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4 UNITED STATES DISTRICT COURT  
5 EASTERN DISTRICT OF CALIFORNIA  
6

7 NATURAL RESOURCES DEFENSE COUNCIL,  
8 *et al.*,

9 Plaintiffs,

10 v.

11 DIRK KEMPTHORNE, in his official  
12 capacity as Secretary of the Interior,  
13 *et al.*,

14 Defendants,

15 CALIFORNIA DEPARTMENT OF WATER  
16 RESOURCES,

17 Defendant-Intervenor,

18 STATE WATER CONTRACTORS

19 Defendant-Intervenor,

20 SAN LUIS & DELTA-MENDOTA WATER  
21 AUTHORITY, *et al.*,

22 Defendant-Intervenors,  
23  
24  
25  
26

1:05-CV-01207 OWW (TAG)

ORDER GRANTING IN PART  
AND DENYING IN PART  
PLAINTIFFS' MOTION FOR  
SUMMARY JUDGMENT (DOC.  
231/232)

27 I. INTRODUCTION

28 This case concerns the effect on a threatened species of  
fish, the Delta smelt (*Hypomesus transpacificus*)<sup>1</sup>, of the  
coordinated operation of the federally-managed Central Valley  
Project ("CVP") and the State of California's State Water Project

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<sup>1</sup> The Delta smelt was listed as a threatened species under  
the ESA, March 5, 1992, 58 Fed.Reg. 12863.

1 ("SWP"), among the world's largest water diversion projects.  
2 Both projects divert large volumes of water from the California  
3 Bay (Sacramento-San Joaquin) Delta ("Delta") and use the Delta to  
4 store water.

5 For over thirty years, the projects have been operated  
6 pursuant to a series of cooperation agreements. In addition, the  
7 projects are subject to ever-evolving statutory, regulatory,  
8 contractual, and judicially-imposed requirements. The Long-Term  
9 Central Valley Project and State Water Project Operations  
10 Criteria and Plan ("2004 OCAP" or "OCAP") surveys how the  
11 projects are currently managed in light of these evolving  
12 circumstances. At issue in this case is a 2005<sup>2</sup> biological  
13 opinion ("BiOp"), issued by the United States Fish and Wildlife  
14 Service ("FWS" or "Service") pursuant to the Endangered Species  
15 Act ("ESA"), which concludes that current project operations  
16 described in the OCAP and certain planned future actions will not  
17 jeopardize the continued existence of the Delta smelt or  
18 adversely modify its critical habitat.

19 The Delta smelt is a small, slender-bodied fish endemic to  
20 the Delta. Historically, Delta smelt could be found throughout  
21 the Delta. Although abundance data on the smelt indicates that  
22 the population has fluctuated wildly in the past, it is  
23 undisputed that, overall, the population has declined  
24 significantly in recent years, to its lowest reported volume in  
25 fall 2004.

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27 <sup>2</sup> The biological opinion was first issued in July 2004.  
28 Then, after reconsultation, was reissued in February 2005.

1 In this case, Plaintiffs, a coalition of environmental and  
2 sportfishing organizations, challenge the 2005 BiOp's no jeopardy  
3 and no adverse modification findings as arbitrary, capricious,  
4 and contrary to law under the Administrative Procedure Act, 5  
5 U.S.C. §§ 702 et seq. Before the court for decision is  
6 Plaintiffs' motion for summary judgment. Among other things,  
7 Plaintiffs allege that the BiOp fails to consider the best  
8 available science, relies upon uncertain (and allegedly  
9 inadequate) adaptive management processes to monitor and mitigate  
10 the potential impacts of the OCAP, fails to meaningfully analyze  
11 whether the 2004 OCAP will jeopardize the continued existence of  
12 the Delta smelt, fails to consider the OCAP's impact upon  
13 previously designated critical habitat, and fails to address the  
14 impacts of the entire project.

15 Separate opposition briefs were filed by the Federal  
16 Defendants (Doc. 242), the Department of Water Resources  
17 ("DWR") (Doc. 246), and the State Water Contractors ("SWC") (Doc.  
18 241), along with a final brief filed collectively by San Luis &  
19 Delta-Mendota Water Authority, Westlands Water District, and the  
20 California Farm Bureau Federation ("the San Luis Parties") (Doc.  
21 247).

## 22 **II. THE ENDANGERED SPECIES ACT**

23 A recent Ninth Circuit opinion in *National Wildlife*  
24 *Federation v. National Marine Fisheries Service*, 481 F.3d 1224  
25 (9th Cir. 2007) [hereinafter "*NWF v. NMFS*"], succinctly summarizes  
26 the relevant provisions of the ESA:

27 The ESA requires federal agencies to "insure that any  
28 action authorized, funded, or carried out by such  
agency ... is not likely to jeopardize the continued

1 existence of any endangered species or threatened  
2 species or result in the destruction or adverse  
3 modification of [designated critical] habitat...."  
4 15 U.S.C. § 1536(a)(2). The ESA imposes a procedural  
5 consultation duty whenever a federal action may affect  
6 an ESA-listed species. *Thomas v. Peterson*, 753 F.2d  
7 754, 763 (9th Cir.1985). To that end, the agency  
8 planning the action, usually known as the "action  
9 agency," must consult with the consulting agency. This  
10 process is known as a "Section 7" consultation. The  
11 request is usually initiated by a formal written  
12 request by the action agency to the consulting agency.  
13 After consultation, investigation, and analysis, the  
14 consulting agency then prepares a biological opinion.  
15 See generally *Ariz. Cattle Growers' Ass'n v. U.S. Fish  
16 & Wildlife Serv.*, 273 F.3d 1229, 1239 (9th Cir.2001).  
17 In this case, the action agencies are the U.S. Army  
18 Corps of Engineers and the Bureau of Reclamation, while  
19 the consulting agency is NMFS.

20 The consulting agency evaluates the effects of the  
21 proposed action on the survival of species and any  
22 potential destruction or adverse modification of  
23 critical habitat in a biological opinion, 16 U.S.C.  
24 § 1536(b), based on "the best scientific and commercial  
25 data available," *id.* § 1536(a)(2). The biological  
26 opinion includes a summary of the information upon  
27 which the opinion is based, a discussion of the effects  
28 of the action on listed species or critical habitat,  
and the consulting agency's opinion on "whether the  
action is likely to jeopardize the continued existence  
of a listed species or result in the destruction or  
adverse modification of critical habitat...." 50 C.F.R.  
§ 402.14(h)(3). In making its jeopardy determination,  
the consulting agency evaluates "the current status of  
the listed species or critical habitat," the "effects  
of the action," and "cumulative effects." *Id.* §  
402.14(g)(2)-(3). "Effects of the action" include both  
direct and indirect effects of an action "that will be  
added to the environmental baseline." *Id.* § 402.02. The  
environmental baseline includes "the past and present  
impacts of all Federal, State or private actions and  
other human activities in the action area" and "the  
anticipated impacts of all proposed Federal projects in  
the action area that have already undergone formal or  
early section 7 consultation." *Id.* If the biological  
opinion concludes that jeopardy is not likely and that  
there will not be adverse modification of critical  
habitat, or that there is a "reasonable and prudent  
alternative[ ]" to the agency action that avoids  
jeopardy and adverse modification and that the  
incidental taking of endangered or threatened species  
will not violate section 7(a)(2), the consulting agency  
can issue an "Incidental Take Statement" which, if  
followed, exempts the action agency from the

1 prohibition on takings found in Section 9 of the ESA.  
2 16 U.S.C. § 1536(b)(4); *ALCOA v. BPA*, 175 F.3d 1156,  
3 1159 (9th Cir.1999).

4 \*\*\*

5 The issuance of a biological opinion is considered a  
6 final agency action, and therefore subject to judicial  
7 review. *Bennett v. Spear*, 520 U.S. 154, 178, 117 S.Ct.  
8 1154, 137 L.Ed.2d 281 (1997); *Ariz. Cattle Growers'*  
9 *Ass'n*, 273 F.3d at 1235.

10 *Id.* at \*2-\*3.

### 11 **III. FACTUAL BACKGROUND**

12 For over thirty years the state and federal agencies charged  
13 with management of the CVP and SWP have operated the projects in  
14 an increasingly coordinated manner pursuant to a Coordinated  
15 Operating Agreement ("COA"). The COA, which dates to 1986, has  
16 evolved over time to reflect, among other things, changing  
17 facilities, delivery requirements, and regulatory restrictions.  
18 The most recent document surveying how the COA is implemented in  
19 light of these evolving circumstances is the 2004 Operating  
20 Criteria and Plan ("2004 OCAP" or "OCAP") issued June 30, 2004.  
21 (AR 489-728.)<sup>3</sup>

#### 22 **A. Overview of the 2004 OCAP.**

23 The OCAP begins with a "Purpose of Document" section which  
24 states:

25 This document has been prepared to serve as a baseline  
26 description of the facilities and operating environment  
27 of the Central Valley Project (CVP) and State Water  
28 Project (SWP). The Central Valley Project - Operations  
and Criteria Plan (CVP-OCAP) identifies the many  
factors influencing the physical and institutional  
conditions and decision-making process under which the

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<sup>3</sup> All "AR" references are to the administrative record  
provided by the U.S. Fish and Wildlife Service..

1 project currently operates. Regulatory and legal  
2 instruments are explained, alternative operating models  
and strategies described.

3 The immediate objective is to provide operations  
4 information for the Endangered Species Act, Section 7,  
consultation. The long range objective is to integrate  
5 CVP-OCAP into the proposed Central Valley document.  
6 It is envisioned that CVP-OCAP will be used as a  
reference by technical specialists and policymakers in  
7 and outside the Bureau of Reclamation (Reclamation) in  
understanding how the CVP is operated. The CVP-OCAP  
8 includes numeric and nonnumeric criteria and operating  
strategies. Emphasis is given to explaining the  
9 analyses used to develop typical operating plans for  
simulated hydrologic conditions.

10 All divisions of CVP are covered by this document,  
including the Trinity River Division, Shasta and  
11 Sacramento Divisions, American River Division and  
Friant Division.

12 (AR 506.)<sup>4</sup>

13 The introductory chapter provides an overview of all of the  
14 physical components of the CVP and SWP (AR 507-520), as well as  
15 all of the relevant legal authorities affecting CVP operations  
16 (508-512).

17 Chapter 2, explains, among other things, that water needs  
18 assessments have been performed for each CVP water contractor, to  
19 confirm each contractor's past beneficial use in order to  
20 anticipate future demands. (AR 521.) Chapter 2 also reviews the  
21 1986 COA and how it is implemented on a daily basis by  
22 Reclamation and DWR. (AR 523-25.) Also provided is a detailed  
23 overview of the "changes in [the] operations coordination  
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25 <sup>4</sup> Whether the 2004 OCAP is a "final agency action" for  
26 the purposes of the National Environmental Policy Act is at issue  
27 in a related lawsuit, *Pacific Coast Federation of Fishermen's*  
*Associations v. Gutierrez*, 1:06-cv-00245 OWW (TAG) ("*PCFFA*").  
28 This overview of the OCAP does not prejudge the merits of the  
pending motion to dismiss in *PCFFA*.

1 environment since 1986," which include:

- 2 • Changes due to temperature control operations on the  
3 Sacramento River;
- 4 • Increases in the minimum release requirements on the  
5 Trinity River;
- 6 • Implementation of CVPIA 3406(b) (2) and Refuge Water  
7 Supply contracts;
- 8 • Commitments made by the CVP and SWP pursuant to the  
9 Bay-Delta Accord and the subsequent implementation of  
10 State Water Resources Control Board ("SWRCB") Decision-  
11 1641;
- 12 • The Monterey Agreement;
- 13 • The Operation of the North Bay Aqueduct (which was not  
14 included in the 1986 COA).
- 15 • The SWP's commitment to make up for 195,000 acre-feet  
16 of pumping lost to the CVP due to SWRCB Decision 1485;
- 17 • Implementation of the Environmental Water Account; and
- 18 • Constraints imposed by various endangered species act  
19 listings, including that of the Sacramento River  
20 Winter-Run Chinook Salmon, the Sacramento River Spring-  
21 Run Chinook Salmon, the Steelhead Trout, and the Delta  
22 Smelt (which resulted in the issuance of biological  
23 opinions in 1993, 1994, and 1995 concerning CVP/SWP  
24 operations and the South Delta Temporary Barriers  
25 Biological Opinion in 2001)

26 (AR 525-28.) The OCAP also reviews the regulatory standards  
27 imposed by SWRCB D-1641, which include water quality standards  
28 based on the geographic position of the 2-parts-per-thousand

1 isohale (otherwise known as "X2"), a Delta export restriction  
2 standard known as the export/inflow (E/I) ratio, minimum Delta  
3 outflow requirements, and Sacramento River and San Joaquin River  
4 flow standards. (AR 530-537.) In addition to imposing  
5 requirements, D-1641 granted the Bureau and DWR permission to use  
6 each project's capabilities in a coordinated manner. (AR 537-  
7 38.)

8 This is not a complete overview of the projects' operations  
9 covered in the OCAP. Numerous regulatory and operational changes  
10 have taken place in recent years. As the OCAP's "Purpose of  
11 Document" section explains, the immediate objective of the OCAP  
12 is to lay out all such regulatory and other operational  
13 information so that ESA Section 7 consultation can proceed to  
14 evaluate how project operations will effect the Delta smelt under  
15 various projected future conditions.

16 **B. Applying the ESA to Project Operations.**

17 Because endangered and/or threatened species, including the  
18 Delta smelt, reside in the area affected by the CVP and SWP, the  
19 2004 OCAP, administered on behalf of the federal government by  
20 the Bureau of Reclamation ("Bureau"), must comply with various  
21 provisions of the ESA. Specifically, prior to authorizing,  
22 funding, or carrying out any action, the acting federal agency  
23 (in this case, the Bureau) must first consult with FWS and/or  
24 NMFS to "insure that [the] action...is not likely to jeopardize  
25 the continued existence of any endangered species or threatened  
26 species or result in the destruction or adverse modification of  
27 habitat of such species which is determined...to be critical...."  
28 16 U.S.C. § 1536(a)(2) [ESA § 7(a)(2)]. This form of

1 consultation is called "formal consultation," and concludes with  
2 the issuance of a biological opinion. 50 C.F.R. § 402.02.

3 Alternatively, under certain circumstances, a federal agency  
4 may pursue "early consultation," on behalf of an agency or  
5 private party (referred to as a "prospective applicant") who will  
6 require formal approval or authorization to undertake a project.

7 *Id.* Early consultation may be requested when the prospective  
8 applicant "has reason to believe that an endangered species or a  
9 threatened species may be present in the area affected by this  
10 project and that implementation of such action will likely affect  
11 such species." 50 C.F.R. § 402.11(b). The result of early  
12 consultation is a "preliminary biological opinion," the contents  
13 of which are "the same as for a biological opinion issued after  
14 formal consultation except that the incidental take statement  
15 provided with a preliminary biological opinion does not  
16 constitute authority to take listed species."

17 § 402.11(e). Subsequently, the preliminary biological opinion  
18 may be "confirmed" after the prospective applicant applies to the  
19 federal agency for a permit or licence. Once a request for  
20 confirmation is received, the FWS must either confirm that the  
21 preliminary biological opinion stands as the final biological  
22 opinion or must request that the federal agency initiate formal  
23 consultation. § 402.11(f).

24 In this case, the 2004 OCAP BiOp<sup>5</sup> contemplates increases in  
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26 <sup>5</sup> The OCAP itself does not plan for increased pumping or  
27 the construction or operation of any new facilities, nor does it  
28 describe or model flow regimes under any of these future plans.  
These planned operational changes are set forth in the BA and the  
BiOp. (See AR 381-423 (describing the effects of those actions

1 water diversions and the construction of new facilities in the  
2 Delta. (AR 256-271.) The maximum daily diversion rate in  
3 Clifton Court Forebay will increase from 6,680 cubic feet per  
4 second (CFS) to 8,500 CFS (27% increase in pumping) and  
5 eventually to 10,300 CFS (54% increase). Permanent barriers  
6 within the south Delta will be constructed and operated. An  
7 intertie between the California Aqueduct and the Delta-Mendota  
8 Canal will be constructed and operated. Water deliveries from  
9 the American River will be doubled. New deliveries of CVP water  
10 to the Freeport Regional Water Project will be made. Water  
11 transfers resulting in an annual 200,000 to 600,000 acre-feet  
12 increase in Delta exports will result. (AR 256, 339-40, 357-59,  
13 371, 382-83, 465.)

14 The Bureau submitted some of these operational changes for  
15 formal consultation with FWS concerning their impact on the Delta  
16 smelt, while other changes were subject only to early  
17 consultation:

18 This biological opinion covers formal and early  
19 consultation for the operations of the CVP and SWP. The  
20 formal consultation effects described in this  
21 biological opinion cover the proposed 2020 operations  
of the CVP including the Trinity River Mainstem ROD  
(Trinity ROD) flows on the Trinity River, the increased

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22 included in formal consultation, including re-operation of the  
23 Trinity River, increased demands on the American River, operation  
24 of the Freeport Regional Water Project ("FRWP"), and operation of  
25 an intertie between the Delta-Mendota Canal and the California  
26 Aqueduct); AR 357-61 (describing the "items for early  
27 consultation," including operation of components of the South  
28 Delta Improvement Project, which calls for pumping at Banks to  
increase to 8500 cfs, operation of permanent barriers in various  
places within the Delta, the operation of a long term EWA, the  
use of CVP/SWP capacity to facilitate expanded water transfers,  
and further integration of CVP/SWP operations.)

1 water demands on the American River, the delivery of  
2 CVP water to the proposed Freeport Regional Water  
3 Project (FRWP), water transfers, the long term  
4 Environmental Water Account (EWA), the operation of the  
5 Tracy Fish Facility, and the operation of the SWP-CVP  
6 intertie. The effects of operations of the SWP are also  
7 included in this opinion and include the operations of  
8 the North Bay Aqueduct, the Suisun Marsh Salinity  
9 Control Gates, the Skinner Fish Facility and water  
10 transfers.

11 Early consultation effects include the effects of  
12 operations of components of the South Delta Improvement  
13 Program (SDIP). These operations include pumping of  
14 8500 cubic feet per second (cfs) at the SWP and Banks  
15 Pumping Plant (hereafter referred to as 8500 Banks),  
16 permanent barrier operations in the South Delta, the  
17 long term EWA, water transfers, and CVP and SWP  
18 operational integration. There are two separate effects  
19 sections in this biological opinion, one for Formal  
20 Consultation and one for Early Consultation. In  
21 addition, there is an incidental take for formal  
22 consultation and a preliminary incidental take for  
23 early consultation.

