litigation, court established deadlines, and the series of invalidated biological opinions underscore the importance for Reclamation and DWR to prepare a new BA with rigorous analysis using the best available science.¹

In the BA, Reclamation and DWR have the obligation to "...evaluate the potential effects of the action on listed and proposed species and designated and proposed critical habitat and determine whether any such species or habitat are likely to be adversely affected by the action..." (50 C.F.R § 402.12(a).) This analysis is central to the biological opinion, an opinion that has suffered from many analytical flaws in the past. As Judge Wanger observed, "...the public cannot afford sloppy science and uni-directional prescriptions that ignore California’s water needs." (Consolidated Delta Smelt Cases, 1:09-cv-00407-OWW-DLB, Doc. No. 757, p. 218.)

At a minimum, Reclamation and DWR must provide an updated and accurate description of the operation of the SWP and CVP. To do otherwise is jeopardizing the integrity of the new biological opinion. There have been substantial changes in project operations, and these changes must be described and analyzed in the new BA. These changes include, but are not necessarily limited to: the San Joaquin River Restoration Program, Yuba Accord, FERC Relicensing and the San Joaquin

¹ See attached letter to Rowan Gould and Michael Connor dated June 29, 2011 from Public Water Agencies and the Coalition for a Sustainable Delta regarding reconsultation.

River Agreement. The description of the water transfer window should also be modified to reflect the ability to transfer water at other times of the year.

Reclamation and DWR should further refine the project description to reflect a shorter duration of implementation, covering 5-10 years rather than 20 years. A multi-decade biological opinion is unnecessary because the Bay Delta Conservation Plan ("BDCP") is scheduled for completion in 2012, the approval of which will require a new section 7 consultation. Moreover, the BDCP does not currently contain near-term water project operations. It would therefore be appropriate for the next BiOp to cover the interim period before implementation of the BDCP long-term water project operations, which is scheduled for implementation 10 years after approval of the BDCP.

Under the ESA regulations, it is not enough to merely update the project description, as Reclamation and DWR must also analyze the proposed operations. In completing this analysis, Reclamation and DWR must substantially revise the description of baseline conditions and the analysis of the effects of the project. Since the 2008 BA, the environment has changed, and our scientific understanding of the environment has advanced significantly. In a subsequent letter, Public Water Agencies will be providing a detailed description of the advances in scientific understanding and updated baseline conditions. These scientific advances include, but are not limited to, the following:

The new BA must describe baseline conditions in the Sacramento River, including the effects of the Sacramento Regional County Sanitation District's ("Sanitation District") discharge. In December 2010, the Central Valley Regional Water Quality Control Board ("Regional Board") found that the Sanitation District's discharge is causing toxic conditions in the Sacramento River that are likely affecting Delta smelt, stating:

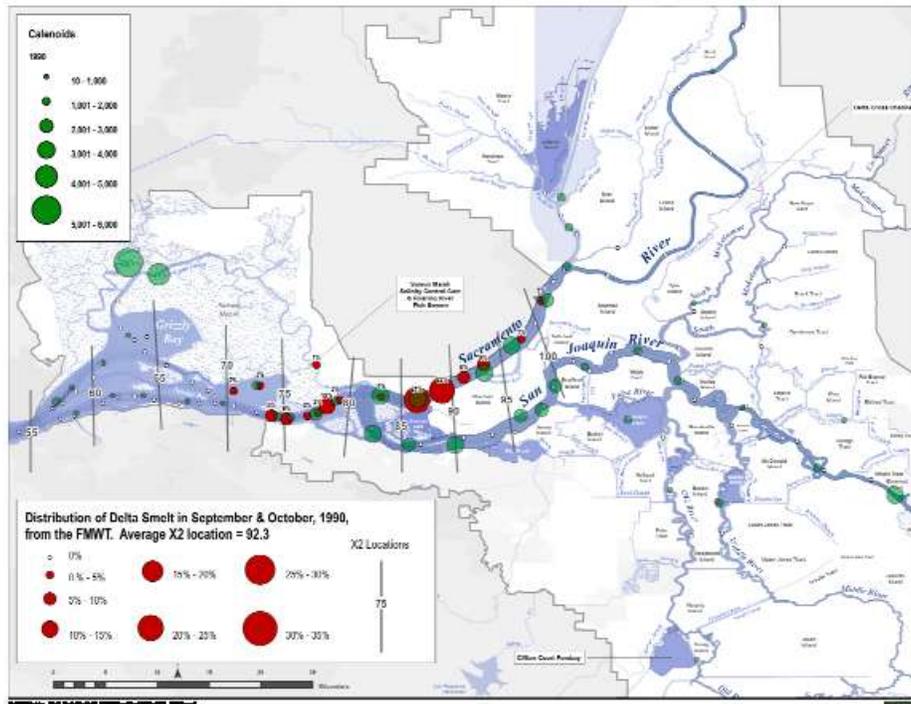
Scientific experts have expressed concern that ammonia levels in the Sacramento River and Delta could be chronically toxic to smelt. Recent experiments found that the ammonia in the discharge is causing chronic toxicity in the Sacramento River for 30 miles downstream of the discharge to *Eurytemora affinis* and *Pseudodiaptomus forbesi*, both invertebrate species that are important forage organisms for larval fish. Existing concentrations of ammonia are also stopping the growth of diatoms (a type of algae) as far downstream as Suisun Bay, which also reduces the food supply for the aquatic ecosystem.