24 (AR 2, 248.)<sup>6</sup>

### 25 **C. History of This Lawsuit.**

26 On July 30, 2004, FWS issued a Biological Opinion (the "2004  
27 OCAP BiOp"), addressing both formal and early consultation for  
28 the above-described OCAP actions. (AR 1.)<sup>7</sup>

On August 4, 2004, the Ninth Circuit decided *Gifford Pinchot*

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20 <sup>6</sup> The first step in the consultation process is usually  
21 the preparation of a Biological Assessment ("BA") by the action  
22 agency (in this case, the Bureau), the purpose of which is to  
23 "evaluate the potential effects of the action on listed []  
24 species and designated [] critical habitat and determine whether  
25 any such species or habitat are likely to be adversely affected  
26 by the action...." 50 C.F.R. § 402.12(a). In this case, the  
27 Bureau issued its BA regarding the "Long-Term Central Valley  
28 Project and State Water Project Operations and Criteria Plan" on  
June 30, 2004. (AR 729.) The BA describes the project on which  
consultation is being held, both early and formal, in much the  
same terms as are used in the BiOp.

<sup>7</sup> Prior to 2004, the OCAP operated under Biological  
Opinions issued in 1993 and 1995.

1 *Task Force v. United States Fish & Wildlife Serv.*, 378 F.3d 1059,  
2 1069 (9th Cir. 2004), which held that the FWS's definition of  
3 "adverse modification" to critical habitat is an impermissible  
4 interpretation of the ESA because it focuses on whether critical  
5 habitat modifications would impact the survival of a species,  
6 effectively ignoring the statutorily-mandated goal of "recovery."  
7 On November 4, 2004, in response to this ruling, the Bureau  
8 requested reinitiation of consultation to address critical  
9 habitat issues.

10 Plaintiffs in this case, a coalition of non-profit  
11 conservation organizations, filed suit on February 15, 2005,  
12 alleging that the 2004 OCAP BiOp was legally inadequate in light  
13 of *Gifford Pinchot* and should be invalidated. (Doc. 1.)  
14 Plaintiffs named as defendants the Department of the Interior and  
15 the FWS. (*Id.*)

16 On February 16, 2005, FWS issued an amended BiOp (the "2005  
17 OCAP BiOp," "OCAP BiOp," or "BiOp"), which superceded the 2004  
18 OCAP BiOp. (AR 247.) The 2005 OCAP BiOp concludes that the  
19 coordinated operation of the SWP and CVP, including the proposed  
20 future actions, will not jeopardize the Delta smelt's continued  
21 existence. (AR at 469.) Although the BiOp recognizes that  
22 existing protective measures may be inadequate, the FWS concluded  
23 that certain proposed protective measures, including the EWA and  
24 a proposed "adaptive management" protocol would provide adequate  
25 protection. (*Id.*)

26 Since the filing of this complaint, Federal Defendants have  
27 reinitiated § 7 consultation and contend this case should be  
28 dismissed as moot, or stayed for a voluntary remand of the 2005

1 BiOp without vacatur.

2 Plaintiffs filed a supplemental complaint on May 20, 2005,  
3 challenging the amended BiOp on various grounds. (Doc. 128 pt.  
4 8.)

5 **D. Delta Smelt Abundance.**

6 Smelt once were one of the most common pelagic<sup>8</sup> fish in the  
7 Delta, having previously occupied the waters from "Suisun Bay and  
8 Montezuma Slough, upstream to at least Verona on the Sacramento  
9 River, and Mossdale on the San Joaquin River." (AR 365.) Smelt  
10 abundance has "declined irregularly" for at least the past 20  
11 years. (AR 365-67.) FWS relies primarily upon two indices to  
12 monitor Delta smelt abundance, calculated from the Summer Tow Net  
13 Survey ("TNS") and the Fall Midwater Trawl ("FMWT"). (AR 366-67,  
14 1022.) The TNS index, which measures the abundance and  
15 distribution of juvenile Delta smelt, constitutes "one of the  
16 more representative indices because the data have been collected  
17 over a wide geographic area (from San Pablo Bay upstream through  
18 most of the Delta) for the longest period of time (since 1959)."  
19 (AR 370.) Since 1983, except for three years (1986, 1993, and  
20 1994), the TNS has remained consistently lower than ever  
21 previously recorded. (*Id.*)

22 The FMWT index, which measures the abundance and  
23 distribution of late juveniles and adult Delta smelt from San  
24 Pablo Bay to Rio Vista on the Sacramento River and Stockton on  
25 the San Joaquin River, is the second longest running survey  
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27 <sup>8</sup> Pelagic fish live in open water, generally away from  
28 vegetation or the bottom. (AR 365.) A significant amount of the  
smelt's habitat are the Delta waters and waters of surrounding  
areas.

1 (since 1967). The BiOp reviewed the FMWT trends as follows:

2 Although this index has fluctuated widely (AR 9201-02,  
3 9222), it has "declined irregularly over the past 20  
4 years." (AR 370-71.) Since 1983, the FMWT has  
5 registered more low indices for more consecutive years  
6 than previously recorded. Until recently, except for  
7 1991, this index has declined irregularly over the past  
8 20 years. Since 1983, the delta smelt population has  
9 exhibited more low fall midwater trawl abundance  
10 indices, for more consecutive years, than previously  
11 recorded. The 1994 FMWT index of 101.7 is a  
12 continuation of this trend. This occurred despite the  
13 high 1994 summer townet index for reasons unknown. The  
14 1995 summer townet was a low index value of 319 but  
15 resulted in a high FMWT index of 898.7 reflecting the  
16 benefits of large transport and habitat maintenance  
17 flows with the Bay-Delta Accord in place and a wet  
18 year. The abundance index of 128.3 for 1996 represented  
19 the fourth lowest on record. The abundance index of  
20 305.6 for 1997 demonstrated that the relative abundance  
21 of delta smelt almost tripled over last years results,  
22 and delta smelt abundance continued to rise, peaking in  
23 1999 to an abundance index of 863, only to fall back  
24 down to the low abundance indexes of 139 for 2002 and  
25 213 for 2003.

26 (AR at 371.)

27 The 2004 FMWT index, which was not discussed in the BiOp,  
28 was calculated to be 74, the lowest ever recorded. (AR 9202.)  
(This omission forms the basis of one of Plaintiffs' challenges  
to the BiOp.) The survey was apparently released in December  
2004, and was specifically cited to FWS in February 2005.

At the hearing on the summary judgment motions, Federal  
Defendants in substance argued that despite years of study, the  
abundance data for the annual Delta smelt population is fraught  
with uncertainties and "not enough is known about the species" to  
accurately and finitely measure with certainty the project's  
effects on Delta smelt. FWS maintains the one to two year life  
expectancy of the smelt also contribute to this lack of  
certainty.

1           **E. Relationship Between Abundance and Project Operations.**

2           The BiOp cites several reasons for the smelt's decline.  
3           First, since the mid 1800s, mining, agricultural use, and levee  
4           construction caused the loss of a large portion of smelt habitat.  
5           (AR at 365.) Second, recreational boating in the Delta has  
6           resulted in the presence and propagation of "predatory non-native  
7           fish" and an increase in the rate of smelt erosion resulting from  
8           boat wakes. (*Id.*) Third, reduced water quality "from  
9           agricultural runoff, effluent discharge and boat effluent has the  
10          potential to harm the pelagic larvae and reduce the availability  
11          of the planctonic food source." (*Id.* at 366.) Finally, the BiOp  
12          acknowledges that "delta smelt have been increasingly subject to  
13          entrainment, upstream or reverse flows of waters in the Delta and  
14          San Joaquin River, and constriction of low salinity habitat to  
15          deep-water river channels of the interior Delta." (*Id.*) The  
16          BiOp acknowledges that these final adverse effects are "primarily  
17          a result of the steadily increasing proportion of river flow  
18          being diverted from the Delta by the Projects, and occasional  
19          droughts." (*Id.* (emphasis added).) The BiOp in no way  
20          quantifies the contribution of each of these factors to the  
21          smelt's decline. The parties dispute the extent to which project  
22          operations jeopardize the smelt.

23           **F. Relationship Between Smelt and "X2."**

24          Smelt are euryhaline (tolerant of a wide range of  
25          salinities), but generally occur in water with less than 10-12  
26          parts per thousand (ppt) salinity. (AR at 362.) For a large  
27          part of its life span, Delta smelt are thought to be associated  
28          with the "freshwater edge of the mixing zone," where the salinity

1 is approximately 2 parts per thousand (often referred to as  
2 "X2"). (AR at 366.) The summer TNS index increases dramatically  
3 whenever X2 is located between Chipps and Roe islands. (*Id.*)  
4 Whenever the location of X2 shifts upstream of the confluence of  
5 the Sacramento and San Joaquin, either as a result of water  
6 diversions or natural conditions, smelt abundance decreases.  
7 (*Id.* at 371.)

8 **G. The Concept of "Salvage."**

9 The BiOp's "no jeopardy" conclusion relies on the concept of  
10 "salvage," which refers generally to the process of using  
11 mechanical devices to screen fish that would otherwise be  
12 entrained in project facilities (e.g., pumps) into holding tanks  
13 for transport to other parts of the Delta. (See e.g., AR 321.)  
14 Unlike many other fish species in the Delta, Delta smelt do not  
15 survive the salvage process, "either due to stress and injury  
16 from handling, trucking and release, or from predation in or near  
17 the salvage facilities, the release sites, or in Clifton Court  
18 Forebay." (AR at 413.) As a result, for Delta smelt, FWS uses  
19 the terms salvage and entrainment essentially interchangeably.  
20 (See *id.* ("To simplify predictions of the difference in salvage  
21 (and by extension entrainment) between model scenarios....")<sup>9</sup>)

22 Previous BiOps regarding CVP and SWP operations used salvage  
23 to set take limits. For example, the 1995 BiOp's incidental take  
24 statement set take exceedence levels for Delta smelt based on  
25 "[m]onthly average delta smelt salvage at the Federal and State

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26  
27 <sup>9</sup> The BiOp contradictorily acknowledges that "although  
28 salvage is used to index delta smelt take, it does not reliably  
index delta smelt entrainment." (AR 419.)

1 Fish Facilities from 1980 to 1992 by water year type.” (AR at  
2 11765.) Essentially, take limits were set according to how much  
3 salvage had occurred in the past.

4 More recently, project managers, fisheries officials, and  
5 other experts came to the consensus that the salvage approach was  
6 insufficient on its own. For example, one DWR biologist noted  
7 that the singular focus on historic salvage had problems:

8 Higher levels of take are allowed in below normal years  
9 merely because this is what the projects “took”  
10 historically. However, the population is more  
condensed in below normal years and possibly more  
vulnerable to entrainment.

11 (AR 5532.) Experts advocated (a) further research into the  
12 relationship between the position of the Delta smelt and  
13 environmental conditions (AR 4881); and (b) the adoption of a  
14 flexible management approach, which would allow new information  
15 to be “folded back into the operation and conservation  
16 strategies.” (AR 4870.) The result was a “layered” approach to  
17 managing the smelt, made up of more protective take limits than  
18 previously imposed along with the implementation of an adaptive  
19 management protocol.

20 **I. Revised Take Exceedence Levels Used In the BiOp.**

21 The BiOp includes “hard” take limits,<sup>10</sup> based on historic  
22 “salvage density estimates,” adjusted to account for operational  
23 constraints under the 2004 OCAP and presumed increased  
24 environmental water flows. Separate take limits were established  
25 for formal and early consultation purposes.

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27 <sup>10</sup> These “hard” take limits, as the Defendants and  
28 Defendant Intervenors referred to them during oral argument are  
different from a separate take trigger that is part of the DSRAM  
process described below.

1           The revision of the take limits began with historic catch  
2 data from periodic samples of salvaged fish. (See AR 413.) Data  
3 about the volume of water diverted during the collection period  
4 is then used to estimate the fish per volume of water diverted.  
5 This is referred to as the "salvage density."<sup>11</sup> (Id.)  
6 Historically, salvage density varied greatly depending on whether  
7 the year was wet (above normal), dry (below normal, dry, or  
8 critical) year. Wet and dry year data were analyzed separately.  
9 (Id.) The estimates were then inputted into a computer modeling  
10 system, CALSIM II, to estimate take under varying assumptions  
11 about future project operations, including programs designed to  
12 improve environmental conditions, such as the Environmental Water  
13 Account. (AR 413-14.)

14           Several different scenarios or "Studies" were run through  
15 CALSIM II and included in the BiOp. For example, Study No. 1  
16 reflects the 1995 regulatory base case, without any changes in  
17 project operations and without the addition of any environmental  
18 water programs. Study No. 4a estimates a take level for flow  
19 conditions planned under the operations subject to final  
20 consultation (changes to flows in the Trinity River, future  
21 development levels, and the operation of the Freeport Regional  
22 Water Project and the Intertie). Study 4a included flow  
23 adjustments required by D-1641 and VAMP, along with projected  
24 CVPIA (b) (2) flows, but did not include operation of the EWA.

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25  
26           <sup>11</sup> DWR insisted during oral argument that the data used to  
27 run the CALSIM II models was not "salvage" data but was rather  
28 "density data." The BiOp is explicit that the models were run  
using a "salvage density" estimate generated from periodic  
samplings of salvaged fish.

1 Study No. 5a was similar to 4a, except that it added projected  
2 EWA flows. Separately, in Study No. 5, CALSIM II simulated flow  
3 modifications projected to occur as a result of "those projects  
4 subject to early consultation," specifically the increased  
5 pumping and permanent barriers called for in the planned South  
6 Delta Improvement Project ("SDIP"). (AR 374, 414-19; Sommer  
7 Decl. ¶5.) Each modeling scenario was run separately for various  
8 water year types (Wet, Above Normal, Below Normal, Dry, and  
9 Critically Dry) and independently estimated take at CVP and SWP  
10 facilities.

11 The BiOp based its conclusions for formal consultation on  
12 the results of the Study No. 5a, and for early consultation on  
13 the results of Study No. 5. The results of the modeling  
14 scenarios for Study No. 5a are set forth in several tables at  
15 pages 414 through 419 of the AR. The following table summarizes  
16 the changes in estimated take for Study No. 5a, for each type of  
17 water year, relative to the 1995 base case. In other words, the  
18 positive figures represent the number of additional smelt that  
19 will be taken per month under formal consultation relative to the  
20 1995 base case (Study No. 1) while negative numbers represent how  
21 many fewer smelt will be taken per month relative to the 1995  
22 base case.<sup>12</sup>

23 //  
24 //  
25 //

26

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27 <sup>12</sup> The information contained in these tables was derived  
28 by the court from the BiOp but was not presented in this form in  
the BiOp.

**Table 1:  
Summary of Results for CVP Salvage Under Study No. 5a**

| Month                    | Wet Year | Above Normal Year | Below Normal Year | Dry Year | Critically Dry Year |
|--------------------------|----------|-------------------|-------------------|----------|---------------------|
| <b>Adults</b>            |          |                   |                   |          |                     |
| December                 | -1       | -1                | -3                | -3       | -41                 |
| January                  | -13      | -13               | -12               | -10      | -98                 |
| February                 | -33      | -36               | +63               | -60      | +9                  |
| March                    | +29      | -40               | -83               | -19      | +1                  |
| <b>Largely Juveniles</b> |          |                   |                   |          |                     |
| April                    | 0        | 0                 | -16               | +5       | 0                   |
| May                      | 0        | 0                 | -9017             | -14469   | -11652              |
| June                     | 0        | 0                 | 0                 | -2910    | 0                   |
| July                     | 0        | +11               | +7                | -74      | 0                   |
| Net: December-March      | -17      | -89               | -35               | +28      | -130                |
| Net: April-July          | 0        | +11               | -9025             | -17448   | -11652              |

**Table 2:  
Summary of Results for SWP Salvage Under Study No. 5a**

| Month                    | Wet Year | Above Normal Year | Below Normal Year | Dry Year | Critically Dry Year |
|--------------------------|----------|-------------------|-------------------|----------|---------------------|
| <b>Adults</b>            |          |                   |                   |          |                     |
| December                 | -6       | -6                | -16               | -15      | -11                 |
| January                  | -76      | -87               | -82               | -87      | -104                |
| February                 | +86      | -94               | 0                 | 0        | +51                 |
| March                    | +98      | +91               | +63               | 0        | +2                  |
| <b>Largely Juveniles</b> |          |                   |                   |          |                     |
| April                    | -60      | -77               | -365              | -144     | 0                   |
| May                      | -27188   | -25933            | -31122            | -32083   | -7269               |
| June                     | -1096    | -129              | -53               | 1267     | 0                   |
| July                     | 0        | +282              | +318              | +493     | +175                |
| Net: December-March      | +102     | -95               | -35               | -102     | -62                 |
| Net: April-July          | -28346   | -25857            | -31213            | -33000   | -7095               |

For the CVP, CALSIM II predicts significant reductions in smelt salvage during the months of December through July in below normal and dry years, when compared to the regulatory base

1 case.<sup>13</sup> However, under certain scenarios, CVP salvage increases  
2 during other months of the year relative to the regulatory base  
3 case, because pumping is predicted to increase during these  
4 months to make up for water released from storage for fish  
5 protection purposes. For the SWP, salvage stays relatively level  
6 for the months of December through March. However, salvage  
7 decreases for the months of April through July relative to the  
8 regulatory base case.

9 Based on CALSIM II Study 5a, FWS calculated the amount of  
10 "combined salvage" (i.e., for both projects) estimated under the  
11 formal consultation scenario, for each month, according to water  
12 year type. The BiOp rounded the numbers up to the nearest 100  
13 and used those figures to set incidental take limits by water  
14 year type. (AR 471-472.)

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16 ///

17 ///

18 ///

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22

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23 <sup>13</sup> The tables at pages 414 and 419 of the AR do not list  
24 the absolute number of smelt estimated to be taken in any given  
25 month under the 1995 regulatory base case (Study No. 1).  
26 However, the incidental take limits (set forth in the Table 3  
27 below) were based on the absolute numbers of smelt that are  
28 projected to be taken under Study No. 5a. For example, the take  
limit for the month of May in a Critically Dry year, set at  
30,500, under the CALSIM II results in a reduction of the 30,500  
to 18,921 (representing 11,652 reduction in CVP salvage plus  
7,269 reduction in SWP salvage) lower than the 1995 regulatory  
base case.