(Staff Report, Proposed NPDES Permit Renewal and TSO, Sacramento Regional County Sanitation District, Sacramento Regional Wastewater Treatment Plant, p. 13.)

In a December 2010 order, the Regional Board directed the Sanitation District to upgrade its treatment plant to tertiary treatment. The Regional Board's conclusion is based on numerous scientific papers, several of which were finalized since the last BA.

The new BA should also describe the distribution of delta smelt, as the majority of the population is not centered at X2, as had been hypothesized. Delta smelt are widely distributed, primarily inhabiting the Sacramento Deep Water Ship Channel, Cache Slough, and Suisun Marsh. There are also interesting relationships between Delta smelt distribution and food supplies. As Dr. Charles Hanson recently testified, "...the best available data show that delta smelt distribution, survival, reproduction, and food supplies, when examined on a month by month basis using FMWT, 20 mm,

CDFG zooplankton, and STN data are unrelated to the location of X2.” (Consolidated Delta Smelt Cases, 1:09-cv-00407-OWW-DLB, Doc. No. 914, Declaration of Charles Hanson, Ph.D., in Support of Plaintiffs’ Motion for Injunctive relief, pp. 3-4.) These relationships are graphically illustrated below (**Graph 1**).



Graph 1. Comparison of Delta smelt distribution to distribution of calanoid copepods.

The state of our collective understanding of fall X2 has also advanced significantly. The NRC panel reviewed the fall X2 RPA, and concluded the Fall X2 action was “...based on a series of linked statistical analyses ... with each step being uncertain. The relationships are correlative with substantial variance being left unexplained at each step. The action also may have high water requirements and may adversely affect salmon and steelhead under some conditions... As a result, how specific X2 targets were chosen and their likely beneficial effects need further clarification.” (NRC Report at p. 41) The NRC report also found that independent peer review of the Fall X2 management action was needed because of “...the uncertainty about the biological effectiveness of the action and its high water requirements.” (*Id.*)

The NRC conclusions are further strengthened by the work of Dr. Paul Hutton. When Dr. Hutton examined the entire hydrologic record from 1930 to 2010 to identify monthly locations of X2, including time periods when Delta smelt abundance was not a concern, Dr. Hutton found that the trend of Fall X2 location in September over the 81 year period was actually marginally *westward* (towards Suisun Bay and the Golden Gate), not easterly. He also found that changes in X2 location in October and November have been minor over the years; that these minor shifts are mainly due to factors beyond the control of the projects, like precipitation patterns, and that there has been little change in the variability of Fall X2 location over the decades. (Consolidated Delta Smelt Cases, 1:09-cv-00407-OWW-DLB, Doc. No. 927, Declaration of Paul Hutton Ph.D in Support of Plaintiffs’ Motion for Injunctive Relief, pp. 3-6.)

Dr. Kenneth Burnham, a widely-recognized expert in ecological sampling and data analysis, also evaluated the fall X2 hypothesis, focusing on the statistical issue identified by NRC as well as other methodological flaws in the studies by Mr. Frederick Feyrer which provide the core scientific justification for the Fall X2 management action. Dr. Burnham, who spent more than 30 years as a statistician and senior scientist in the U.S. Department of the Interior and is a co-author of the seminal work, Burnham, K. P. and D. R. Anderson, *Model Selection and Multimodel Inference: A Practical Information-Theoretical Approach* (2d Ed. 2002). Springer-Verlag, reviewed the Feyrer work that the Federal Agencies rely upon in the Draft Management Plan, and concluded:

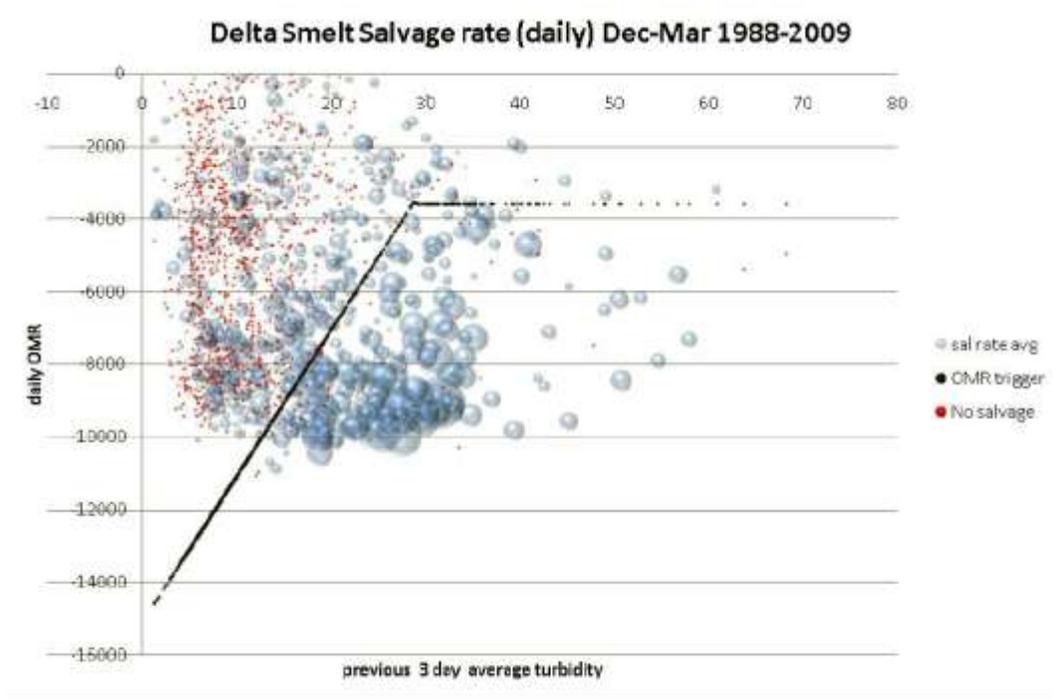
Based on my review of the available data analyses, the analyses of smelt abiotic habitat in Feyrer (2007), Feyrer (2008) and Feyrer (2010) are fundamentally flawed, and cannot properly be used to estimate the effect of changes in X2 management on smelt habitat volume, which was the intended purpose. However, even if Mr. Feyrer's analyses could be used to predict changes in the amount of available abiotic habitat for smelt, there is no statistical evidence that changes in X2 have any effect on smelt abundance. More recent studies, such as Kimmerer (2009) and Maunder and Deriso (2011) show that X2 is not relevant to smelt abundance, and that other factors, such as food supply, are most likely driving changes in the smelt's population level.