**Table 3:  
Incidental Take Limits by Water Year Type  
(For Both CVP and SWP)**

|                               | Water Year Type |                     |                                |
|-------------------------------|-----------------|---------------------|--------------------------------|
|                               | Month           | Wet or Above Normal | Below Normal, Dry, or Critical |
| Monthly<br>Incidental<br>Take | October         | 100                 | 100                            |
|                               | November        | 100                 | 100                            |
|                               | December        | 700                 | 400                            |
|                               | January         | 3000                | 1900                           |
|                               | February        | 2300                | 1700                           |
|                               | March           | 1300                | 1300                           |
|                               | April           | 1000                | 1100                           |
|                               | May             | 37800               | 30500                          |
|                               | June            | 45300               | 31700                          |
|                               | July            | 3500                | 2500                           |
|                               | August          | 100                 | 100                            |
|                               | September       | 100                 | 100                            |

Because these incidental take levels are based on predictions produced by CALSIM II Study 5a, they do not assume any smelt protection actions under the DSRAM, but do assume continued availability of the EWA water. (AR 374, 471.)

FWS determined that the level of anticipated take "is not likely to result in jeopardy to the smelt because this level of take is at or below historical levels of take." (AR 474.)

However, the BiOp also acknowledges that "the operations of the Projects under formal consultation as described in the Project Description will result in adverse effects to delta smelt through entrainment at the CVP and SWP and by drawing delta smelt into poorer quality habitat in the south delta." (AR 422 (emphasis added).) The BiOp concludes that "with the inclusion of [certain] conservation measures described [in the BiOp] and the implementation of the [Delta Smelt Risk Assessment Matrix], these adverse effects would be avoided or minimized." (*Id.*

1 (emphasis added).) "[W]ith these conservation measures in place,  
2 the re-operation of the Trinity River, the increased level of  
3 development on the American River, the Freeport Diversion, the  
4 Suisun Marsh Salinity Control Gates, the Barker Slough Diversion,  
5 or due to changes to X2...are not expected to result in adverse  
6 effects to delta smelt." (AR 423.)

7 FWS' conclusions admit project operations will result in  
8 adverse effects to delta smelt, which are unquantified, and can  
9 only be avoided by conservation measures and implementation of  
10 the DSRAM.

#### 11 **H. "Conservation Measures."**

12 The "conservation measures" contemplated are listed in the  
13 Summary of Effects section of the BiOp and include: (1) the  
14 Environmental Water Account ("EWA"); (2) Central Valley Project  
15 Improvement Act (b) (2) water; (3) State Water Resource Control  
16 Board's Water Rights Decision 1641; (4) the Vernalis Adaptive  
17 Management Plan ("VAMP"); and (5) the DSRAM adaptive management  
18 plan. (AR 466-68.)

#### 19 **1. CVPIA(b) (2) Water.**

20 According to the 1992 Central Valley Project Improvement  
21 Act, the CVP must "dedicate and manage annually 800,000 acre-feet  
22 of Central Valley Project yield for the primary purpose of  
23 implementing the fish, wildlife, and habitat restoration purposes  
24 and measures authorized by this title; to assist the State of  
25 California in its efforts to protect the waters of the San  
26 Francisco Bay/Sacramento-San Joaquin Delta Estuary; and to help  
27 to meet such obligations as may be legally imposed upon the  
28

1 Central Valley Project under State or Federal law following the  
2 date of enactment of this title, including but not limited to  
3 additional obligations under the Federal Endangered Species Act.”  
4 Title XXXIV of the Reclamation Projects Authorization and  
5 Adjustment Act of 1992, Pub. L. 102-575, 106 Stat. 4600, 4706  
6 (1992). (See AR 372.)

7 FWS, in consultation with the Bureau and other agencies, may  
8 use this “(b) (2) water” to meet Water Quality Control Plan (WQCP)  
9 obligations and any other requirements imposed by law after  
10 1992. “For example, (b) (2) water has been used to maintain  
11 flows on Clear Creek to provide adequate spawning and rearing  
12 habitat for Chinook salmon. Water exports at the CVP have also  
13 been reduced using (b) (2) water to reduce entrainment of salmon  
14 or delta smelt at the salvage facilities. This ongoing action  
15 provides a benefit to delta smelt in most years.” (AR 372.)

16 The base CVP yield committed to fish restoration is fixed by  
17 statute and is mandatory. This fixed supply is subject to  
18 reduction up to 25% in critically dry years under CVPIA  
19 § 3406(b) (2) (C).

## 20 **2. Environmental Water Account.**

21 The Environmental Water Account (“EWA”) is “an adaptive  
22 management tool that aims to protect both fish and water users as  
23 it modifies water project operations in the Bay-Delta.” (AR  
24 373.)

25 The EWA provides water for the protection and recovery  
26 of fish beyond that which would be available through  
27 the existing baseline of regulatory protection related  
28 to project operations. The EWA buys water from willing  
sellers or diverts surplus water when safe for fish,

1 then banks, stores, transfers and releases it as needed  
2 to protect fish and compensate water users for deferred  
diversions.

3 (*Id.*)

4 The EWA has been used to benefit smelt by allowing for the  
5 curtailment of project export pumping during critical time  
6 periods. (*Id.*) The EWA could also be used to increase in-stream  
7 flows or increase outflows in the Delta, both of which would  
8 benefit the smelt. (*Id.*) The EWA is not fixed by statute nor is  
9 annual funding assured, and the water supply it provides, though  
10 reasonably anticipated, is not immutable.

### 11 **3. Water Rights Decision 1641.**

12 State Water Resource Control Board Decision 1641 (D-1641)  
13 imposes certain minimum flow and water quality objectives upon  
14 the projects:

15 D-1641 includes specific outflow requirements  
16 throughout the year, specific export restraints in the  
17 spring, and export limits based on a percentage of  
18 estuary inflow throughout the year. D-1641 obligates  
19 the SWP and CVP to comply with the objectives in the  
20 1995 Bay-Delta Plan. The Service issued a biological  
21 opinion on the Bay-Delta plan to the Environmental  
22 Protection Agency on November 2, 1994. The water  
23 quality objectives in the 1995 Bay-Delta Plan and in  
24 D-1641 are designed to protect in-Delta agricultural,  
25 municipal and industrial, and fishery uses and vary  
26 throughout the year and by water year type.... D-1641  
27 will also protect delta smelt by providing transport,  
28 habitat and attraction flows.

(AR 373 (citations omitted).)

The D-1641 requirements are mandatory under the projects'  
operating permits. The water to satisfy D-1641 comes from  
3406(b)(2) yield and supplemental sources the Bureau utilizes.

1                   **4. Vernalis Adaptive Management Plan (VAMP).**

2           The Vernalis Adaptive Management Plan (VAMP) is an  
3 experimental program that had its origin in D-1641. (AR 373.)  
4 It provides for flows on the lower San Joaquin River and export  
5 curtailments at the projects. (*Id.*) VAMP's purpose is to  
6 "provide pulse flows on the San Joaquin River and improve habitat  
7 conditions in the Delta by reducing exports at the CVP and SWP"  
8 over a 31 day period in April and May for the benefit of Chinook  
9 salmon and Delta smelt. (*Id.*) Currently, water used to reduce  
10 exports at the CVP under VAMP is accounted for as CVPIA (b) (2)  
11 water. (*Id.*) If export reductions are taken, the EWA is used to  
12 supply contractors to make up for the transfers. VAMP flows  
13 "allow larval and juvenile smelt to avoid becoming entrained at  
14 the export facilities and to move downstream to Suisun Bay."  
15 (*Id.*)

16           The VAMP water supply is not irrevocably fixed or assured.  
17

18                   **I. Delta Smelt Risk Assessment Matrix (DSRAM).**

19           The BiOp's other, primary protection for the smelt is the  
20 implementation of a new adaptive management protocol, known as  
21 the Delta Smelt Risk Assessment Matrix ("DSRAM"). The DSRAM  
22 utilizes a list of trigger criteria to precipitate responses.  
23 (AR at 344.) The criteria are:

- 24           (1) the previous year's FMWT index;  
25           (2) the risk of smelt entrainment based upon the location of  
26 X2;  
27           (3) the estimated duration of the smelt spawning period,  
28

1 based on water temperature;

2 (4) the presence of spawning female smelt;

3 (5) the proximity of the smelt to project pumping  
4 facilities; and

5 (6) a salvage trigger for adult and juvenile smelt.

6 (AR 346.)

7 **1. The DSRAM Process.**

8 If any trigger criteria is met or exceeded, a Delta Smelt  
9 Working Group ("DSWG") is convened. The DSWG consists of  
10 representatives from FWS, the California Department of Fish and  
11 Game, DWR, the United States Environmental Protection Agency, the  
12 Bureau, and the California Bay-Delta Authority. (See AR 344-45.)  
13 The DSWG then recommends corrective actions to a Water Operations  
14 Management Team ("WOMT"). (*Id.*) The OCAP BiOp identifies four  
15 specific actions that the DSWG and WOMT must consider taking if  
16 one or more trigger criteria occur: (1) export reductions at one  
17 or both of the projects; (2) changes in the south Delta barrier  
18 operations; (3) changes in San Joaquin River flows; and (4)  
19 changes in the operation of the Delta cross channel.<sup>14</sup> The DSRAM  
20 does not contain defined action criteria, but instead leaves any  
21 response wholly to the discretion of the two groups who  
22 administer the DSRAM (DSWG and WOMT).

23 **2. DSRAM Implementation.**

24 The BiOp acknowledges although FWS is "confident that use of  
25

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26 <sup>14</sup> The DSRAM also includes a chart illustrating when  
27 during the year each of these actions will be available. (AR  
28 346.)

1 the DSRAM will reduce the frequency with which actual salvage  
2 exceeds the median predicted salvage, the exceedence frequency  
3 could be as high as 50%." (AR 471.) There is no analysis of the  
4 duration or consequences from such exceedence. The DSRAM  
5 provides no operating criteria or action schedule, specifying  
6 when mitigation actions must be taken. It is not possible to  
7 predict what, how and when DSRAM measures will be implemented.

8 **J. Recent Experience with DSRAM.**

9 DWR offered post-record evidence regarding the manner in  
10 which DSRAM has actually been implemented since its inception.  
11 This post-record activity could not have been considered by the  
12 agency. A motion to strike the proffered evidence was sustained.  
13 The offer of proof includes two "fish actions" that were taken in  
14 2005 in response to "triggers" and a third that was planned but  
15 avoided when project water increased in early 2006, a wet year.  
16 DWR's offer of proof is to show positive experience in operation  
17 of the DSRAM.

18 **K. Recent Procedural History.**

19 The Federal Defendants acknowledge that "[s]hortly before  
20 the 2005 OCAP BiOp was completed, a fall midwater trawl survey of  
21 delta smelt revealed a substantial decline in the population  
22 index for the species" to the lowest ever. (Doc. 242-1, at 4.)  
23 The Federal Defendants do not concede that the existence of this  
24 data renders the BiOp arbitrary and capricious, because "limited  
25 analysis of this data existed, and the Service relied on the raw  
26 data, and its own professional judgments as the best available  
27 scientific and commercial data available." (*Id.*) Nevertheless,  
28

1 "the CALFED agencies have continued to assemble and analyze new  
2 data and information." (*Id.*) For example, scientists from  
3 CALFED agencies "recently" developed a document based upon the  
4 new data: the Interagency Ecological Program Synthesis of 2005  
5 Work to Evaluate the Pelagic Organism Decline (POD) in the Upper  
6 San Francisco Estuary (the "IEP POD Synthesis"). This document  
7 led the Federal Defendants to conclude that the OCAP for the CVP  
8 and SWP may affect Delta smelt in a manner or to an extent not  
9 previously considered. (IEP POD Synthesis, Doc. 240, Attachment  
10 1.)

11 On July 6, 2006, the Bureau requested that the FWS  
12 re-initiate consultation concerning the impact of the OCAP on the  
13 Delta smelt. (Doc. 240.) In a July 6, 2006 letter to the FWS,  
14 the Bureau acknowledged that "emerging data indicates an apparent  
15 substantial decline in the Delta smelt population index." (Doc.  
16 240-2.)

17 **1. No Dismissal or Stay.**

18 In light of the second re-initiation of consultation,  
19 federal defendants sought dismissal on prudential mootness  
20 grounds, a voluntarily remand without vacatur, or a stay pending  
21 the completion of reconsultation. (See Docs. 242-1, 273.) The  
22 motion for stay was joined by the DWR (Doc. 277), and various  
23 Defendant-Intervenors (Doc. 274). Plaintiffs opposed because  
24 Federal Defendants refused to withdraw the challenged BiOp and  
25 stated their intent to continue CVP and SWP operations under the  
26 disputed BiOp and its incidental take statements during the time  
27 period necessary to complete re-consultation, now projected to be  
28

1 July 2008, more than two and one-half water years following the  
2 effective date of the disputed BiOp. (See Doc. 279.)

3 Defendants' motion to dismiss on prudential mootness grounds  
4 was denied:

5 Plaintiffs' concerns have not been fully addressed by  
6 the reinitiation of consultation. Federal Defendants are  
7 relying in part on the challenged BiOps in operating  
8 the CVP and intend to continue to do so. The  
9 controversy over whether the BiOps and OCAP should have  
10 continued viability is real and substantial. and this  
11 court could provide relief, in the form of a decision  
12 invalidating the BiOps followed by hearings on interim  
13 remedies. Under these circumstances, it is not  
14 appropriate to deem this case prudentially moot.

15 (Doc. 301 at 18 (footnotes omitted).)

16 The motion for voluntary remand without vacatur was denied  
17 based on the general standard for vacatur set forth in *Natural*  
18 *Resources Defense Council v. U.S. Dept. of the Interior*, 275 F.  
19 *Supp. 2d* 1136, 1143 (C.D. Cal. 2002), which considers "the  
20 seriousness of the order's deficiencies" and "the disruptive  
21 consequences of an interim change that may itself be changed."  
22 No evidence or argument was presented regarding the nature of the  
23 prejudice that might result from invalidating the BiOp (*id.* at  
24 20), and numerous factual and legal disputes exist regarding the  
25 seriousness of the order's deficiencies (*see id.* at 27). The  
26 court was left to speculate what consequences to the species  
27 would result if injunctive relief were ordered against continued  
28 implementation of the disputed BiOp.

The stay motion, based on the primary jurisdiction doctrine,  
was denied on the authority of *Lockyer v. Mirant Corp.*, 398 F.3d  
1098, 1109 (9th Cir. 2005) (a party seeking a stay "must make out  
a clear case of hardship or inequity in being required to go

1 forward, if there is even a fair possibility that the stay for  
2 which he prays will work damage to someone else."). The order  
3 held: "Plaintiffs are entitled to have their complaint decided on  
4 the merits, particularly given the fact that Defendants continue  
5 to rely on the challenged BiOps as if they were lawfully  
6 enacted." (Doc. 301 at 33.) The apparent increasing jeopardy to  
7 the smelt by and after February of 2005 militates against further  
8 delay while FWS continue "to study" the issue of jeopardy, an  
9 exercise that has continued for almost a decade.

#### 10 11 **IV. POST-RECORD EVIDENTIARY DISPUTES**

##### 12 **A. Objections to Declaration of Ted Sommer.**

13 DWR offers the post-record declaration of Ted Sommer, Ph.D,  
14 to explain (1) the concept of salvage and its relationship to the  
15 take exceedence levels in the BiOp; (2) the operation of DSRAM;  
16 (3) and the manner in which DSRAM has been implemented since its  
17 inception.

18 Generally, "the focal point for judicial review should be  
19 the administrative record already in existence, not some new  
20 record made initially in the reviewing court." *Camp v. Pitts*,  
21 411 U.S. 138, 142 (1973). However, the Ninth Circuit recognizes  
22 three main exceptions to this rule, allowing courts to consider  
23 extra-record evidence:

24 (1) if necessary to determine "whether the agency has  
25 considered all relevant factors and has explained its  
26 decision," (2) "when the agency has relied on documents  
27 not in the record," or (3) "when supplementing the  
28 record is necessary to explain technical terms or  
complex subject matter."

*Southwest Ctr. for Biological Diversity v. U.S. Forest Service*,

1 100 F.3d 1443, 1450 (9th Cir. 1996). A court may also consider  
2 extra-record evidence "when plaintiffs make a showing of agency  
3 bad faith." *Nat'l Audubon Soc. v. U.S. Forest Serv.*, 46 F.3d  
4 1437, 1447 n.9 (9th Cir. 1993).

5 DWR maintains that the Sommer declaration explains  
6 "technical or complex subject matters" admissible under the  
7 exception for evidence "necessary to explain technical or complex  
8 subject matters." (Doc. 246-1 at 5-6 n.5.) Plaintiffs move to  
9 strike the declaration on the ground that subject matters covered  
10 by Mr. Sommer are "neither technical nor complex." (Doc. 305 at  
11 4 n.1.) Rather, Plaintiffs contend that the declaration is  
12 offered to explain the agency's post-BiOp experience with DSRAM  
13 in an effort to counter the Plaintiffs' argument that the DSRAM  
14 is wholly discretionary and contains no defined standards or  
15 enforceable requirements.

16 Generally, "post hoc rationalizations of the agency...cannot  
17 serve as a sufficient predicate for agency action." *Am. Textile*  
18 *Manuf. Inst. v. Donovan*, 452 U.S. 490, 539 (1981); *see also*  
19 *Sierra Club v. Bosworth*, 199 F. Supp. 2d 971, 986 (N.D. Cal.  
20 2002) (refusing to consider post hoc explanations that were  
21 "neither addressed nor supported by the record"). DWR does not  
22 disagree with this general principle, but instead insists that  
23 the declaration is offered only to explain complex and technical  
24 aspects of the incidental take exceedence levels and the DSRAM.

25 Paragraphs 11 through 15 of the Sommer Declaration concern  
26 the implementation measures taken under the DSRAM after the BiOp  
27 issued. There is no basis in the law for the admission of this  
28 post-record evidence. DWR does not assert otherwise.

1 Plaintiffs' motion to strike is **GRANTED** as to paragraphs 11  
2 through 15.

3 The information contained in the remainder of the Sommers  
4 declaration is drawn directly from the BiOp itself, explaining in  
5 plain language how the incidental take limits were set and how  
6 DSRAM operates. Although, much of the same information can be  
7 found in the BiOp, the subject matters covered are technical and  
8 complex and Dr. Sommer's declaration clarifies or explains them.  
9 This exception saves the remaining paragraphs of the Sommers  
10 declaration to explain the incidental take limits.

11 The motion to strike is **DENIED IN PART** as to the past record  
12 evidence paragraphs only.<sup>15</sup>

13  
14 **B. Federal Defendants' Renewed Objections to Previously**  
15 **Admitted Extra-Record Documents.**

16 The May 13, 2006 memorandum decision admitted certain extra-  
17 record documents, for limited purposes (Doc. 219), including  
18 Document 10 (a Powerpoint presentation by Michael Dettinger given  
19 to the Bay-Delta Authority on December 8, 2004 entitled  
20 "Uncertainties & CALFED Planning What Are Current Observations

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21 <sup>15</sup> In a footnote at the end of Plaintiffs' motion to  
22 strike the Sommer Declaration, Plaintiffs also challenge Federal  
23 Defendants' reliance on the declaration of Ann Lubas-Williams,  
24 which Federal Defendants filed with their response to Plaintiffs'  
25 motion for summary judgment/cross motion to dismiss. (See Doc.  
26 242-4.) The Lubas-Williams declaration concerns the  
27 implementation of DSRAM and the sources from which DWR plans to  
28 obtain water to protect Delta smelt in the near future. Federal  
defendants relied on her declaration primarily to support their  
motion to dismiss or for voluntary remand. No party has relied  
upon this declaration in the context of the pending motions; it  
was not considered by the court. It is unnecessary to rule on  
this motion to strike.

1 and Models Saying?") for two purposes. First, "for the limited  
2 purpose[] of determining whether []FWS failed to adequately  
3 consider the climate change issue and the scientific significance  
4 of any such failure....;" but not legal opinions. (Doc. 219 at  
5 25.) Second, to the extent appropriate, all twenty two extra  
6 record documents presented by Plaintiffs, including Document 10,  
7 may be referenced to aid the court's understanding of various  
8 technical concepts under the "technical terms and complex subject  
9 matter exception." (*Id.* at 32.)

10 In the footnote to their opposition brief, Federal  
11 Defendants renew their objection to consideration of any of the  
12 documents under the technical terms and complex subject matter  
13 exception. (Doc. 242-1 at 22 n.12.) The May 13, 2006 memorandum  
14 decision notes: "Defendants and Defendant Intervenors suggest  
15 that Plaintiff has failed to establish that the existing record  
16 is inadequate to explain the technical terms, but point to no  
17 authority requiring such a showing." (Doc. 219 at 30.) Federal  
18 Defendants now assert: "numerous courts, including the Supreme  
19 Court and district courts in this Ninth Circuit, have held that a  
20 record may not be supplemented for explanatory purposes unless  
21 the existing record has been demonstrated inadequate." (Doc.  
22 242-1 at 22 n.12.), citing an unpublished district court  
23 decision, *City of Santa Clarita v. United Stats Dept. Of*  
24 *Interior*, 2005 WL 2972987 at \*2 n.3 (C.D. Cal. 2005):

25 ...Plaintiffs bear the burden of making an initial  
26 showing that the administrative record is inadequate  
27 for effective judicial review and that one of the  
28 exceptions to record review applies. *Animal Defense*  
*Council v. Hodel*, 840 F.2d at 1436-38 (affirming  
district court order limiting review to administrative  
record and prohibiting discovery because plaintiffs did

1 not show record presented was insufficient for review  
2 or that any of the exceptions to record review were  
3 applicable)....

3 (emphasis added).

4 A district court decision not cited by Defendants, *Karuk*  
5 *Tribe of Cal v. U.S. Forest Serv.*, 379 F. Supp. 2d 1071, 1087  
6 (N.D. Cal. 2005), reiterated this holding:

7 The Ninth Circuit allows a reviewing court to consider  
8 extra-record materials in an APA case only under four  
9 narrow exceptions: (1) when it needs to determine  
10 whether the agency has considered all relevant factors  
11 and has explained its decision; (2) when the agency has  
12 relied upon documents or materials not included in the  
13 record; (3) when it is necessary to explain technical  
14 terms or complex matters; and (4) when a plaintiff  
15 makes a showing of agency bad faith. *Southwest Center*  
16 *for Biological Diversity v. United States Forest*  
17 *Service*, 100 F.3d 1443, 1450 (9th Cir. 1996). For  
18 extra-record material to be considered, a plaintiff  
19 must first make a showing that the record is  
20 inadequate. *Animal Defense Council v. Hodel*, 840 F.2d  
21 1432, 1437 (9th Cir.1988) ("The [plaintiff] makes no  
22 showing that the district court needed to go outside  
23 the administrative record to determine whether the  
24 [agency] ignored information"). At the \*1088 same  
25 time, "[a] satisfactory explanation of agency action is  
26 essential for adequate judicial review, because the  
27 focus of judicial review is not on the wisdom of the  
28 agency's decision, but on whether the process employed  
by the agency to reach its decision took into  
consideration all the relevant facts." *Asarco, Inc. v.*  
*U.S. Environmental Protection Agency*, 616 F.2d 1153,  
1160 (9th Cir.1980).

(emphasis added).<sup>16</sup> *Karuk Tribe*, and *Animal Defense Council v.*

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22 <sup>16</sup> Federal Defendants also cite *Pension Benefit Guar.*  
23 *Corp. v. LTV Corp.*, 496 U.S. 633, 654-655 (1990), in which the  
24 Supreme Court reasoned: "Here, unlike in *Overton Park*, the Court  
25 of Appeals did not suggest that the administrative record was  
26 inadequate to enable the court to fulfill its duties under  
27 § 706."

26 Federal Defendants quote *Pension Benefit* entirely out of  
27 context. The quoted language is drawn from a part of the opinion  
28 addressing the Second Circuit's ruling about the adequacy of  
procedures used by the defendant agency. Specifically, that  
court ruled that the agency acted arbitrarily and capriciously

1 *Hodel*, 840 F.2d 1432, 1437 (9th Cir. 1988), on which it relies,  
2 do stand for the proposition that, before admitting documents  
3 under any exception to the general rule against extra-record  
4 evidence, a court should require that a plaintiff make an initial  
5 showing that the existing record is insufficient. Here,  
6 defendants maintain that those documents plaintiffs have  
7 referenced to explain complex or technical matters, are "the cart  
8 before the horse," because Plaintiffs have not shown the existing  
9 record is inadequate.

10 First, Federal Defendants objection is arguably untimely.  
11 They did not cite cases requiring a preliminary showing of  
12 insufficiency when the motion to augment was briefed and heard.  
13 Nor did Federal Defendants timely move for reconsideration of the  
14 May 13, 2006 ruling on the motion to augment. Striking the

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16 because it failed to apprise the plaintiff of the material on  
17 which it was to base its decision, never gave plaintiff an  
18 adequate opportunity to offer contrary evidence, failed to  
19 proceed according to ascertainable standards, and failed to  
20 provide plaintiff a statement showing its reasoning. *Id.* at 653.  
21 One party claimed that *Overton Park* validated a court's order  
22 that an agency undertakes additional procedures. *Id.* The  
23 Supreme Court rejected this argument, reasoning that, at most,  
24 *Overton Park* "imposes a general 'procedural' requirement of sorts  
25 by mandating that an agency take whatever steps it needs to  
26 provide an explanation that will enable the court to evaluate the  
27 agency's rationale at the time of decision." *Id.* at 654. The  
28 Supreme Court then distinguished *Overton Park*, reasoning that  
"[h]ere, unlike in *Overton Park*, the Court of Appeals did not  
suggest that the administrative record was inadequate to enable  
the court to fulfill its duties under § 706." *Id.* at 655. This  
was a specific reference to language in *Overton Park* which  
criticized the lower courts for relying only on the litigation  
affidavits, rather than the whole administrative record. *Pension  
Benefit* sheds absolutely no light on the admissibility of extra-  
record evidence.

1 challenged documents now, would cause prejudice to Plaintiffs,  
2 who relied upon these rulings to prepare their dispositive  
3 motions.

4 Even assuming a timely and specific objection, on the  
5 merits, Plaintiffs' extra-record documents were properly  
6 admitted. Of these twenty-two documents, Plaintiffs' papers only  
7 referenced eight: Docs. 9, 10, 11, 12, 13, 20, 21 & 22. With the  
8 exception of Documents 12 and 22, all were admitted on multiple  
9 grounds. (Documents 12 and 22 were admitted for the limited  
10 purpose of explaining technical materials.) The documents and  
11 the bases for their admission are as follows:

12 Document 9: Summary of Annual Joint Meeting of California  
13 Bay-Delta Authority and Bay-Delta Public Advisory  
14 Committee (December 8-9, 2004).

15 Admitted "for the limited purpose of determining  
16 whether USFWS failed to adequately consider the  
17 EWA/CVPIA(b)(2) issue," "for the limited purposes  
18 of determining whether USFWS failed to adequately  
19 consider the climate change issue and the  
20 scientific significance of any such failure...,"  
21 and, as appropriate, to explain complex and  
22 technical matters.

23 Document 10: Climate Change Uncertainties & CALFED Planning:  
24 What Are Current Observations and Models Saying?  
25 Powerpoint presentation by Michael Dettinger, U.S.  
26 Geological Survey at the Scripps Institute for  
27 Oceanography, et al. to Bay-Delta Authority  
28 (December 8, 2004).

Admitted "for the limited purposes of determining  
whether USFWS failed to adequately consider the  
climate change issue and the scientific  
significance of any such failure," and as  
appropriate, to explain complex and technical  
matters.

Document 11: Summary of Annual Joint Meeting of California Bay-  
Delta Authority and Bay-Delta Public Advisory  
Committee (February 9-10, 2005).

1 Admitted for the limited purpose of showing that  
2 USFWS failed to consider relevant Delta smelt  
3 population data and its scientific significance,"  
and, as appropriate, to explain complex and  
technical matters.

4 Document 12: Letter from H. Candee and K. Poole, NRDC, to S.  
5 Thompson re Consultation on OCAP: Significant New  
Delta Smelt Information, Service (Feb. 14, 2005).

6 Admitted only to explain, as appropriate, complex  
7 and technical matters.

8 Document 13: Delta smelt abundance trends, Powerpoint  
9 presentation by Chuck Armor, DFG, to Bay-Delta  
Authority

10 Admitted for the limited purpose of showing that  
11 USFWS failed to consider relevant Delta smelt  
12 population data and its scientific significance,"  
and, as appropriate, to explain complex and  
technical matters.

13 Document 20: Supplemental Biological Opinion on CVP and SWP  
14 Operations, April 1, 2004 through March 31, 2006  
(Feb. 27, 2004).

15 Admitted "for the limited purpose of determining  
16 whether USFWS failed to adequately consider the  
EWA/CVPIA(b)(2) issue," and, as appropriate, to  
explain complex and technical matters.

17 Document 21: Future Water Availability in the West: Will there  
18 be enough? Powerpoint presentation by M. Dettinger  
to 24th Annual Conference on Water, Climate and  
19 Uncertainty: Implications for Western Water Law,  
Policy, and Management (June 11-13, 2003).

20 Admitted "for the limited purposes of determining  
21 whether USFWS failed to adequately consider the  
climate change issue and the scientific  
22 significance of any such failure..." and, as  
appropriate, to explain complex and technical  
23 matters.

24 Document 22: Letter from John W. Keys, Bureau, to Hon. George  
25 Miller, House of Representatives re Bureau's  
renewal of CVP water contracts (Dec. 23, 2004).

26 Admitted only to explain, as appropriate, complex  
and technical matters.

27 With the exception of Documents 12 and 22, Plaintiffs were  
28 permitted to reference these documents to show whether FWS

1 adequately considered included subject matter to support the  
2 BiOp. Although Plaintiffs did not expressly demonstrate that the  
3 record was insufficient, a finding of insufficiency can be  
4 implied from the rulings admitting the documents. For example,  
5 Document 10, the powerpoint presentation regarding "Climate  
6 Change Uncertainties & CALFED Planning" presented to the  
7 Bay-Delta Authority on December 8, 2004, references  
8 climatological information and issues not otherwise discussed in  
9 the administrative record, bearing on whether FWS failed to  
10 adequately consider the climate change issue. The same reasoning  
11 applies to Documents 9, 10, 11, 13, 20 & 21. As for Documents 12  
12 and 22, were which were only admitted under the complex and  
13 technical matters exception, no prior showing of insufficiency  
14 was made. However, Documents 12 and 22 were only referenced as  
15 secondary citations or for context. Even if, any document was  
16 admitted in error, no prejudice has resulted.

#### 17 18 **V. STANDARD OF REVIEW**

19 Summary judgment is appropriate where there are no genuine  
20 issues of material fact and the moving party is entitled to  
21 judgment as a matter of law. Fed. R. Civ. Pro. 56(c). This is a  
22 challenge to the lawfulness of a biological opinion brought under  
23 the ESA and the Administrative Procedure Act ("APA"). Agency  
24 decisions made under the ESA are governed by the APA, which  
25 requires that the agency action be upheld unless it is found to  
26 be "arbitrary, capricious, an abuse of discretion, or otherwise  
27 not in accordance with law," or "without observance of procedure  
28 required by law." 5 U.S.C. § 706(2) (A), (D). The inquiry is

1 designed to "ensure that the agency considered all of the  
2 relevant factors and that its decision contained no clear error  
3 of judgment." *Pacific Coast Fed'n of Fishermen's Ass'ns v. NMFS*,  
4 265 F.3d 1028, 1034 (9th Cir. 2001). Agency action should only  
5 be overturned if the agency has "relied on factors which Congress  
6 has not intended it to consider, entirely failed to consider an  
7 important aspect of the problem, offered an explanation for its  
8 decision that runs counter to the evidence before the agency, or  
9 is so implausible that it could not be ascribed to a difference  
10 in view or the product of agency expertise." *Id.* In sum, a  
11 court must ask "whether the agency considered the relevant  
12 factors and articulated a rational connection between the facts  
13 found and the choice made." *Id.* "A biological opinion is  
14 arbitrary and capricious and will be set aside when it has failed  
15 to articulate a satisfactory explanation for its conclusions or  
16 when it has entirely failed to consider an important aspect of  
17 the problem." *Greenpeace v. NMFS*, 80 F. Supp. 2d 1137, 1147  
18 (W.D. Wash. 2000). Alternatively, a biological opinion may also  
19 be invalid if it fails to use the best available scientific  
20 information as required by 16 U.S.C. § 1536(a)(2). *Id.* at 1150.

21 As a general rule, a court must defer to the agency on  
22 matters within its expertise. See *National Wildlife Federation*  
23 *v. National Marine Fisheries Service*, 422 F.3d 782, 798 (9th  
24 Cir. 2005). However, "[t]he deference accorded an agency's  
25 scientific or technical expertise is not unlimited." *Id.*  
26 "Deference is not owed when the agency has completely failed to  
27 address some factor consideration of which was essential to  
28 [making an] informed decision." *Id.* (internal citations and

1 quotations omitted).

2 A final BiOp is final agency action for judicial review  
3 purposes. *American Rivers, infra*, 126 F.3d at 1124-25.

4  
5 **VI. SUMMARY OF PLAINTIFFS' MOTION**

6 Plaintiffs move for summary judgment on the following  
7 grounds:

8 (1) First, the BiOp did not utilize the Best Available  
9 Science by: (a) failing to reference the "most recent Delta Smelt  
10 abundance data," namely the 2004 Fall Midwater Trawl Data; and  
11 (b) failing to consider the possible effects that climate change  
12 might have on the smelt's habitat.

13 (2) Second, the BiOp unlawfully relies upon the DSRAM as a  
14 mitigation measure because the DSRAM process is "entirely  
15 discretionary, uncertain, and unenforceable." In addition,  
16 Plaintiffs allege that Federal Defendants acted arbitrarily and  
17 capriciously by relying upon the EWA, CVPIA(b) (2), and/or VAMP  
18 programs as water sources necessary to implement the DSRAM.  
19 Plaintiffs allege that Federal Defendants have (a) failed to  
20 demonstrate that EWA, CVPIA and/or VAMP will continue to be  
21 available over the 20-year term of the BiOp and (b) failed to  
22 demonstrate that DSRAM can reliably operate without water assets  
23 from those programs.

24 (3) Third, there is no rational connection between the  
25 evidence in the record and the BiOp's "no jeopardy" conclusion.  
26 Specifically, Plaintiffs allege (a) that the BiOp's focus on  
27 salvage as the measure of harm to the species underestimates  
28 project impacts and results in a meaningless take limit; and (b)

1 that the BiOp fails to explain how its no jeopardy conclusion can  
2 be justified in light of the identified adverse effects of the  
3 project, along with indirect and cumulative effects.

4 (4) Fourth, the BiOp failed to adequately analyze whether  
5 the OCAP's impacts on the Delta smelt's critical habitat are  
6 consistent with the smelt's recovery. In addition, the Federal  
7 Defendants failed to adequately take into account smelt habitat  
8 areas other than defined by X2.

9 (5) Finally, the BiOp is unlawfully narrow in its scope  
10 because it (a) fails to provide a comprehensive analysis of the  
11 effects of constructing facilities required to carry out long  
12 term CVP and SWP operations and (b) fails to analyze the impacts  
13 of the projects delivering the full amount of water authorized  
14 under CVP and SWP water service contracts.

## 15 16 **VII. DISCUSSION**

### 17 **A. Threshold Issues.**

#### 18 **1. ESA 60-day notice requirement.**

19 The San Luis Parties argue that Plaintiffs have not complied  
20 with the ESA's citizen suit notice requirement, 16 U.S.C. §  
21 1540(g)(2)(A)(I), that written notice be given to "the Secretary,  
22 and to any alleged violator" at least sixty days in advance of  
23 filing suit. Failure to give this notice is a bar to bringing  
24 suit under the ESA. *Southwest Ctr. for Biological Diversity v.*  
25 *U.S. Bureau of Reclamation*, 143 F.3d 515, 520 (9th Cir. 1998).

26 In *American Rivers v. National Marine Fisheries Serv.*, 126  
27 F.3d 1118, 1124-25 (9th Cir. 1997), the Ninth Circuit held that  
28 issuance of a biological opinion is a final agency action that is

1 properly pled as a challenge under the APA, rather than as a  
2 citizen suit claim under the ESA. Failure to comply with the 60-  
3 day notice requirement does not deprive the court of  
4 jurisdiction. *Id.*

5 The San Luis Parties advocate an approach that ignores  
6 *American Rivers*,<sup>17</sup> taken in an unpublished district court  
7 opinion, *Pacific Coast Fed' of Fishermen's Ass'ns v. U.S. Bureau*  
8 *of Reclamation*, 2006 WL 1469390 at 27 n.8 (N.D. Cal. 2006).  
9 *Pacific Coast Federation* declined to apply *American Rivers'*  
10 general rule because the injunctive relief the Plaintiffs sought  
11 went beyond simply having the biological opinion invalidated.  
12 The *Pacific Coast Federation* Plaintiffs sought to have any new  
13 biological opinion first reviewed by the court. This requested  
14 relief, fell outside the scope of the APA but was "within the  
15 scope of the ESA and thus trigger[ed] the notice period  
16 requirement." *Id.* Here, the requested relief is invalidation of  
17 the BiOp, a remedy undeniably available under the APA. *American*  
18 *Rivers* controls. There was no need to comply with the ESA 60-day  
19 notice requirement. The district court has jurisdiction over APA  
20 review of the BiOp.