(Consolidated Delta Smelt Cases, 1:09-cv-00407-OWW-DLB, Doc. No. 921, Declaration of Dr. Kenneth P. Burnham in Support of Plaintiffs Motion for Injunctive Relief, ¶ 39.)

Dr. Richard Deriso has also evaluated the Feyrer papers. Dr. Deriso is the chief scientist for the Tuna-Billfish Program. He has a PhD in Biomathematics, and is a professor with over 50 peer reviewed publications. His conclusions are consistent with those of Dr. Burnham, as Dr. Deriso also found errors in the statistical approach used to develop the Fall X2 RPA, ultimately concluding that there is not even a weak relationship between the location of fall X2 and changes in Delta smelt abundance. (Consolidated Delta Smelt Cases, 1:09-cv-00407-OWW-DLB, Doc. No. 922, p. 11.)

There are new analytical tools available to the agencies for use in this BA as well. Based on the relationship between turbidity and adult Delta smelt entrainment, Dr. Richard Deriso has developed real time operational criteria that reduces entrainment while optimizing water operations (**Graph 2**).

As illustrated in Graph 2, points to the left of the line, with lower turbidities, have either no salvage or low salvage. Points to the right of the line, with higher turbidities, have higher salvage. With monitoring locations at either Clifton Court and/or at other interior Delta locations, turbidity originating from the Sacramento River can be identified and pumping rates adjusted accordingly, based upon real-world conditions, to avoid large entrainment events. Thus, the Deriso adult delta smelt entrainment model represents a previously unavailable real time management tool that identifies the appropriate OMR based upon monitoring data as opposed to conjecture.



Graph 2. Daily OMR compared to previous 3 day average turbidity.

The BA must also respond to Judge Wanger’s decision regarding the importance of using available life cycle models. In his decision, Judge Wanger concluded:

It is undisputed that applications of a quantitative life cycle model is the preferred scientific methodology. Based on the preponderance of expert testimony, FWS made a conscious choice not to use expertise available within the agency to develop one. A court lacks authority to require completion of a life-cycle model. In light of uncontradicted expert testimony that life-cycle modeling is necessary and feasible, FWS’s failure to do so is inexplicable.

(Delta Smelt Consolidated Cases, Case No. 1:09 CV 01201 OWW DLB, Docket No. 757, Memorandum Decision Regarding Cross Motions for Summary Judgment, pp. 52-53.)

The science has advanced since the last BA and biological opinion. There is a life cycle model available to the agencies, the Delta smelt life cycle model created by Drs. Maunder and Deriso. The model is published and has been presented to the agencies on several occasions.² The Maunder-Deriso life cycle model should be used in the BA.

Public Water Agencies can provide assistance in the development of the new BA and biological opinion. As directed by the ESA and its regulations, Public Water Agencies formally requested applicant status on June 3, 2011 (attached). We requested applicant status in the Delta smelt

² Drs. Maunder and Deriso presented their model to the federal agency biologists in August 2010 during the Bay Delta Conservation Plan (“BDCP”) Theme Team meetings; to the larger scientific community at the Estuarine Ecology Team (“EET”) meeting in November 2010; and to the state and federal agency biologists at a Department of Water Resources (“DWR”) hosted event for the BDCP in April 2011.

Commissioner Connor and Director Cowin

July 12, 2011

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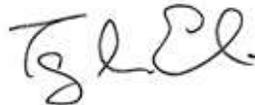
consultation because the resulting biological opinion directly affects our ability to perform our statutory, fiduciary, and contractual functions. Public Water Agencies also requested applicant status because we have substantial scientific resources available that would assist Reclamation, DWR and the FWS during the consultation process. Availability of these resources will assure the use of the best available science facilitate an expeditious conclusion of the new consultation, and minimize the potential for future conflict. Since the consultation is underway and a draft biological opinion is expected in October, we urge Reclamation and the Department of the Interior to immediately grant the request for applicant status.

We look forward to your expeditious response, If you should have any questions, please feel free to contact Terry Erlewine at (916) 447-7357 ext 203 or Ara Azhderian at (209) 826-9696. We appreciate your time and consideration.