21 **2. Jurisdiction to Review Challenges to Early**  
22 **Consultation and Preliminary Biological Opinion.**

23 Defendants contend the case is not ripe for decision. The  
24 BiOp covers not only current operations, but also a variety of  
25 future actions, some subject to formal consultation, others to

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26  
27 <sup>17</sup> At least one district court has followed the holding in  
28 *American Rivers*. See *NRDC v. Rodgers*, 381 F. Supp. 2d 1212, 1230  
(E.D. Cal. 2005).

1 early consultation:

2 This biological opinion covers formal and early  
3 consultation for the operations of the CVP and SWP. The  
4 formal consultation effects described in this  
5 biological opinion cover the proposed 2020 operations  
6 of the CVP including the Trinity River Mainstem ROD  
7 (Trinity ROD) flows on the Trinity River, the increased  
8 water demands on the American River, the delivery of  
9 CVP water to the proposed Freeport Regional Water  
10 Project (FRWP), water transfers, the long term  
11 Environmental Water Account (EWA), the operation of the  
12 Tracy Fish Facility, and the operation of the SWP-CVP  
13 intertie. The effects of operations of the SWP are also  
14 included in this opinion and include the operations of  
15 the North Bay Aqueduct, the Suisun Marsh Salinity  
16 Control Gates, the Skinner Fish Facility and water  
17 transfers.

18 Early consultation [issues address] the effects of  
19 operations of components of the South Delta Improvement  
20 Program (SDIP). These operations include pumping of  
21 8500 cubic feet per second (cfs) at the SWP and Banks  
22 Pumping Plant (hereafter referred to as 8500 Banks),  
23 permanent barrier operations in the South Delta, the  
24 long term EWA, water transfers, and CVP and SWP  
25 operational integration. There are two separate effects  
26 sections in this biological opinion, one for Formal  
27 Consultation and one for Early Consultation. In  
28 addition, there is an incidental take for formal  
consultation and a preliminary incidental take for  
early consultation.

(AR 2, 248.)

The San Luis Parties object that the early consultation  
portions of the BiOp are not final agency action and any  
challenges to the early consultation process are not subject to  
judicial review. Early consultation, by definition, results in  
only a "preliminary opinion" and in a preliminary incidental take  
statement that "does not constitute authority to take listed  
species." 50 C.F.R. § 402.11(e). Upon request for  
"confirmation" of a preliminary biological opinion, FWS will  
review the proposed action to determine if there have been  
"significant changes in the action as planned or in the

1 information used during early consultation." § 402.11(f).  
2 Within 45 days of such request, FWS must either confirm the  
3 preliminary biological opinion or request formal consultation.  
4 *Id.*

5 Plaintiffs concede that they "are not challenging the  
6 validity of FWS's early consultation or its preliminary  
7 biological opinion regarding certain segregated components of the  
8 2004 OCAP." (Doc. 306 at 37.) Rather, Plaintiffs argue that the  
9 portion of the BiOp covering formal consultation is flawed  
10 because it fails to examine the full impacts of all aspects of  
11 the 2004 OCAP. (Doc. 306 at 37.) Plaintiffs maintain the formal  
12 consultation should have covered certain planned actions included  
13 in the early consultation that are interdependent with other  
14 planned actions not included in either consultation. This claim  
15 is cognizable, as it challenges the scope of the formal  
16 consultation and the completeness of evaluation of overall OCAP  
17 operations on jeopardy to the smelt, not the lawfulness of the  
18 early consultation on future actions.

19 **B. The Biological Opinion Unlawfully Relies Upon**  
20 **Uncertain, Unenforceable Mitigation Measures.**

21 The BiOp concludes that the "operations of the Projects  
22 under formal consultation...will result in adverse effects to the  
23 delta smelt through entrainment at the CVP and SWP facilities and  
24 by drawing delta smelt into poorer quality habitat in the south  
25 delta. However with the inclusion of the conservation measures  
26 described above and the implementation of the DSRAM, these  
27 adverse effects would be avoided or minimized." (AR 467  
28 (emphasis added).) The "conservation measures" mentioned in the

1 BiOp's conclusion are various regulatory mechanisms already in  
2 place to "provide protection to delta smelt and/or their  
3 habitats," including D-1641, the EWA, CVPIA (b) (2) water, and  
4 VAMP. (AR 421-22, 466-67.)

5 **1. Law Governing Mitigation Measures.**

6 Mitigation measures must be "reasonably specific, certain to  
7 occur, and capable of implementation; they must be subject to  
8 deadlines or otherwise-enforceable obligations; and most  
9 important, they must address the threats to the species in a way  
10 that satisfies the jeopardy and adverse modification standards."  
11 *Ctr. for Biological Diversity v. Rumsfeld*, 198 F. Supp. 2d 1139,  
12 1152 (D. Ariz. 2002) (citing *Sierra Club v. Marsh*, 816 F.2d 1376  
13 (9th Cir. 1987)); see also *NWF v. NMFS*, 481 F.3d 1224 at \*12 &  
14 n.16 ("Although the record does reflect a general desire to  
15 install structural improvements [to benefit fish] where feasible,  
16 it does not show a clear, definite commitment of resources for  
17 future improvements.").

18 Plaintiffs allege that, in depending on the DSRAM and the  
19 other "conservation measures" to support its no jeopardy  
20 conclusion, the BiOp unlawfully relies upon uncertain,  
21 unenforceable mitigation measures which do not constitute a  
22 clear, definite commitment of resources. Specifically,  
23 Plaintiffs argue: (a) the DSRAM process is "entirely  
24 discretionary, uncertain, and unenforceable and (b) the  
25 biological opinion unjustifiably assumes that the other,  
26 currently operational "conservation measures" (e.g., the EWA and  
27 CVPIA(b) (2) water) will continue to be available for use by DSRAM  
28 in the future.

1                   **2.     The DSRAM is Unlawfully Uncertain and**  
2                   **Unenforceable.**

3                   All Defendants argue that the DSRAM is an effective adaptive  
4 management program that provides the agency the necessary  
5 remedial flexibility that makes the BiOp lawful. The BiOp  
6 describes the DSRAM as follows:

7                   The delta smelt risk assessment matrix (DSRAM) consists  
8 of month by month criteria which, when exceeded will  
9 trigger a meeting of the Delta Smelt Working Group  
10 (Working Group). The purpose of the DSRAM is to take  
11 actions to protect delta smelt in a proactive manner  
12 prior to salvage events....The DSRAM is an adaptive  
13 management tool which may be further modified by the  
14 Working Group/WOMT as new information becomes  
15 available, without undergoing formal reconsultation....  
16 Data will be updated at least weekly to determine the  
17 need for a meeting.

18                   Should a triggering criterion be met or exceeded,  
19 Reclamation and/or DWR will inform the members of the  
20 Working Group and the Working Group will determine the  
21 need to meet. Any member of the Working Group may set  
22 up a meeting of the Working Group at any time. A  
23 meeting of the Working Group may consist of an  
24 in-person meeting, a conference call, or a discussion  
25 by email. If needed, the Working Group will meet prior  
26 to the weekly meetings of the DAT and the WOMT and  
27 information will be shared with these groups.

28                   Should a meeting of the Working Group prove necessary,  
the group will decide whether to recommend a change in  
exports, change in south delta barrier operations, San  
Joaquin River flows, or a change in delta cross channel  
operations, and the extent and duration of the  
potential action. These potential actions are listed in  
the DSRAM by the months wherein each of these tools  
generally become available. The group will recommend  
actions which will be shared with the DAT and forwarded  
to the WOMT for discussion and potential  
implementation. This recommendation will include a  
discussion of the level of concern for delta smelt and  
will include who participated in the working group  
discussions. All dissenting opinions and/or discussion  
points will also be forwarded to the WOMT. The Working  
Group will meet at least weekly throughout the period  
in which the triggering criteria are met or exceeded,  
to determine the need to provide further  
recommendations to the WOMT.

Notes and findings of Working Group meeting will be

1 submitted to the Service and members of the WOMT for  
2 their records. The WOMT will respond to the Working  
3 Group's recommendations and the actions taken by the  
4 WOMT will be summarized by Reclamation and/or DWR  
5 annually and submitted to all WOMT agencies.

6 If an action is taken, the Working Group will follow up  
7 on the action to attempt to ascertain its  
8 effectiveness. An assessment of effectiveness will be  
9 attached to the notes from the Working Group's  
10 discussion concerning the action.

11 (AR 344-45 (emphasis added).)

12 The trigger criteria, which vary slightly from month to  
13 month, are set forth in a table (or matrix) at page 100 of the  
14 BiOp. (AR 346.) The criteria include: (1) the previous year's  
15 fall midwater trawl recovery index; (2) the risk of smelt  
16 entrainment based upon the location of X2; (3) the estimated  
17 duration of the smelt spawning period based upon water  
18 temperature; (4) the presence of spawning female smelt; (5) the  
19 proximity of the smelt to the Project pumping facilities; and,  
20 (6) a salvage trigger for adult smelt (calculated as the ratio of  
21 adult smelt salvage to the FMWT index) and juvenile smelt (set at  
22 zero for May and June, the months of the year during which  
23 salvage of smelt is highest). (AR 346-49.)

24 Plaintiffs argue that the DSRAM is not "reasonably specific,  
25 certain to occur, and capable of implementation" because: (1) the  
26 DSWG has complete discretion over whether to meet and whether to  
27 recommend mitigation measures; (2) even if the DSWG meets and  
28 recommends mitigation measures, the WOMT group is free to reject  
any recommendations; (3) there are no standards to measure the  
effectiveness of actions taken; (4) reconsultation is not  
required should mitigation measures prove ineffective; and (5)  
ultimately, no action is ever required.

1 DWR responds that implementation of the DSRAM process is  
2 "mandatory." For example, the incidental take statement requires  
3 that the projects shall be implemented "as described" in the  
4 BiOp. (AR 475.) Because the BiOp "describes" operation of the  
5 DSRAM, DWR asserts that its implementation is made mandatory by  
6 the incidental take statement's command that the project shall be  
7 implemented "as described;" if a DSRAM triggering criteria is  
8 met, the DSWG "will determine the need to meet." (AR 344  
9 (emphasis added).) If circumstances warrant action, the DSWG  
10 will recommend fish protection actions and forward those  
11 recommendations to the WOMET. (*Id.*) The BiOp provides that the  
12 DSWG "will meet at least weekly throughout the period in which  
13 the triggering criteria are met or exceeded, to determine the  
14 need to provide further recommendations to the WOMET." (*Id.* at  
15 345 (emphasis added).) The WOMET must then "respond" to DSWG's  
16 recommendations. (*Id.*) If actions are taken, the DSWG will  
17 monitor the action to determine its effectiveness. (*Id.*)

18 DWR correctly asserts that the DSRAM process must be  
19 followed; this does not address Plaintiffs' argument: that the  
20 DSRAM process itself does not require any mitigation actions be  
21 taken. Nothing in DSRAM requires the DSWG to make action  
22 recommendations, whatever the circumstances, and no criteria  
23 prescribe when the WOMET must act to effect DSWG's  
24 recommendations.

25 DWR responds that as adaptive management, "DSRAM is  
26 intentionally flexible, taking into consideration the  
27 uncertainties surrounding delta smelt population abundance and  
28 dynamics...[D]elta smelt abundance has fluctuated widely, without

1 a clear explanation why. While experts can monitor trends in  
2 delta smelt populations, estimating overall population abundance  
3 presently is 'not possible,' nor are the sources of year-to-year  
4 variability in abundance well understood." (Doc. 246-1 at 12. )  
5 DWR suggests that "hard-wiring" the DSRAM to require specific  
6 actions be taken when triggering criteria occur would impair the  
7 DSRAM's flexibility. For example, the trigger for salvage of  
8 juvenile smelt is set at zero. This trigger was designed not to  
9 precipitate a meeting every time that standard is exceeded, but  
10 to cause heightened awareness of conditions that might require  
11 protective action. (Doc. 246-1, at 12, citing AR at 8217-18.)

12 The conflict between Defendants' choice of a flexible  
13 management approach and Plaintiffs' concern to ensure enforceable  
14 protective actions are taken when necessary, highlights the  
15 extent to which overly flexible adaptive management may be  
16 incompatible with the requirements of the ESA. Commentators  
17 recognize that adaptive management schemes do not fit neatly  
18 within the ESA's existing regulatory structure. See *J.B. Ruhl,*  
19 *Taking Adaptive Management Seriously: A Case Study of the*  
20 *Endangered Species Act*, 52 U. Kan. L. Rev. 1249, 1284 (2004) ("The  
21 [ESA] as a whole lacks a cohesive adaptive management  
22 architecture...."). H. Doremus, *Adaptive Management, The*  
23 *Endangered Species Act, and the Institutional Challenges of "New*  
24 *Age" Environmental Protection*, 41 Washburn. L. J. 50, 52  
25 (2000) ("Adaptive Management...runs counter to human nature and  
26 the current structure of our management institutions."); ("One  
27 key institutional challenge is to combine the flexibility  
28 required by adaptive management with the long-term certainty we

1 often seek through our legal and political institutions.”) 41  
2 Washburn L. J. at 55.

3 The case law sheds little light on how to harmonize these  
4 competing objectives. The parties cite no cases applying the  
5 “reasonably specific, certain to occur, and capable of  
6 implementation” concept (or any closely related doctrine) to  
7 mitigation measures employed under an adaptive management  
8 protocol. Most cases the parties cite are either wholly  
9 inapplicable or factually distinguishable.

10 For example, mitigation measures have been found unlawfully  
11 uncertain because their implementation was not within the control  
12 of the relevant federal agencies. *National Wildlife Federation*  
13 *v. NMFS*, 254 F. Supp. 2d 1196, 1213 (D. Or. 2003), invalidated a  
14 2000 biological opinion addressing the effects of the operation  
15 of the Federal Columbia River Power System (“FCRPS”) on several  
16 listed fish species. A 2000 biological opinion concluded that  
17 continued operation of the FCRPS would jeopardize several of the  
18 species and adversely modify their critical habitat and adapted  
19 mitigation measures to avoid jeopardy. The mitigation measures  
20 included a variety of short- and long-term state, regional,  
21 tribal, and private off-site mitigation actions. The plaintiffs  
22 argued that reliance on such “uncertain and vaguely defined  
23 actions of third parties to protect and restore salmon habitat,”  
24 violated the “reasonably certain to occur” standard. *Id.* at  
25 1209. The district court agreed, concluding that the no jeopardy  
26 determination unlawfully relied on “non-federal off-site  
27 mitigation actions that are not reasonably certain to occur.”  
28 *Id.* at 1214. See also *Sierra Club v. Marsh*, 816 F.2d 1376, 1385

1 (9th Cir. 1987) (invalidating biological opinion that relied on  
2 mitigation measure involving the transfer of 188 acres of  
3 marshland from private ownership to a publicly owned wildlife  
4 refuge; land remained under private control and subject to  
5 easements that rendered the land valueless for mitigation  
6 purposes, and private owners and local government indicated  
7 intent to increase use of one of the easements); *Oregon Natural*  
8 *Desert Ass'n v. Lohn*, --- F. Supp. 2d ---, 2007 WL 1170629 (D.  
9 Or. 2007) (setting aside biological opinion in part because it  
10 overly relied on the actions of private individuals who had a  
11 poor past record of compliance with standards); *Florida Key Deer*  
12 *v. Brown*, 364 F. Supp. 2d 1345, 1355-56 (S.D. Fla. 2005) (setting  
13 aside biological opinion that relied on mitigation measures to be  
14 implemented by private landowners; nothing compelled the  
15 landowners to act and "the record indicate[d] that some  
16 landowners entirely disregarded [prior mitigation measures]").

17 Here, the BiOp's mitigation measures are largely under the  
18 control of the action agency (the Bureau), which, operating in  
19 concert with the DWR, directly regulates water pumping and  
20 releases from upstream reservoirs. *Natural Resources Defense*  
21 *Council v. Rodgers*, 381 F. Supp. 2d 1212, 1241 (E.D. Cal. 2004),  
22 does not provide guidance. In that case, plaintiffs contended a  
23 BiOp's mitigation measures were not reasonably certain to occur  
24 because the action agency had a poor track record of following  
25 through on prior commitments. The acknowledging that the  
26 agency's track record was "discouraging" district court  
27 recognized that the agency had made some progress toward  
28 implementing its prior commitments, *id.*, and declined to find

1 that the new commitments were not certain to occur. *Id.*  
2 However, the Rogers plaintiffs did not attack the efficacy of the  
3 mitigation measures themselves, only the likelihood that the  
4 agency would not satisfy its commitment to implement them. Here,  
5 Plaintiffs challenge the inherent uncertainty and  
6 unenforceability of the DSRAM and the other conservation  
7 measures.

8 Plaintiffs cite *American Rivers v. U.S. Army Corps of*  
9 *Engineers*, 271 F. Supp. 2d 230, 252 (D.D.C. 2003), where, despite  
10 the fact that a prior biological opinion required the Corps to  
11 implement flow restrictions to mitigate impacts to listed  
12 species, the Corps "made it perfectly clear" to the district  
13 court "that it ha[d] no intention of ensuring that its future  
14 operations will be consistent" with the mitigation requirements.  
15 *Id.* at 253. A motion for preliminary injunction was granted:  
16 "Plaintiffs will be likely to prove that the 2003 Supplemental  
17 BiOp violated the ESA and APA by improperly and unreasonably  
18 relying on future actions by the Corps that are virtually certain  
19 not to occur." *Id.* at 254 (emphasis added). Here, in contrast,  
20 there is no such "smoking gun" evidence of the agency's intent to  
21 disregard its mitigation responsibilities, just no definite,  
22 certain, or enforceable measures.

23 *Center for Biological Diversity v. Rumsfeld*, 198 F. Supp. 2d  
24 1139, 1151-53 (D. Ariz. 2002) addressed a biological opinion that  
25 concluded the Army's continued operations at Fort Huachuca,  
26 Arizona would not cause jeopardy to listed species that relied on  
27 flows from the Upper San Pedro River, even though rapid  
28 development in the area and uncontrolled groundwater pumping at

1 the Fort posed threats to the species. The "no jeopardy" finding  
2 was premised on several required mitigation measures.