Very truly yours,



Daniel G. Nelson
Executive Director
San Luis & Delta-Mendota Water Authority



Terry L. Erlewine
General Manager
State Water Contractors

Attachment

cc: The Honorable David Hayes, Deputy Secretary, Department of the Interior
The Honorable Mike Connor, Commissioner, Bureau of Reclamation
Mr. Rowan Gould, Acting Director, Fish and Wildlife Service
The Honorable Diane Feinstein, California Senator
The Honorable Barbara Boxer, California Senator
The Honorable Mike Thompson, Congressman, CA01
The Honorable Dennis Cardoza, Congressman, CA18
The Honorable Jeff Denham, Congressman, CA 19
The Honorable Jim Costa, Congressman, CA20
The Honorable Norm Dicks, Congressman, WA06
Donald McIsaac, Executive Director, Pacific Fishery Management Council
John McCamman, Director, California Department of Fish and Game
Jim Kellogg, President, California Fish and Game Commission

San Luis & Delta-Mendota Water Authority



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State Water Contractors, Inc.



1121 L Street, Suite 1050
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Coalition for a Sustainable Delta

June 29, 2011

VIA U.S. MAIL

Rowan W. Gould
Acting Director, Fish and Wildlife Service
U.S. Department of the Interior
1849 C Street, NW
Washington DC 20240

Michael L. Connor
Commissioner, Bureau of Reclamation
Department of the Interior
1849 C Street NW
Washington DC 20240

Re: Reconsultation regarding Central Valley Project and State Water Project
Operations under Section 7(a)(2) of the Endangered Species Act

Dear Acting Director Gould and Commissioner Connor,

We are submitting this letter to you in order that the Bureau of Reclamation (Bureau) and Fish and Wildlife Service (Service) will consider its contents as well as the attached materials in the course of preparing a new biological assessment and biological opinion for continued operation of the Central Valley Project (CVP) and State Water Project (SWP).

On March 28, 2011, the United States District Court for the Eastern District of California ordered the Service to prepare a new biological opinion that considers the impacts of CVP and SWP operations on the delta smelt and its critical habitat. The procedures that govern preparation of a biological opinion and related documents are set forth in section 7 of the Endangered Species Act (ESA) as well as the joint consultation regulations, 50 C.F.R. pt. 402. Section 7(a)(2) requires every federal agency, including the Bureau, to consult with the Service when its actions may affect listed species, such as the threatened delta smelt. A critical component of any biological opinion is the Service's effects analysis. The effects analysis is the central component of an assessment of the effects of a proposed action (here, continued CVP and SWP operations) on the listed species (here, the delta smelt) taking into account the environmental baselines and cumulative effects in order to determine whether the action is likely

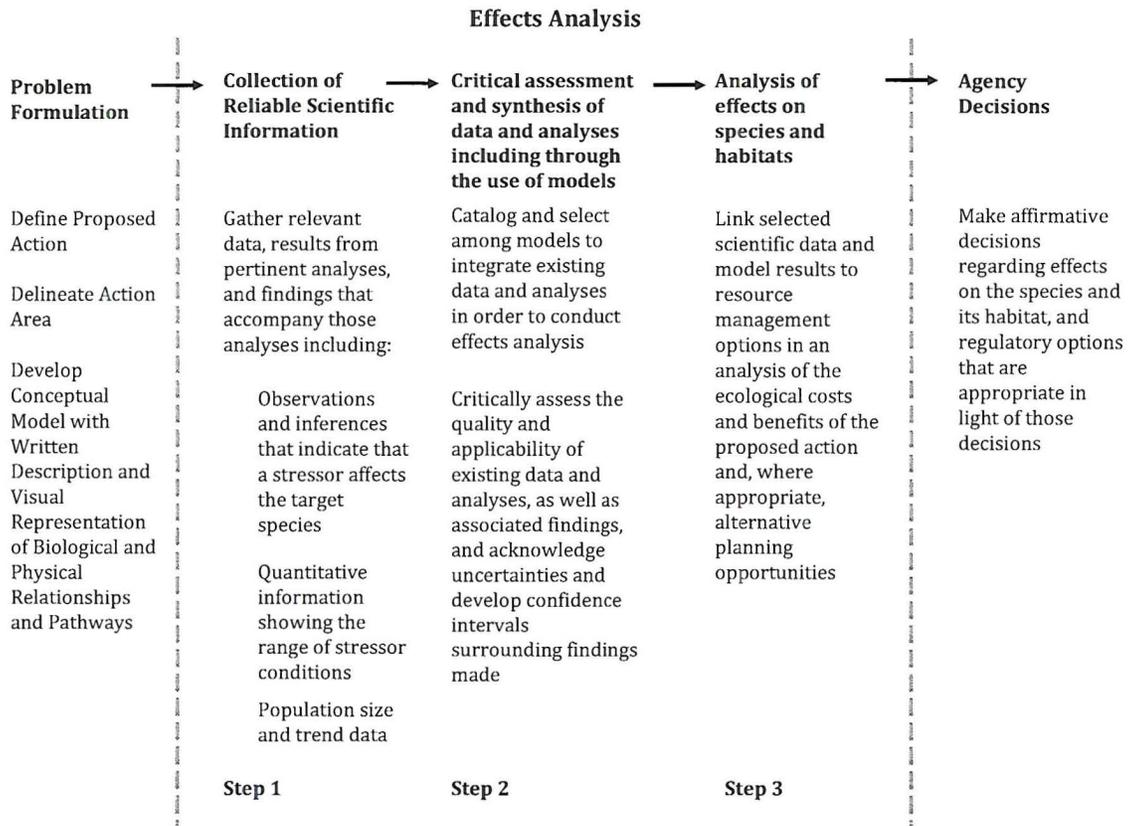
to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat of such species. 16 U.S.C. § 1536(a)(2).

To determine the effects of the action, the Service must first properly define the current status of the species and the environmental impacts to the species that would exist regardless of whether the action moved forward -- that is, the environmental baseline. 50 C.F.R. § 402.02. Defining the environmental baseline is necessary because the baseline gives the Service the point of reference against which to determine whether the effects of the action, when added to that baseline, are likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. The purpose of evaluating the effects of the action in the context of the environmental baseline is straightforward: the likelihood that those effects will jeopardize the continued existence of the species is interrelated with the status and trends of populations of the species in the wild. It is for this reason that the United States Court of Appeals for the Ninth Circuit held that under section 7 it is necessary to consider the effects of the action in the context of other existing human activities that impact the listed species. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 930 (9th Cir. 2008).

Consideration of the effects of the action in the context of the environmental baseline does not relieve the Service of its obligation to distinguish between the effects of the action and the environmental baseline. Rather, the Service must distinguish between the two in light of the section 7(a)(2) requirement to determine whether the "agency action" is likely to jeopardize the continued existence of the species. 50 C.F.R. § 402.14(g)(3), (h)(2). The requirement that the Service distinguish the effects of the action from the effects of the environmental baseline is necessary so that the agency can determine the extent of harm to the species attributable to the proposed action and then make the legal determinations contemplated in section 7(a)(2).

Completion of an effects analysis is a stepwise process that includes: collection of relevant data, results from pertinent analyses, and findings that accompany those analyses; the critical assessment and synthesis of available data and analyses derived from those data using quantitative models; and the analysis of the effects of the action on the listed species and its habitat. The steps are set forth in the figure below, reproduced from Murphy and Weiland (2011).

Effects analysis is analogous in many respects to cumulative risk assessment (NRC 2009, EPA 2003). In our view, one key reason that the 2008 biological opinion was declared unlawful was that the Service failed to complete an effects analysis linking available data and analyses to an agency determination through an assessment of effects of the proposed action on the species using available quantitative models.



In a recent report regarding the draft Bay Delta Conservation Plan, a National Research Council (NRC) Committee laid out the necessary elements of an effects analysis in detail (NRC 2011). The Committee stated that “the first element of any effects analysis must be an integrated description of the components of the system and how they relate to one another” (Id., p. 19). The second element set forth by the Committee is “collection, review and critical assessment of the best relevant scientific information available” (Id., p.19). The final element is representation of “the dynamic response of the system” to the proposed action (Id., p.20). In a complex system such as the Delta, the Committee explains that this final element properly involves use of multiple models to allow for the assessment of the responses of the species and different components of the ecosystem that support it to the proposed action, as well as any alternative management actions.

The NRC Committee reaffirmed a conclusion it reached in a prior report that the Service should use quantitative models, where possible, when conducting effects analysis (NRC 2010). This observation is consistent with the views of Court-appointed experts in the recent delta smelt litigation that “[t]he ideal way to assess the relative role of each of these stressors is to develop a population dynamics model which captures the temporal and spatial dynamics of delta smelt as well as those of the various stressors, and to use standard peer-reviewed statistical methods to assess the impact of those stressors given variability in population dynamic processes (survival

Acting Director Gould and Commissioner Connor

June 29, 2011

Page 4

in particular) as well as the uncertainty associated with the various data sources” (Ex. A to Order Transmitting Responses from 706 Experts, Doc. 633-2). Two quantitative, life-cycle models for delta smelt exist; both are the subject of papers submitted to peer-reviewed scientific journals (Maunder and Deriso, under review; Miller et al. under review).

In order to ensure that the Bureau and the Service give adequate consideration to this essential information in the course of preparing a new biological assessment and biological opinion for continued operation of the CVP and SWP, we are providing along with this letter all of the scientific information referenced herein. We respectfully request completion of an effects analysis that includes each of the required elements outlined above and described in further detail in the cited material. That analysis must, in our view and the view of every expert to consider the issue, incorporate use of quantitative life cycle-models to assess the impacts of continued CVP and SWP operations on delta smelt. Further, we request that these materials be made part of the administrative record for the biological assessment and biological opinion. If you have any questions or would like to discuss any of these matters, please do not hesitate to contact me.