3 First, the Army had to develop and implement an on-base plan  
4 to protect and maintain populations of listed species and  
5 habitats; *id.* at 1148, even though the on-base plan was not  
6 designed to address the underlying problem of diminishing flows  
7 in the San Pedro River, *see id.* at 1153. Second, the Army had to  
8 develop a regional water resources plan, sufficient to maintain  
9 flows in the San Pedro River to sustain the protected species and  
10 their habitats. *Id.* at 1148. The biological opinion  
11 acknowledged, that the Army had no authority over the  
12 implementation of the regional plan and was only required to  
13 participate along with other stakeholders. *Id.* at 1153. Third,  
14 the Army had to monitor progress and report on the implementation  
15 of the various projects. *Id.* at 1149. Fourth, the biological  
16 opinion assumed the operation of a water recharge facility  
17 designed to temporarily delay the impact of groundwater  
18 overdraft, which the *Rumsfeld* court acknowledged was "subject to  
19 substantial uncertainty." *Id.* at 1145.

20 Leaving it to the Army and other interested parties to  
21 develop a regional water management plan "enables the Army to  
22 sidestep any direct responsibility for addressing deficit  
23 groundwater pumping," and was "an admission that what is  
24 currently on the table as far as mitigation measures is  
25 inadequate to support the [] 'no jeopardy' decision." 198 F.

1 Supp. 2d at 1153-54.<sup>18</sup>

2 DWR distinguishes *Rumsfeld*, claiming it is like *NWF v. NMFS*,  
3 254 F. Supp. 2d 1196, where mitigation measures were unlawful  
4 because they depended upon third parties without any guarantee  
5 that those parties would implement the measures. Here, the DSRAM  
6 does not depend on actions by outsiders. *Rumsfeld* further found  
7 that the Army's on-base mitigation measures were insufficient  
8 because they did not require any measurable goals or an  
9 implementation schedule:

10 There are no requirements in the Final BO to reduce  
11 reliance on groundwater pumping by any particular

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12 <sup>18</sup> *Rumsfeld* also found fault with the biological opinion's  
13 monitoring plan, characterizing it as a means of delaying the  
14 implementation of necessary mitigation measures:

15 The Army may not delay identifying the measures  
16 necessary to mitigate the effects of its ten-year plan  
17 based on the monitoring provisions in the Final BO....

18 The Final BO's monitoring requirements do not measure  
19 the success or failure of the on-base and/or regional  
20 mitigation measures to reduce the groundwater deficit.  
21 It only requires the Army to develop "a monitoring  
22 program designed to assess progress," and requires an  
23 annual review of the AWRMP, as to which projects have  
24 been implemented the past year and which are to be  
25 implemented in the coming year. Especially since the  
26 Final BO and the AWRMP fail to quantify the remedial  
27 value of the proposed projects, simply reporting  
28 project implementation is not a meaningful assessment  
of the success or failure of the mitigation measures in  
protecting the water umbel, willow flycatcher, and  
critical habitat from adverse impact. Such an  
assessment would require systematic monitoring of  
either San Pedro baseflows or the groundwater aquifer.

198 F. Supp. 2d at 1154 (internal record citations omitted). No  
such failure is alleged here. Plaintiffs do not suggest that the  
monitoring called for by the DSRAM is flawed.

1           amount or to achieve any measurable goals with respect  
2           to water recharge. There is no date certain  
3           implementation requirement. The MOA includes a laundry  
4           list of possible mitigation measures related to water  
5           conservation and recharge that the Army may implement,  
6           but it does not establish which projects have to be  
7           undertaken, when, nor what the conservation objectives  
8           are for the respective projects. Without such  
9           specificity, the mitigation measures in the Final BO  
10           are merely suggestions.

11        *Id.* at 1153 (emphasis added). *Rumsfeld* stands for the  
12        proposition that, at a minimum, a mitigation strategy must have  
13        some form of measurable goals, action measures, and a certain  
14        implementation schedule; i.e., that mitigation measures must  
15        incorporate some definite and certain requirements that ensure  
16        needed mitigation measures will be implemented.

17           Here, the agency's BiOp admits that mitigation measures are  
18        essential. The no jeopardy finding is conditioned on  
19        conservation measures and the DSRAM. (See AR 422.)

20           DWR's protestations that hard-wiring the DSRAM would cripple  
21        its effectiveness ignore the ESA's requirements of reasonable  
22        certainty, timetables, and enforceability standards for  
23        mitigation measures. The existing DSRAM process provides  
24        absolutely no certainty that any needed smelt protection actions  
25        will be taken at any time by DSWG or WOMET. The DSRAM is in  
26        substance an organizational flow chart that prescribes that  
27        certain administrative processes (meetings) will be held whenever  
28        a trigger criteria is met or exceeded. Although mitigation  
29        measures are identified, no defined mitigation goals are  
30        required, nor is any time for implementation prescribed.  
31        Incorporating some ascertainable mitigation standards and  
32        enforceable mitigation measures is not inconsistent with avoiding

1 unduly restrictive "hard-wiring" of the DSRAM.

2       *National Wildlife Federation v. Babbitt*, 128 F. Supp. 2d  
3 1274 (E.D. Cal. 2000) ("*NWF v. Babbitt*"), addresses an adaptive  
4 management approach that accommodated uncertainty by allowing  
5 regulators to apply new information gathered through monitoring  
6 to adjust and employ well-defined mitigation measures. There, a  
7 Habitat Conservation Plan ("HCP") called for a development fee to  
8 be collected on all acreage developed in the Natomas Basin, north  
9 of Sacramento, home to a number of endangered species. The HCP  
10 also incorporated adaptive management provisions designed to  
11 allow the mitigation fee to be modified if new information  
12 justified an adjustment:

13           The [HCP] recognizes that the current state of  
14 knowledge as to the conservation needs of protected  
15 species is imperfect, and that its assumptions as to  
16 the amount, location, and pace of development in the  
17 Basin and as to the adequacy of the mitigation fee to  
18 accommodate increased expenses may prove inaccurate.  
19 The Plan addresses these uncertainties through its  
20 "adaptive management" provisions, which permit the  
21 Plan's conservation strategy to be adjusted based on  
22 new information. The HCP's conservation program can be  
23 modified under the adaptive management provisions if:  
24 (1) new information results from ongoing research on  
25 the GGS or other covered species; (2) recovery  
26 strategies under Fish and Wildlife Service recovery  
27 plans for the GGS or the Swainson's hawk differ from  
28 the measures contemplated by the HCP; (3) certain of  
the HCP's mitigation measures are shown through  
monitoring to require modification; or (4) the HCP's  
required minimum block sizes for reserve lands are  
shown to require revision. The Plan anticipates that  
the NBC will make discretionary decisions in future  
years based upon new information. The NBC will decide,  
for example, which lands to purchase, depending on a  
variety of future considerations difficult now to  
predict, and whether to change the mix of in and out of  
Basin reserve lands and agricultural as opposed to  
marsh reserve lands.

1 *Id.* at 1281-82.<sup>19</sup>

2 Here, the adaptive management process has no quantified  
3 objectives or required mitigation measures. Although the process  
4 must be implemented by holding meetings and making  
5 recommendations, nothing requires that any actions ever be  
6 taken.<sup>20</sup> The BiOp asks the court to trust the agency to protect  
7 the species and its habitat. Notwithstanding any required  
8 deference to expertise, the ESA requires more.

9 All parties agree that adaptive management can be beneficial  
10 and that flexibility is a necessary incident of adaptive  
11 management. The law requires that a balance be struck between  
12 the dual needs of flexibility and certainty. The DSRAM, as  
13 currently structured, does not provide the required reasonable  
14 certainty to assure appropriate and necessary mitigation measures  
15 will be implemented. The DSRAM does not provide reasonable  
16 assurance admitted adverse impacts of the 2004 OCAP will be  
17 mitigated. This aspect of the BiOp is arbitrary and capricious

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18  
19 <sup>19</sup> In *NWF v. Babbitt*, the district court expressly approved  
20 the design of the HCP as a whole, but invalidated the permit  
21 issued in connection with the plan on grounds wholly independent  
22 from the design of the HCP and/or the adaptive management plan.  
23 See *128 F. Supp. 2d* at 1298-99.

24 <sup>20</sup> The only clearly enforceable standard or benchmark in  
25 the BiOp is compliance with the BiOp's "hard" take exceedence  
26 limits. But, the existence of enforceable take limits does not  
27 shield the DSRAM from scrutiny. There is no provision to allow  
28 the "hard" take exceedence limits to be adjusted to reflect new  
information about the species. Moreover, the BiOp expressly  
recognizes that the take limits alone are not enough to prevent  
jeopardy, requiring, among other things, implementation of the  
DSRAM as a reasonable and prudent measure. (See AR 475 ("The  
Project shall be implemented as described.") This is exactly the  
reason why the DSRAM must be made more certain and enforceable.

1 and contrary to law. Plaintiffs' motion for summary adjudication  
2 as to this claim is **GRANTED**. The agency has not provided a  
3 reasonable explanation showing the DSRAM will satisfy ESA  
4 requirements to assure survival and recovery of the Delta smelt.

5 The Ninth Circuit's recent *NWF v. NMFS* decision suggests  
6 that mitigation measures that are not reasonably certain to occur  
7 should be excluded from the agency's no jeopardy analysis. See  
8 481 F.3d 1224 at \*12 n.16.<sup>21</sup> Because mitigation is  
9 insufficiently certain to occur under the DSRAM, the DSRAM cannot  
10 cure other shortcomings of the BiOp.

11 **3. Plaintiffs' Alternative Argument that the BiOp is**  
12 **Arbitrary and Capricious Because DSRAM Depends**  
13 **Upon EWA, VAMP, CVPIA(b) (2) Water, Programs that**  
14 **are Uncertain in Terms of Funding and**  
15 **Effectiveness.**

16 Plaintiffs maintain that the DSRAM cannot feasibly be  
17 implemented without adequate water assets from the EWA,  
18 CVPIA(b) (2), and VAMP programs. Plaintiffs allege that  
19 Defendants have not demonstrated that adequate assets from these  
20 programs will be available during the 20 year term of the BiOp.  
21 (See Doc. 306 at 17.)

22 Plaintiffs correctly observe that the BiOp does not assure  
23 that adequate water assets from these programs will be available  
24 for future use under DSRAM. The BiOp itself acknowledges that  
25 "[a]lthough VAMP and [EWA] have helped to ameliorate these  
26 threats, it is unclear how effective these will continue to be  
27 over time based on available funding and future demands for

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28 <sup>21</sup> As of the date of oral argument, the mandate has not yet  
issued in *NWF v. NMFS*.

1 water." (AR 367-68.) The BiOp recognizes that the "EWA Agencies  
2 envision implementation of a long-term EWA as part of the  
3 operation of the Project." (AR 335.) However, the BiOp cannot  
4 and does not commit to implement the EWA in the long run. (*Id.*)

5 The record reveals that the loss of EWA assets will "reduce  
6 the ability of the EWA agencies to provide [] fish  
7 protections...." (SAR 20.) Plaintiffs refer to statements made  
8 by FWS's D. Harlow during an annual joint meeting of CALFED and  
9 the Bay-Delta Public Advisory Committee, that a proposal to  
10 change CVPIA(b)(2) policy would "change fish protection  
11 envisioned in the Record of Decision (ROD)." (Doc. 9 at 4.) At  
12 the same time, Mr. Harlow also noted that this would "not  
13 necessarily diminish fish protection." (*Id.*) However, he opined  
14 that such a change would "necessitate an increase in the size of  
15 the EWA." (*Id.*) National Oceanic and Atmospheric Administration  
16 ("NOAA") staff questioned FWS's reliance on the EWA in the BiOp,  
17 noting that EWA assets would likely be used up for protective  
18 actions during the winter, before the peak months for Delta smelt  
19 salvage (May and June). (AR 8574.)

20 Plaintiffs' claim rests in part on the assumption that the  
21 EWA, CVPIA(b)(2), and VAMP programs are the only mechanisms by  
22 which DSRAM may be implemented. The record does not support this  
23 assumption. Under the BiOp, the DSWG is tasked to make  
24 recommendations regarding fish protection actions by selecting  
25 from a list of "tools for change," which include: (1) "export  
26 reduction[s] at one or both facilities"; (2) "change[s] in  
27 barrier operations"; (3) "change[s] in San Joaquin River flows";  
28 and (4) "change[s] [in the] position of cross channel gates."  
(AR 346 and 348 n.7.) No mention is made of the EWA,

1 CVPIA(b) (2), or VAMP in the DSRAM or its description of the  
2 "tools for change." DWR rejoins that, regardless of whether  
3 these programs are fully funded and/or remain functional  
4 mechanisms to provide water to the Delta, "the burden....falls on  
5 the Projects, not the smelt." (Doc. 246 at 10.)

6 The EWA is simply a means by which the SWP and CVP can  
7 obtain water by purchasing it from willing sellers. (AR 373.)  
8 EWA water may be used either to protect fish or to compensate  
9 project water users for reduced exports at the project pumps.  
10 (*Id.*) If money is unavailable to fund the EWA, Defendants are  
11 nonetheless required to prevent smelt take from exceeding  
12 permissible take limits.

13 The BiOp sets forth a three-tier process to supply water to  
14 protect the smelt:

15 • Tier 1 (Regulatory Baseline). Tier 1 is baseline  
16 water and consists of currently existing BOs, water  
17 right decisions and orders, CVPIA Section 3406(b) (2)  
18 water, and other regulatory actions affecting  
19 operations of the CVP and SWP. Also included in Tier 1  
20 are other environmental statutory requirements such as  
21 Level 2 refuge water supplies.

22 • Tier 2 (EWA). Tier 2 is the EWA and provides fish  
23 protection actions supplemental to the baseline level  
24 of protection (Tier 1). Tier 2 consists of EWA assets,  
25 which combined with the benefits of CALFED's ERP, will  
26 allow water to be provided for fish actions when needed  
27 without reducing deliveries to water users. EWA assets  
28 will include purchased (fixed) assets, operational  
(variable) assets, and other water management tools and  
agreements to provide for specified level of fish  
protection. Fixed assets are those water supplies that  
are purchased by the EWA Agencies. These purchased  
quantities are approximations and subject to some  
variability. Operational assets are those water  
supplies made available through CVP and SWP operational  
flexibility. Some examples include the flexing of the  
export-to-inflow ratio standard required [] for meeting  
Delta water quality and flows, and ERP water resulting  
from upstream releases pumped at the SWP Banks Pumping  
Plant. Water management tools provide the ability to

1 convey, store, and manage water that has been secured  
2 through other means. Examples include dedicated pumping  
3 capacity, borrowing, banking, and entering into  
4 exchange agreements with water contractors. Chapter 8  
of this BA contains a more detailed description of EWA  
operations, as characterized in the CALSIM II modeling  
for the CVP OCAP.

5 • Tier 3 (Additional Assets). In the event the EWA  
6 Agencies deem Tiers 1 and 2 levels of protection  
insufficient to protect at-risk fish species in  
7 accordance with the Act, Tier 3 would be initiated.  
Tier 3 sets in motion a process based upon the  
8 commitment and ability of the EWA Agencies to make  
additional water available, should it be needed. This  
9 Tier may consist of additional purchased or operational  
10 assets, funding to secure additional assets if needed,  
11 or project water if funding or assets are unavailable.  
It is unlikely that protection beyond those described  
in Tiers 1 and 2 will be needed to meet requirements of  
the Act.

12 (*Id.* at 336-37.) DWR emphasizes that, if all else fails, Tier 3  
13 assets may be brought to bear, which include "additional  
14 purchased or operational assets, funding to secure additional  
15 assets if needed, or project water if funding or assets are  
16 unavailable." (*Id.* (emphasis added).)

17 There is a difference between the DSRAM's failure to require  
18 mitigation actions in response to trigger events, designed to  
19 assure the commitment of necessary resources to smelt protection,  
20 and the duty to have available or acquire those necessary  
21 resources. A court must leave to the agency the application of  
22 its expertise and authority to manage the complex hydrologic,  
23 legal, financial, physical, and logistical aspects of protecting  
24 the delta smelt. Plaintiffs motion for summary adjudication is  
25 **DENIED** as to the issue of the insufficiency of the EWA, VAMP, and  
26 CVPIA(b) (2) programs.

27 **C. Best Available Science.**

28 The § 7 formal consultation process is designed to "insure"

1 that any agency action "is not likely to jeopardize the continued  
2 existence of any endangered species or threatened species or  
3 result in the destruction or adverse modification of habitat of  
4 such species which is determined...to be critical...." 16 U.S.C.  
5 § 1536(a)(2). "In fulfilling the requirements of this paragraph  
6 each agency shall use the best scientific and commercial data  
7 available." *Id.*

8 An agency has wide discretion to determine what is "the best  
9 scientific and commercial data available." *San Luis v. Badgley*,  
10 136 F. Supp. 2d 1136, 1151 (E.D. Cal. 2000). Yet, an agency must  
11 make its decision about jeopardy based on the best science  
12 available at the time of the decision, and may not defer that  
13 jeopardy analysis by promising future studies to assess whether  
14 jeopardy is occurring. *Rumsfeld*, 198 F. Supp. 2d at 1156. While  
15 uncertainty is not necessarily fatal to an agency decision, e.g.,  
16 *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1337 (9th Cir.  
17 1992) ("*Greenpeace I*") (upholding agency decision even though there  
18 was uncertainty about the effectiveness of management measures  
19 because agency premised its decision on a reasonable evaluation  
20 of all available data), an agency may not entirely fail to  
21 develop appropriate projections where data "was available but  
22 [was] simply not analyzed," *Greenpeace v. NMFS*, 80 F. Supp. 2d  
23 1137, 1149-50 (W.D. Wash. 2000) ("*Greenpeace II*") (where agency  
24 totally failed to develop any projections regarding population  
25 viability, it could not use as an excuse the fact that relevant  
26 data had not been analyzed). Here, EWS maintains the necessary  
27 data cannot be obtained.

1                   **1. Does a "Benefit of the Doubt to the Species"**  
2                   **Presumption Apply?**

3                   The parties debate at length whether the best available  
4 scientific information principle includes a requirement that the  
5 agency "give the benefit of the doubt to the species." This  
6 language has its origins in the legislative history of the ESA,  
7 H.R. Conf. Rep. No. 96-697, 96th Cong., 1st Sess. 12, reprinted  
8 in 1979 U.S.C.C.A.N. 2572, 2576:

9                   Section 7(b) of the act requires the fish and wildlife  
10 service and the national marine fisheries service to  
11 render biological opinions which advise whether or not  
12 proposed agency actions would violate section 7(a)(2).  
13 Courts have given substantial weight to these  
14 biological opinions as evidence of an agency's  
15 compliance with section 7(a). The amendment would not  
16 alter this state of the law or lessen in any way an  
17 agency's obligation under section 7(a)(2).