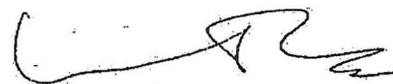
Sincerely,



Daniel G. Nelson
Executive Director
San Luis & Delta-Mendota
Water Authority



Terry L. Erlewine
General Manager
State Water Contractors



William D. Phillimore
Board Member
Coalition for a Sustainable Delta

Enclosures

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June 3, 2011

The Honorable Kenneth Salazar
Secretary of the Interior
1849 C Street NW
Washington, DC 20240

Dear Secretary Salazar:

As you know, on March 28, 2011, the United States District Court for the Eastern District of California ordered the United States Fish and Wildlife Service (FWS) to prepare a new biological opinion that considers the impacts of State Water Project (SWP) and Central Valley Project (CVP) operations on the delta smelt and its critical habitat. The procedures that govern preparation of a biological opinion and related documents are set forth in section 7 of the Endangered Species Act (ESA) as well as regulations that implement section 7, 50 C.F.R. pt. 402. Section 7(a)(2) requires every federal agency, including the United States Bureau of Reclamation (Bureau), to consult with FWS when its actions may affect listed species, such as the delta smelt. The consultation will necessarily address Delta operations of the SWP and CVP. For the reasons presented below, the public water agencies that are members of the State Water Contractors¹ (SWC) and San Luis & Delta-Mendota Water Authority² (SL Authority) are integral to that consultation, and have considerable scientific expertise that has already been recognized by the United States District Court in the above referenced judicial proceedings. The SWC and the SL Authority can—and, if provided the opportunity to do so, will—bring that expertise to the table in the re-consultation process. Because Congress mandates that federal agencies must “use the best scientific and commercial data available” in fulfilling the requirements set forth in section 7, and Congress specifically requires Federal agencies to “cooperate” with state and local agencies to resolve water resource issues “in concert” with the conservation

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- ¹ The SWC represents 27 public agencies that contract with the State of California for water from the State Water Project (SWP). These agencies are each organized under California law and provide water supplies to nearly 25 million Californians and 750,000 acres of prime farmland from Napa County to San Diego and points between. A list of the SWC member agencies is included in **Attachment 1**.
 - ² The Authority, which was formed in 1992 as a joint powers authority, consists of 29 member agencies, 27 of which contract with the United States Department of the Interior, Bureau of Reclamation (Reclamation), for supply of water from the federal Central Valley Project (CVP). The Authority’s member agencies hold contracts with Reclamation for the delivery of approximately 3.3 million acre-feet of CVP water. CVP water provided to the Authority’s member agencies supports approximately 1.2 million acres of agricultural land, as well as more than 100,000 acres of managed wetlands, private and public, in California’s Central Valley. The Authority’s member agencies also use CVP water to serve more than 1 million people in the Silicon Valley and the Central Valley. A list of the Authority’s member agencies is included in Attachment 1.

of endangered species, the SWC and the SL Authority request that they be afforded applicant status in connection with the upcoming delta smelt re-consultation.

The requirement to cooperate with both state and local agencies when undertaking actions that involve water resources is set forth in section 2(c)(2) of the ESA. There, Congress declared it is “the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species.” 16 U.S.C. § 1531(c)(2). The definition of “cooperate” is to “work or act together toward a common end or purpose.” The American Heritage Dictionary of the English Language 404 (4th ed. 2006). The word “cooperate” as used in section 2(c)(2) of the ESA should be accorded its plain meaning and, therefore, requires the two-way exchange of information rather than one-way opportunities to submit information.

Recently, the Ninth Circuit rendered a decision in *California Wilderness Coalition v. United States Department of Energy*, 2011 U.S. App. LEXIS 1957 (9th Cir. Feb. 1, 2011), which plainly indicates that the obligation on the part of federal agencies to “cooperate” with “local agencies” in resolving water resource issues under the ESA means substantially more than simply providing an opportunity for notice and comment. Interpreting a provision of the Federal Power Act that required the Department of Energy (DOE) to issue, “in consultation with affected States,” a study that could lead to the designation of certain electric transmission corridors for heightened federal control, the court concluded the term “consultation” means that DOE was required to “confer with the affected states before it completed the study.” *Id.* at *27-28. The Ninth Circuit reached this conclusion by examining “the language itself, the specific context in which that language is used and the broader context of the statute as a whole.” *Id.* at *22.

According to its plain meaning, “cooperate” requires more than “consult,” which the Ninth Circuit defined as “to ‘seek information or advice from (someone with expertise in the area)’ or to ‘have discussion or confer with (someone), typically before taking a course of action.’” *California Wilderness* at *27 quoting The New Oxford Dictionary 369 (2001). In contrast to “consult,” “cooperate,” by definition, requires a degree of collaboration and a significant contribution by each of the cooperating parties to the end result; *i.e.*, it contemplates the input provided a section 7 consultation by an “applicant.”

In addition to the requirement to cooperate imposed on Federal agencies by section 2(c)(2) of the ESA, Congress directed in section 7 itself that Federal agencies cooperate with “applicants.” 16 U.S.C. § 1536(a)(3). An “applicant” is generally allowed to: provide information for the FWS’s consideration; discuss with FWS the agency’s review and evaluation of the available data and the effects of the action under consultation; and review and comment on a draft biological opinion, including the basis for any findings in the biological opinion and the availability of reasonable and prudent alternatives (if it is a jeopardy opinion). 50 C.F.R. § 402.14(g)(5). An “applicant” is any person requiring formal approval or authorization from a federal agency as a prerequisite to conducting the action.

50 C.F.R. § 402.02. The FWS's consultation handbook explains that in identifying an applicant, the federal action(s) should be understood to involve not only the approval of a permit or license, but also the activities resulting from such permission. Endangered Species Consultation Handbook 2-12 (March 1998). A user of resources that is directly involved in the activity or activities resulting from the federal action is a proper applicant. *Id.*

Furthermore, granting the contractors applicant status gives meaning to the spirit of the "Coordination and Cooperation" clause in CVP water service contracts, reproduced below.

Coordination and Cooperation

19. (a) In order to further their mutual goals and objectives, the Contracting Officer and the Contractor shall communicate, coordinate, and cooperate with each other, and with other affected Project Contractors, in order to improve the operation and management of the project. The communication, coordination, and cooperation regarding operations and management shall include, but not be limited to, any action which will or may materially affect the quantity or quality of Project Water supply, the allocation of Project Water supply, and project financial matters including, but not limited to, budget issues. The communication, coordination, and cooperation provided for hereunder shall extend to all provisions of this contract. Each party shall retain exclusive decision-making authority for all actions, opinions, and determinations to be made by the respective party.

Here, SWP and CVP water is the primary, and in some cases only, source of water for approximately 25 million Californians and millions of acres of highly productive agricultural land served by the SWC and SL Authority member agencies. Farmers of these lands use the water provided by the CVP and SWP from the Delta to produce approximately 50 percent of all of the fruits, nuts, and vegetables consumed within the United States. Reclamation's consultation with FWS will directly affect the ability of the public water agencies that constitute the SWC and SL Authority to perform their core statutory and contractual functions, including their ability to deliver water to California cities, farms, and ranches. Under California law, the SWP contractors and the SL Authority are integral to DWR's and Reclamation's rights to divert water. They provide the "beneficial use" that is essential to the consummation of any water right in California, including the water rights held for both the CVP and SWP. Moreover, the SL Authority is responsible for the actual operation of many CVP facilities, including the Delta Cross Channel Gates, the C.W. "Bill" Jones Pumping Plant and the Delta-Mendota Canal, while SWC member agencies provide virtually all of the funding necessary for the operation of the SWP. The consultation will directly affect the operational activities of the SL Authority and it will also impact the ability of the SWC member agencies to provide the funding

necessary for the State of California to repay the debt obligations of the SWP. Thus, the SWC and the SL Authority have a vital role in the actions that are the subject of the consultation.

Further, the United States District Court in the *Consolidated Delta Smelt Cases* has left no doubt that, FWS failed to "use the best scientific and commercial data available" in its 2008 biological opinion. That is evident from the scientific data produced by the SWC and the SL Authority as part of their challenge to that opinion, including proceedings for injunctive relief. This scientific data includes analysis by preeminent experts in quantitative analysis of population dynamics. The ESA requires FWS to both compile and use the "best available commercial and scientific data" when preparing a biological opinion, and the SWC and the SL Authority have already demonstrated their ability to advance the science Congress intended to serve as the basis for such an opinion.

In light of the scientific expertise that the SWC and SL Authority can offer, and their direct operational, legal, and financial interests in the activities under consultation, the SWC and SL Authority believe their active participation in the consultation is not only appropriate, but necessary. We therefore request that Reclamation allow our organizations to participate, as applicants, on behalf of our member agencies. To that end we offer the following issues for Reclamation's consideration as the re-consultation ordered by the United States District Court begins.

1. Integrated Biological Opinion. First, we believe all parties are best served by preparation of an "integrated" biological opinion. By this, we mean a BiOp that addresses *both* the listed fish within the jurisdiction of FWS and the National Marine Fisheries Service (NMFS). This is consistent with the letter you sent to members of the Federal Bay-Delta Leadership Committee on May 3, 2010, along with Secretary Locke announcing an inter-agency plan to develop a single, integrated biological opinion for the California Bay-Delta and related water operations. While we recognize the development of an integrated BiOp may take more time at the outset, we believe integration will ultimately expedite the conclusion of the ESA consultation process for all parties concerned, including FWS and NMFS. Furthermore, the National Research Council (NRC) Committee on Sustainable Water and Environmental Management in the California Bay-Delta expressly called for the integration of reasonable and prudent alternatives (RPAs) to address the effects of Project operations on the listed species (NRC 2010). In short, an integrated BiOp has the potential to benefit both the stakeholders and the species.

To avoid impacting the time schedule recently ordered by the Court, we also believe the draft BiOp, due October 1, should not include an RPA or reasonable and prudent measures (RPMs). It is doubtful that an RPA that satisfies the substantive requirements of the consultation regulations, 50 C.F.R. § 402.02, can be competently produced within such

a period. Further, because the Government has already represented to the Court that the draft BiOp will not control the operation of either the CVP or SWP pending the adoption of a final BiOp, there appears to be no need for the inclusion of an Incidental Take Statement. Development of a single, integrated biological opinion will allow the federal agencies to account for the effects of the Projects and any RPAs or RPMs on all of the listed species. And, candidly, in the event of future litigation, it will conserve judicial resources.

2. Effects Analysis. Second, FWS is required, as a matter of law, to complete an effects analysis in order to inform its determination whether continued Project operations as described by Reclamation and DWR in an updated project description are likely to jeopardize the continued existence of delta smelt or result in the destruction or adverse modification of the species' critical habitat. Completion of an effects analysis is a stepwise process that includes: collection of relevant data, results from pertinent analysis, and findings that accompany those analyses; the critical assessment and synthesis of available data and analyses derived from those data using quantitative models; and the analysis of the effects of action on the listed species and its habitat (Murphy and Weiland 2011). It is analogous in many respects to cumulative risk assessment (NRC 2009, EPA 2003). In our view, one key reason that the 2008 BiOp was declared unlawful was that FWS failed to complete an effects analysis that links available data and analyses to an agency determination through an assessment of effects of the proposed action on the species using available quantitative models.