18                   As currently written, however, the law could be  
19 interpreted to force the fish and wildlife service and  
20 the national marine fisheries service to issue negative  
21 biological opinions whenever the action agency cannot  
22 guarantee with certainty that the agency action will  
23 not jeopardize the continued existence of the listed  
24 species or adversely modify its critical habitat. The  
25 amendment will permit the wildlife agencies to frame  
26 their section 7(b) opinions on the best evidence that  
27 is available or can be developed during consultation.  
28 If the biological opinion is rendered on the basis of  
inadequate information then the federal agency has a  
continuing obligation to make a reasonable effort to  
develop that information.

This language continues to give the benefit of the  
doubt to the species, and it would continue to place  
the burden on the action agency to demonstrate to the  
consulting agency that its action will not violate  
section 7(a)(2). Furthermore, the language will not  
absolve federal agencies from the responsibility of  
cooperating with the wildlife agencies in developing  
adequate information upon which to base a biological  
opinion. If a federal agency proceeds with the action  
in the face of inadequate knowledge or information, the  
agency does so with the risk that it has not satisfied  
the standard of section 7(a)(2) and that new  
information might reveal that the agency has not  
satisfied the standard of section 7(a)(2).

1 (emphasis added).

2 In *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988),  
3 the Ninth Circuit applied this "benefit of the doubt" language to  
4 hold that FWS violated the ESA by "failing to use the best  
5 information available to prepare comprehensive biological  
6 opinions considering all stages of the agency action...." At  
7 dispute in *Conner* was a biological opinion reviewing the proposed  
8 sale of oil and gas leases on National Forest land. The  
9 biological opinion analyzed the impact of the "initial lease  
10 phase," but failed to address the potential impact of post  
11 leasing activities, such as oil and gas development. FWS  
12 reasoned that there was "insufficient information available to  
13 render a comprehensive biological opinion beyond the initial  
14 lease phase," relying instead on "incremental-step consultation."  
15 *Id.* at 1452. The Ninth Circuit recognized that "the precise  
16 location and extent of future oil and gas activities were unknown  
17 at the time," but, "extensive information about the behavior and  
18 habitat of the species in the areas covered by the leases was  
19 available." *Id.* at 1453. With this information, "FWS could have  
20 determined whether post-leasing activities in particular areas  
21 were fundamentally incompatible with the continued existence of  
22 the species." *Id.* at 1454.

23 In light of the ESA requirement that the agencies use  
24 the best scientific and commercial data available to  
25 insure that protected species are not jeopardized, 16  
26 U.S.C. § 1536(a)(2), the FWS cannot ignore available  
27 biological information or fail to develop projections  
28 of oil and gas activities which may indicate potential  
conflicts between development and the preservation of  
protected species. We hold that the FWS violated the  
ESA by failing to use the best information available to  
prepare comprehensive biological opinions considering  
all stages of the agency action, and thus failing to

1 adequately assess whether the agency action was likely  
2 to jeopardize the continued existence of any threatened  
3 or endangered species, as required by section 7(a)(2).  
4 To hold otherwise would eviscerate Congress' intent to  
5 "give the benefit of the doubt to the species."

6 *Id.* (emphasis added). *Conner* does not directly support the  
7 broader interpretation urged by Plaintiffs, that the agency  
8 should err on the side of the species when evaluating uncertain  
9 evidence. *Conner* stands for the proposition that an agency  
10 cannot abdicate its responsibility to evaluate the impacts of an  
11 action on a species by labeling available information  
12 "uncertain," because doing so violates Congress' intent that the  
13 agencies "give the benefit of the doubt to the species."

14 *Center for Biological Diversity v. Lohn*, 296 F. Supp. 2d  
15 1223, 1239 (W.D. Wash. 2003) (rev'd on other grounds, --- F.3d ---  
16 , 2007 WL 1217738 (9th Cir.)), applied the *Conner* holding in  
17 conformity with Plaintiffs' interpretation. *Lohn* addressed the  
18 listing under the ESA of a population of orca whales. Despite  
19 considerable record evidence suggesting the Orca whales should be  
20 considered a separate species, the Orca population had not yet  
21 been identified as a separate taxon. NMFS decided not to list  
22 the species based on the scientific uncertainty that existed in  
23 the field of taxonomy, relying on the fact that the new taxon had  
24 not yet been designated. The district court ruled this decision  
25 was arbitrary and capricious:

26 Given the considerable morphological, behavioral, and  
27 genetic evidence that the global *Orcinus orca* taxon is  
28 inaccurate and that residents and transients do not  
belong to the same taxon, the decision not to list the  
Southern Residents cannot be based upon a lack of  
consensus in the field of taxonomy regarding the  
precise, formal taxonomic redefinition of killer  
whales, particularly when that lack of agreement is  
compounded by the extreme difficulty in gathering

1 evidence to achieve consensus. The best available  
2 science standard gives "the benefit of the doubt to the  
3 species." Conner v. Burford, 848 F.2d 1441, 1454 (9th  
4 Cir.1988) (observing one of the purposes of the best  
5 available science standard in review of whether agency  
6 action may result in destruction or adverse  
7 modification of listed species' habitat pursuant to 16  
8 U.S.C. § 1536(a)(2)). To deny listing of a species  
9 simply because one scientific field has not caught up  
10 with the knowledge in other fields does not give the  
11 benefit of the doubt to the species and fails to meet  
12 the best available science requirement.

13 *Id.* at 1239 (emphasis added).<sup>22</sup>

14 In response, Defendant Intervenors cite *Oceana, Inc. v.*

15 \_\_\_\_\_  
16 <sup>22</sup> Plaintiffs cite another district court decision that  
17 applied the benefit of the doubt language: "To the extent that  
18 there is any uncertainty as to what constitutes the best  
19 scientific information, Congress intended for the agency to 'give  
20 the benefit of the doubt to the species.'" *Ctr. for Biological*  
21 *Diversity v. Bureau of Land Mgmt.*, 422 F. Supp. 2d 1115, 1127  
22 (N.D. Cal. 2006) (citing *Conner*, 848 F.2d at 1454). However, that  
23 district court did not apply the "benefit of the doubt" concept  
24 in its analysis in any way, let alone as a presumption governing  
25 the agency's analysis of scientific information.

26 Another case Plaintiffs cite, *Rock Creek Alliance v. U.S.*  
27 *Fish & Wildlife Service*, 390 F. Supp. 2d 993, 1003 (D. Mont.  
28 2005), does not support imposing a "benefit of the doubt"  
presumption to uncertain scientific evidence:

Though the agency has discretion to make decisions  
based in its expertise, the ESA expresses a legislative  
mandate "to require agencies to afford first priority  
to the declared national policy of saving endangered  
species.... Congress has spoken in the plainest of  
words, making it abundantly clear that the balance has  
been struck in favor of affording endangered species  
the highest of priorities, thereby adopting a policy  
which it described as 'institutionalized caution.'"

*Id.* (quoting *Tennessee Valley Authority v. Hill*, 437 U.S. 153,  
185 (1978)). However, as in *Center for Biological Diversity*,  
this language was part of a general discussion of the legal  
framework; the *Rock Creek* court never applied a benefit of the  
doubt presumption in the manner Plaintiffs suggest it should be  
applied here.

1 *Evans*, 384 F. Supp. 2d 203 (D.D.C. 2003), a challenge to NMFS's  
2 choice between two estimates of how much take a particular type  
3 of fishing gear would cause. The agency chose the lower  
4 estimate, reasoning that it was the "best estimate possible."  
5 The plaintiff argued that this estimate failed to give the  
6 "benefit of the doubt" to the species. *Id.* at 228. Although the  
7 lower estimate was uncertain, the district court reasoned that  
8 "the ESA does not require the agency to reject the 'best estimate  
9 possible' in favor of a more 'conservative' estimate that,  
10 according to the scientists, would be lacking in support." *Id.*

11 *Lohn* and *Oceana* appear irreconcilable, but, they can be  
12 harmonized. *Lohn* rejected an agency's decision to follow the  
13 taxonomy in the face of significant and compelling scientific  
14 evidence favoring a different conclusion. To side with the  
15 agency under such circumstances would "not give the benefit of  
16 the doubt to the species...." *Id.* at 1239. In contrast, *Oceana*,  
17 concerned an agency's choice of the "best estimate possible" over  
18 a more "conservative" estimate that lacked scientific support.  
19 The *Oceana* court refused to ignore the general rule that an  
20 agency must choose the best available science, simply because the  
21 ESA commands that the agency give the "benefit of the doubt" to  
22 the species. Both cases stand for the proposition that the  
23 agency must carefully examine the available scientific data and  
24 models and rationally choose the most reliable.

## 25 **2. The BiOp's Failure to Address the 2004 Fall** 26 **Midwater Trawl Data.**

27 Plaintiffs assert that "one of the most egregious errors in  
28 the [BiOp] is its failure to consider available fall 2004 Delta

1 smelt abundance data, which evoked grave concern among agencies  
2 involved in smelt management."<sup>23</sup> (Doc. 232 at 5.) On February  
3 9, 2005, FWS and other CALFED members met to discuss Delta smelt  
4 abundance. Among other things, participants discussed data from  
5 the 2004 fall midwater trawl ("FMWT") survey, which revealed that  
6 "estimates of Delta smelt appear to be their lowest since 1964."  
7 (Doc. 11 at 5; AR 9199-9200, 9202; Doc. 12.) The February 16,  
8 2005, BiOp, contained no mention of the 2004 FMWT data.

9 Plaintiffs assert that FWS acted arbitrarily, capriciously  
10 and unlawfully by "ignoring" the 2004 FMWT data and relying  
11 instead on the more favorable abundance data from earlier  
12 abundance surveys. (AR 366-67 (noting that the 2003 FMWT results  
13 were more favorable than those from 2002, while simultaneously  
14 acknowledging that the 2003 summer townet index (1.6) was "well  
15 below the pre-decline average of 20.4 in (1959).") .) Despite the  
16 receipt of the new, even less favorable 2004 FMWT data, FWS made  
17 no substantive changes to its jeopardy analysis in the biological  
18 opinion and did not use or address the new data in any way, not  
19 even to explain why the data was not discussed. At oral  
20 argument, the agency maintained that ESA analysis cannot go on  
21 forever, that there must be a cutoff.

22 Plaintiffs note that the low population numbers revealed by  
23 the FMWT data were "not unexpected," as smelt abundance had been  
24 on a downward trend for at least two years prior. (AR 370-71;  
25

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26 <sup>23</sup> Defendants and Defendant-Intervenors dispute whether  
27 the data "evoked grave concern." The degree of concern is  
28 irrelevant to the inquiry, as it is undisputed that the 2004 FMWT  
data showed the lowest smelt abundance on record.

1 9199-9200, 9202.) One prominent smelt biologist warned at a June  
2 2003 OCAP symposium that managers should expect very low smelt  
3 abundance data in the near future and that water exports were a  
4 key factor in the population decline, noting that the "cumulative  
5 proportion of the population lost to exports relative to  
6 abundance" could be as high as 30 percent. (AR 5069.)

7 Federal Defendants suggest that Plaintiffs' entire argument  
8 should be rejected as internally inconsistent. (Doc. 242 at 26-  
9 27.) Plaintiffs contend that FWS should have revised the BiOp in  
10 light of the 2004 FMWT data and that additional evidence of a  
11 downward trend was "not unexpected." These contentions are  
12 consistent with the central premise of Plaintiffs' position --  
13 that the 2004 FMWT data reflected a record low abundance (the  
14 data showed "estimates of Delta smelt appear to be at their  
15 lowest since 1964" (Doc. 11 at 5)); so low that the data should  
16 have been addressed in the BiOp, even if the agency already knew  
17 that smelt abundance was trending downward.

18 The State Water Contractors suggest that Plaintiffs'  
19 acknowledgment that the downward trend was "not unexpected,"  
20 establishes that the BiOp fully recognizes the dire situation of  
21 the smelt. (Doc. 241 at 4.) The BiOp reflects that FWS had  
22 knowledge that smelt population levels were at extremely low  
23 levels, "[s]ince 1983, the delta smelt population has exhibited  
24 more low FMWT abundance indices, for more consecutive years, than  
25 previously recorded." (AR 367.)

26 The results of seven surveys conducted by the  
27 Interagency Ecological Program (IEP) corroborate the  
28 dramatic decline in delta smelt....According to seven  
abundance indices designed to record trends in the  
status of the delta smelt, this species was

1 consistently at low population levels during the last  
2 ten years (Stevens et al. 1990). These same indices  
3 also show a pronounced decline from historical levels  
4 of abundance (Stevens et al. 1990).

5 (AR at 370.) The State Water Contractors' argument ignores that  
6 the 2004 FMWT data evidences record low (the lowest) smelt  
7 abundance. Plaintiffs maintain that FWS' acknowledgment of a  
8 downward trend is inadequate as it does not address or analyze in  
9 survival and recovery terms, that smelt abundance levels had  
10 reached the lowest ever recorded.

11 The State Water Contractors argue that, although the BiOp  
12 admits the fact of the smelt's declining population, it does not  
13 and cannot explain the cause of the decline, because there is no  
14 scientific consensus as to causation. (Doc. 241 at 5.)  
15 "Contributing to [this] uncertainty," "is the fact that SWP and  
16 CVP operations have been ongoing for decades - a period during  
17 which Delta smelt abundance has increased as well as declined."  
18 (*Id.* at 6.) The State Water Contractors assert that the DSRAM  
19 was adopted in part to protect the smelt while further monitoring  
20 and research is carried out to resolve these uncertainties. They  
21 conclude that even if the 2004 FMWT data had been addressed in  
22 the BiOp, the ultimate opinion reached would not have differed;  
23 i.e., that operation of the projects under the 2004 OCAP BiOp  
24 would not jeopardize the smelt because, among other things, take  
25 will remain at or below historic levels and the DSRAM will  
26 protect smelt from salvage at project facilities.<sup>24</sup> But, this is

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27 <sup>24</sup> The State Water Contractors maintain that CVP/SWP  
28 operations have been on-going for decades, during which time  
Delta smelt abundance has fluctuated greatly.

1 post hoc argument; neither the agency or the biological opinion  
2 addressed the 2004 FMWT data and available scientific information  
3 opined that Project operations contributed to the decline of the  
4 smelt.

5         The cases the parties cite do not answer whether FWS did not  
6 have to analyze most recent data because it would not have  
7 altered the ultimate conclusion. Some cases suggest that FWS  
8 must use all available information to ensure that a biological  
9 opinion analyzes the threats to a species in a comprehensive  
10 manner. Plaintiffs refer to *Greenpeace II*, 80 F. Supp. 2d at  
11 1149-50, for the proposition that failure to analyze and  
12 incorporate available data is fatal to a biological opinion. In  
13 that case, NMFS concluded in a biological opinion that the total  
14 groundfish catch authorized in the Bering Sea and Gulf of Alaska  
15 in a single fishing season (1999) would not jeopardize the  
16 endangered Stellar sea lion. NMFS limited the scope of the  
17 biological opinion to that single year of fisheries management  
18 activities. The district court ruled that the agency should have  
19 broadened the scope of the biological opinion to consider the  
20 overall fishery management regime, including relevant regulations  
21 and specifications. *Id.* at 1146-47. This failure to produce a  
22 comprehensive biological opinion permeated all other aspects of  
23 the agency's decision. The district court found fault with the  
24 BiOp's superficial analysis, emphasizing the agency's failure to  
25 address the overall effects of the fisheries upon the sea lion:

26             As far as the Court can ascertain, the focus of BiOp2  
27 is limited to analyzing whether the fisheries compete  
28 with the sea lion for prey. In particular, BiOp2  
focuses on the potential for localized depletions of  
prey caused by the fisheries. BiOp2 at 90, 112. Even

1 with respect to this limited topic of discussion,  
2 meaningful analysis is virtually non-existent. NMFS  
3 itself repeatedly concludes in BiOp2 that it simply  
4 lacks the information to make any determination one way  
5 or the other. See BiOp2 at 111-118. Thus, NMFS's  
6 analysis is admittedly incomplete and its conclusions  
7 inconclusive. Although inconclusive data does not  
8 necessarily render a particular scientific conclusion  
9 invalid, the limited scope and quality of analysis that  
10 is contained in BiOp2 serves to highlight its overall  
11 inadequacy. For example, NMFS relies substantially on  
12 its conclusion that many of the target groundfish  
13 species are not important sea lion prey, despite  
14 uncertain evidence. BiOp2 at 114. That many of the  
15 target species may not individually constitute a major  
16 prey source, however, does not mean the cumulative  
17 impact of these fisheries is insignificant. In other  
18 words, limited analysis which suggests the fisheries do  
19 not jeopardize the sea lion does not obviate the  
20 requirement that NMFS address the full scope of the  
21 FMPs in order to ascertain their overall effects.

22 In sum, BiOp2 is limited in scope, heavy on general  
23 background information, and deficient in focused and  
24 meaningful discussion and analysis of how these large  
25 fisheries, and the complex management measures which  
26 regulate them, affect endangered Steller sea lions.  
27 That NMFS now finds it necessary to undertake yet  
28 another "comprehensive consultation" is a final  
29 indication to this Court that BiOp2 is not the broad  
30 and in-depth consultation it was purported to be by  
31 NMFS, much less coextensive in scope with the FMPs as  
32 required under the ESA.

33 A biological opinion which is not coextensive in scope  
34 with the identified agency action necessarily fails to  
35 consider important aspects of the problem and is,  
36 therefore, arbitrary and capricious. Here, BiOp2 not  
37 only fails to consider important aspects of the  
38 problem, the analysis it does contain is simply not  
39 adequate. Although an agency need not rely on  
40 conclusive scientific proof in a biological opinion,  
41 its conclusions must be based on "the best scientific  
42 and commercial data available." 16 U.S.C. § 1536(a)(2).  
43 Thus, an agency "cannot ignore available biological  
44 information or fail to develop projections" which may  
45 indicate potential conflicts between the proposed  
46 action and the preservation of endangered species.  
47 Conner, 848 F.2d at 1454.

48 *Id.* at 1149-50 (emphasis added).