In a recent report regarding the draft Bay Delta Conservation Plan, an NRC Committee laid out the necessary elements of an effects analysis in detail (NRC 2011). The NRC Committee reaffirmed a conclusion reached by a prior NRC Committee that FWS should use quantitative models, where possible, when conducting effects analysis (NRC 2010). This observation is consistent with the views of the Court-appointed experts in the litigation that, for example, "[t]he ideal way to assess the relative role of each of these stressors is to develop a population dynamics model which captures the temporal and spatial dynamics of delta smelt as well as those of the various stressors, and to use standard peer-reviewed statistical methods to assess the impact of those stressors given variability in population dynamic processes (survival in particular) as well as the uncertainty associated with the various data sources" (Exh. A to Order Transmitting Responses from 706 Experts, Doc. 633-2). Two quantitative, life-cycle models for delta smelt exist, and one is the subject of an article that is in press while the other is the subject of an article that is under review (Maunder and Deriso, in press; Miller et al. under review). Further, given the Court's findings about the lack of scientific data and analyses supporting the analysis of indirect effects of the proposed action, FWS should undertake the effects analysis without the pre-set notion that it will result in a jeopardy determination. FWS must also take care to apply the reasonably certain to occur standard for indirect effects, a standard that the Court found FWS neglected to apply in the previous BiOp.

3. Project Description. The project description should be updated from the previous OCAP Biological Assessment. That update should include, among other changes, implementation of the San Joaquin River Restoration Program. Further, the project description should not attempt to include the RPA actions from the existing BiOp. Those actions have already been found invalid by the United States District Court after a thorough review of the administrative record and the consideration of substantial expert testimony. Moreover, RPA actions are appropriate only if a new effects analysis first properly determines that Project operations will jeopardize the species or result in the destruction or adverse modification of critical habitat. As discussed above, the draft BiOp should not prejudice that determination. Instead, it is appropriate for FWS to conduct a new effects analysis without a preordained conclusion.

We believe the agencies should consider changes to the project description to include measures that would promote recovery of the delta smelt without further loss of water supplies. In particular, the agencies should consider including a range of habitat restoration measures as part of the proposed action. The agencies should consult with the water agencies to discuss potential projects and available resources to accomplish such restoration.

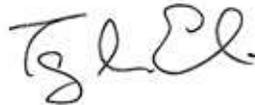
4. What We Bring to the Table. Individually and collectively, the public water agencies have substantial scientific resources that will be of assistance to the Government in the re-consultation process. We are prepared to offer these resources upon your request in order to assure use of the best available science and to facilitate an expeditious conclusion of the new consultation.

Thank you for considering our request. For your convenience, we have attached a list of references that are cited in our letter (**Attachment 2**). We look forward to your written response. If you have any questions, please contact either of us.

Very truly yours,



Daniel G. Nelson
Executive Director
San Luis & Delta-Mendota Water Authority



Terry L. Erlewine
General Manager
State Water Contractors

Attachment

The Honorable Kenneth Salazar

June 3, 2011

Page 7

cc: The Honorable David Hayes, Deputy Secretary, Department of the Interior
The Honorable Mike Connor, Commissioner, Bureau of Reclamation
Mr. Rowan Gould, Acting Director, Fish and Wildlife Service
The Honorable Diane Feinstein, California Senator
The Honorable Barbara Boxer, California Senator
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Mark Cowin, Director, California Department of Water Resources
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John McCamman, Director, California Department of Fish and Game
Jim Kellogg, President, California Fish and Game Commission

Attachment 1

San Luis & Delta-Mendota Water Authority Member Agencies:

Banta-Carbona Irrigation District
Broadview Water District
Byron Bethany Irrigation District (CVPSA)
Central California Irrigation District
City of Tracy
Del Puerto Water District
Eagle Field Water District
Firebaugh Canal Water District
Fresno Slough Water District
Grassland Water District
Henry Miller Reclamation District #2131
James Irrigation District
Laguna Water District
Mercey Springs Water District
Oro Loma Water District
Pacheco Water District
Pajaro Valley Water Management Agency
Panoche Water District
Patterson Irrigation District
Pleasant Valley Water District
Reclamation District 1606
San Benito County Water District
San Luis Water District
Santa Clara Valley Water District
Tranquility Irrigation District
Turner Island Water District
West Side Irrigation District
West Stanislaus Irrigation District
Westlands Water District

State Water Contractors Member Agencies:

Alameda County Flood Control and Water
Conservation District Zone 7
Alameda County Water District
Antelope Valley-East Kern Water Agency
Casitas Municipal Water District
Castaic Lake Water Agency
Central Coast Water Authority
City of Yuba City
Coachella Valley Water District
County of Kings
Crestline-Lake Arrowhead Water Agency
Desert Water Agency
Dudley Ridge Water District
Empire-West Side Irrigation District
Kern County Water Agency
Littlerock Creek Irrigation District
Metropolitan Water District of Southern
California
Mojave Water Agency
Napa County Flood Control and Water
Conservation District
Oak Flat Water District
Palmdale Water District
San Bernardino Valley Municipal Water
District
San Gabriel Valley Municipal Water District
San Geronio Pass Water Agency
San Luis Obispo County Flood Control and
Water Conservation District
Santa Clara Valley Water District
Solano County Water Agency
Tulare Lake Basin Water Storage District

Attachment 2
List of References

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