49 In *Greenpeace II*, NMFS admitted that the information it  
50 needed to perform a more comprehensive review was available, but

1 argued that it "could not have been analyzed in the time  
2 allowed." *Id.* at 1150. The district court rejected this  
3 argument:

4 A federal agency...is not "excused from [fulfilling the  
5 dictates of the ESA] if, in its judgment, there is  
6 insufficient information available to complete a  
7 comprehensive opinion and it takes upon itself [a more  
8 limited analysis]." *Conner*, 848 F.2d at 1455. This is  
9 not a situation where NMFS fully addressed the problem  
based on uncertain scientific data. *See Greenpeace  
Action v. Franklin*, 14 F.3d 1324, 1337 (9th Cir.1992).  
Rather, NMFS entirely ignored relevant factors and  
admittedly failed to analyze and develop projections  
based on information that was available.

10 *Id.* at 1150 (emphasis added); *see also Conner*, 848 F.2d at 1454  
11 (biological opinion invalidated because agency failed to "use  
12 best information available to prepare comprehensive biological  
13 opinions considering all stages of agency action").

14 Plaintiffs analogize this case to *Greenpeace II*, because the  
15 agency has ignored available biological information. Here,  
16 Plaintiffs complain that FWS failed to incorporate into existing  
17 models and analyses that already reflected concern over an  
18 overall declining trend in smelt, the most recent survey  
19 information, evidencing a more pronounced decline in smelt  
20 populations than ever before recorded. In *Greenpeace II*, the  
21 agency entirely failed to perform a comprehensive review of  
22 threats to the sea lion. The difference in degree is not  
23 significant.

24 Federal Defendants cite *Oceana*, 384 F. Supp. 2d 203, where  
25 NMFS concluded that an amendment to the Atlantic Sea Scallop  
26 Fishery Management Plan would not jeopardize the protected  
27 loggerhead sea turtle, based on a population model that involved  
28 a degree of uncertainty, but that the agency determined was the

1 "most reliable method." *Id.* at 215. The *Oceana* plaintiffs did  
2 not dispute that the model represented the "best available  
3 science," instead arguing that the model was "so ill-suited to  
4 the purpose for which it was used, and so fraught with  
5 uncertainties," that the agency could not rationally reach its no  
6 jeopardy conclusion. *Id.* at 218. The district court upheld the  
7 agency's use of the model, reasoning "[t]ime and again courts  
8 have upheld agency action based on the 'best available' science,  
9 recognizing that some degree of speculation and uncertainty is  
10 inherent in agency decisionmaking, even in the precautionary  
11 context of the ESA." *Id.* at 219. Though the ESA should not be  
12 implemented "haphazardly, on the basis of speculation, *id.* at  
13 219, the model "bears a rational relationship to the reality it  
14 purports to represent" and no other alternative model was  
15 available, *id.* at 221.

16 The circumstances here are not analogous to those in *Oceana*,  
17 where the plaintiffs admitted that the challenged model was the  
18 best, albeit uncertain, available science. Here, Plaintiffs  
19 maintain the agency's failure to analyze the most recent smelt  
20 population information prevented consideration of the best  
21 available, consequential scientific information.

22 Federal Defendants also rely on *Greenpeace I*, 14 F.3d at  
23 1337, an earlier challenge to a Stellar sea lion biological  
24 opinion. The *Greenpeace I* plaintiffs argued that the agency  
25 acted arbitrarily and capriciously by approving certain fishery  
26 management measures despite uncertainty about the effects of the  
27 measures on the sea lion. The Ninth Circuit concluded that the  
28 presence of some uncertainty did not violate the best available

1 science requirement in part because that BiOp analyzed all the  
2 available data:

3 We hold that the Service has fulfilled its substantive  
4 duties as well. Despite Greenpeace's assertions to the  
5 contrary, the Service supported its conclusions with  
6 ample data and analysis. The June biological opinion  
7 indicates that the Service, the Alaska Fisheries  
8 Science Center, and the National Marine Mammal  
9 Laboratory "analyzed all the available data on the  
10 pollock fishery and Steller sea lions" in the Gulf of  
11 Alaska. The Service also sought the recommendations of  
12 the Steller Sea Lion Recovery Team. The opinion  
13 demonstrates that the Service evaluated the spatial and  
14 temporal distribution of commercial fishing across the  
15 Gulf of Alaska. It then addressed not only the total  
16 biomass of pollock in the Gulf and the effects of  
17 fishery removals on that biomass, but also the spatial  
18 and temporal distribution of pollock across the Gulf.  
19 And despite Greenpeace's claims to the contrary, the  
20 Service did not ignore hydroacoustic surveys of pollock  
21 biomass, but considered and compared them to bottom  
22 trawl surveys. Finally, while the Service has  
23 repeatedly conceded that it was uncertain about the  
24 effectiveness of its management measures, it premised  
25 these measures on a reasonable evaluation of available  
26 data, not on pure speculation.

27 The biological opinions indicate that the Service, an  
28 expert agency, consulted with other teams of experts to  
consider all relevant factors pertaining to the effects  
of the Gulf fishery on the Steller sea lion. And they  
indicate that the Service did not ignore data, as  
Greenpeace suggests. The Service's decision to go ahead  
with the 1991 fishery under the proposed restrictions,  
despite some uncertainty about the effects of  
commercial pollock fishing on the Steller sea lion, was  
not a clear error of judgment.

(Emphasis added.) *Id.* at 1337. Here, unlike *Greenpeace I*, FWS  
failed to analyze all of the available data on the Delta smelt,  
as the 2004 FMWT data is not mentioned in the BiOp. Nor has FWS  
resolved uncertainties about the identified causes of the serious  
decline in Delta smelt abundance by adopting unenforceable  
management measures.

"Although a decision of less than ideal clarity may be  
upheld if the agency's path may reasonably be discerned, [a

1 court] cannot infer an agency's reasoning from mere silence.  
2 Rather, an agency's action must be upheld, if at all, on the  
3 basis articulated by the agency itself." *Pacific Coast Fed'n of*  
4 *Fishermen's Ass'ns v. United States Bureau of Reclamation*, 426  
5 F.3d 1082, 1091 (9th Cir. 2005) (internal citations and quotations  
6 omitted). "[W]hen reviewing a biological opinion, [a court may]  
7 rely only 'on what the agency actually said'...." *Id.* (quoting  
8 *Gifford Pinchot Task Force*, 378 F.3d at 1072 & n. 9). Had FWS  
9 examined the FMWT 2004 data in the BiOp, the weight it gave to  
10 that data would have been entitled to deference. The agency's  
11 silence cannot be afforded deference.

12 **a. The timing of the 2004 FMWT Data relative to**  
13 **the issuance of the BiOp.**

14 Federal Defendants complain the timing of the release of the  
15 2004 FMWT data did not leave enough time to address the data  
16 before issuance of the biological opinion. The record shows at  
17 the very latest, the 2004 FMWT data was presented to FWS and  
18 other CALFED members on February 9, 2005, less than a week before  
19 the February 16, 2005, issuance of the biological opinion.  
20 Federal Defendants assert they were not required to rewrite the  
21 BiOp at the "eleventh hour." (Doc. 242 at 27).

22 Although the record shows the 2004 FMWT data was presented  
23 at the February 9, 2005 CALFED meeting, it is unclear when FWS  
24 first saw this data. Plaintiffs' claim that the data was  
25 available in December 2004, is not supported.<sup>25</sup> However, even  
26 assuming FWS was not aware of the 2004 FMWT data until February

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27 <sup>25</sup> Plaintiffs' record citations, AR 9199--9202, are print-  
28 outs of the FMWT data which post date the issuance of the BiOp.

1 9, 2005, the agency was not operating under a deadline. As in  
2 *Greenpeace II*, where the agency's statutory duty was not excused  
3 because the data could not be "analyzed in the time allowed," 80  
4 F. Supp. 2d at 1150, here, FWS could have delayed releasing the  
5 biological opinion until it had reviewed and analyzed the new  
6 abundance data, which was especially significant as it showed  
7 Delta smelt abundance at its nadir.

8 Defendants and Defendant-Intervenors rejoin that the failure  
9 of the BiOp to directly address the 2004 FMWT is harmless,  
10 because one of the DSRAM's trigger criteria is an index based  
11 upon the previous years' FMWT results, calling for any new  
12 abundance data to be incorporated into the adaptive management  
13 process. However, even if the data were considered later in the  
14 DSRAM process, no designated protective actions are required to  
15 be taken in response to any of the triggering criteria.<sup>26</sup>

16 Federal Defendants raise a legitimate concern about having  
17 to prolong completion of the BiOp on the eve of its release. In  
18 theory, new scientific information could arrive on FWS's doorstep  
19 on a daily basis. If FWS was required to consider and address  
20 every new piece of information it received prior to publication  
21 of its decision, it would be effectively impossible for the  
22

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23 <sup>26</sup> Abundance data is relevant to aspects of the BiOp that  
24 are independent of the DSRAM process. For example, the agency's  
25 conclusion that the level of anticipated take "is not likely to  
26 result in jeopardy to the smelt because this level of take is at  
27 or below historical levels of take" (AR 474), is irrational  
28 because no consideration is given to the current decline in smelt  
abundance nor any explanation provided how the further decline of  
the smelt does not exacerbate jeopardy to the species' survival  
and recovery.

1 agency to complete a biological opinion. But, this is not such a  
2 case. The FMWT is a credible and reliable Delta smelt population  
3 abundance survey, regularly compiled on an annual basis, and  
4 relied upon by the agency in the past. There is no rational  
5 reason to ignore such important data. The BiOp places great  
6 weight on the FMWT as "the second longest running survey." (AR  
7 366, 370). The agency does not suggest the time of receipt of  
8 the 2004 FMWT data was unexpected. The agency's failure to  
9 acknowledge and analyze the record low abundance levels revealed  
10 by the 2004 FMWT is unreasonable and violated its duty to use the  
11 best available scientific information. 16 U.S.C. § 1536(a)(2).

12 Plaintiffs' motion for summary adjudication is **GRANTED** as to  
13 this claim.

### 14 **3. Global Climate Change Evidence.**

15 Plaintiffs next argue that the BiOp ignored data about  
16 Global Climate Change that will adversely affect the Delta smelt  
17 and its habitat. (Doc. 232 at 7.) This is potentially  
18 significant because the BiOp's conclusions are based in part on  
19 the assumption that the hydrology of the water bodies affected by  
20 the OCAP will follow historical patterns for the next 20 years.  
21 (AR 375 (explaining that CALSIM II modeling involved making  
22 "adjustments to historic water supplies...by imposing future  
23 level land use on historical meteorological and hydrologic  
24 conditions").)

25 In a July 28, 2004 comment letter, Plaintiff NRDC directed  
26 FWS's attention to several studies on the potential effects of  
27 climate change on water supply reliability, urging that the issue  
28 be considered in the BiOp. (AR 8552-56.) The comment letter

1 stated:

2 The best scientific data available today establishes  
3 that global climate change is occurring and will affect  
4 western hydrology. At least half a dozen models  
5 predict warming in the western United States of several  
6 degrees Celsius over the next 100 years (Redmond,  
7 2003). Such sophisticated regional climate models must  
8 be considered as part of the FWS' consideration of the  
9 best available scientific data.

10 Unfortunately, the Biological Assessment provided by  
11 the Bureau to FWS entirely ignores global climate  
12 change and existing climate change models. Instead,  
13 the BA projects future project impacts in explicit  
14 reliance on seventy-two years of historical records.  
15 In effect, the Biological Assessment assumes that  
16 neither climate nor hydrology will change. This  
17 assumption is not supportable.

18 In California, a significant percentage of annual  
19 precipitation falls as snow in the high Sierra Nevada  
20 mountains. Snowpack acts as a form of water storage by  
21 melting to release water later in the spring and early  
22 summer months (Minton, 2001). The effects of global  
23 climate change are expected to have a profound effect  
24 on this dynamic. Among other things, more  
25 precipitation will occur as rain rather than snow, less  
26 water will be released slowly from snowpack "storage"  
27 during spring and summer months, and flooding is  
28 expected to increase (Wilkinson, 2002; Dettinger,  
2003). These developments will make it more difficult  
to fill the large reservoirs in most years, reducing  
reservoir yields and will magnify the effect of CVP  
operations on downstream fishes (Roos, 2001). These  
developments will also dramatically increase the cost  
of surface storage relative to other water supply  
options, such as conservation.

While the precise magnitude of these changes remains  
uncertain, judgments about the likely range of impacts  
can and have been made. See e.g., U.S. Global Climate  
Action Report - 2002; Third National Communication of  
the United States Under the United Nations Framework  
Convention on Climate Change at 82, 101 (2002). [FN3].  
The Service can and must evaluate how that range of  
likely impacts would affect CVP operations and impacts,  
including the Bureau's ability to provide water to  
contractors while complying with environmental  
standards. We therefore request that the Service  
review and consider the work cited above, as well as  
the background and Dettinger presentation at a recent  
climate change conference held in Sacramento, June 9-  
11, 2004 [citation omitted] and climate change reports  
[citation omitted].

1 (AR at 8554-55 (emphasis added).)

2 \_\_\_\_\_ A second presentation by Michael Dettinger at a December 8-  
3 9, 2004 CALFED meeting, attended by FWS staff, concluded that  
4 "warming is already underway..."; that this would result in  
5 earlier flows, more floods, and drier summers; and that  
6 "California water supplies/ecosystems are likely to experience []  
7 changes earliest and most intensely." (Doc. 10 at 18.)  
8 Following Dettinger's presentation, members of CALFED noted "the  
9 need to reevaluate water storage policies and ERP [Ecosystem  
10 Recovery Program] recovery strategies, all of which would be  
11 affected by projected climate changes." (Doc. 9 at 3.) The  
12 record reflects that extreme water temperatures can have dramatic  
13 impacts upon smelt abundance. (AR 8979-80.)

14 In addition to the specific studies and data cited by NRDC,  
15 FWS scientists recognized the issue of climate change warranted  
16 further consideration. At a June 2003 symposium entitled  
17 "Framing the issues for Environmental and Ecological Effects of  
18 Proposed Changes in Water Operations: Science Symposium on the  
19 State of Knowledge," a number of questions regarding climate  
20 change were raised, including: "How does the proposed operations  
21 plan account for the potential effects of climate change (e.g.,  
22 El Nino or La Nina, long term changes in precipitation and runoff  
23 patterns, or increases in water temperature)?" (AR at 4839.)

24 Plaintiffs argue that, despite this evidence that climate  
25 change could seriously impact the smelt by changing Delta  
26 hydrology and temperature, the BiOp "did not so much as mention  
27 the probable effects of climate change on the delta smelt, its  
28 habitat, or the magnitude of impacts that could be expected from

1 the 2004 OCAP operations, much less analyze those effects.”

2 (Doc. 232 at 8.) Defendants and Defendant-Intervenors respond by  
3 arguing (1) that the evidence before FWS at the time the BiOp was  
4 issued was inconclusive about the impacts of climate change; and  
5 (2) that, far from ignoring climate change, the issue is built  
6 into the BiOp’s analysis through the use of X2 as a proxy for the  
7 location and distribution of Delta smelt.

8 **a. Inconclusive Nature of Available Information**  
9 **Regarding the Impacts of Global Climate**  
10 **Change on Precipitation.**

11 Federal Defendants and the State Water Contractors  
12 characterize Mr. Dettinger’s presentation, as reflecting “a great  
13 deal of uncertainty that climate change will impact future  
14 precipitation.” The presentation is entitled “Climate Change  
15 Uncertainties and CALFED Planning.” (Doc. 10 at 1.) Dettinger  
16 acknowledges that, although current climate models “yield  
17 consistent warming scenarios for California” (*id.* at 6), there is  
18 no similar consensus regarding the impact of warming on future  
19 precipitation (*id.* at 7). Federal Defendants suggest that FWS  
20 “responsibly refused to engage in sheer guesswork, and properly  
21 declined to speculate as to how global warming might affect delta  
22 smelt.” (Doc. 242 at 23.) But, the NRDC letter cited a number  
23 of studies in addition to Mr. Dettinger’s presentations, all of  
24 which predict that anticipated climate change will adversely  
25 impact future water availability in the Western United States.

26 At the very least, these studies suggest that climate change  
27 will be an “important aspect of the problem” meriting analysis in  
28 the BiOp. *Pacific Coast Fed’n*, 265 F.3d at 1034. However, as  
with the 2004 FMWT data, the climate change issue was not

1 meaningfully discussed in the biological opinion, making it  
2 impossible to determine whether the information was rationally  
3 discounted because of its inconclusive nature, or arbitrarily  
4 ignored.<sup>27</sup>

5 **b. X2 as a Proxy for Climate Change.**

6 The State Water Contractors argue that the approaches taken  
7 in the DSRAM are "more than adequate to deal with the projected  
8 impacts of climate change - assuming they occur." (Doc. 241 at  
9 8.) For example, Plaintiffs' suggestion that climate change will  
10 produce earlier flows, more floods, and drier summers is  
11 addressed by the DSRAM's X2 trigger. Flow level changes will be  
12

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13 <sup>27</sup> Plaintiffs argue that "[r]egardless of the uncertainty  
14 involved in predicting the consequences of climate change, FWS  
15 had an obligation under the ESA to address the probable effects  
16 on Delta smelt." (Doc. 232 at 7.) In response, the State Water  
17 Contractors quote the following passage from *Bennett v. Spear*,  
520 U.S. 154, 176-177 (1997), in support of the proposition that  
the ESA intended to preclude exactly this kind of argument:

18 The obvious purpose of the requirement that each agency  
19 "use the best scientific and commercial data available"  
20 is to ensure that the ESA not be implemented  
21 haphazardly, on the basis of speculation or surmise.  
22 While this no doubt serves to advance the ESA's overall  
23 goal of species preservation, we think it readily  
24 apparent that another objective (if not indeed the  
primary one) is to avoid needless economic dislocation  
produced by agency officials zealously but  
unintelligently pursuing their environmental  
objectives.

25 But, this passage from *Bennet* was part of a broader discussion  
26 holding that persons who are economically burdened by a decision  
27 made under the ESA fall within the zone of interests the statute  
28 protects for the purposes of standing. *Bennet* sheds little light  
on the current inquiry -- whether and to what extent the data  
that was before the FWS regarding climate change should have been  
considered and addressed in the BiOp.

1 reflected in the position of X2. If climate change alters water  
2 temperatures, DSRAM also includes a temperature trigger, that  
3 monitors the temperature range within which successful Delta  
4 smelt spawning occurs.

5 The DSRAM offers no assurance that any mitigating fish  
6 protection actions will be implemented if the X2 criteria is  
7 triggered. That X2 indirectly monitors climate change does not  
8 assuage Plaintiffs' concerns that the BiOp has not adequately  
9 analyzed the potential impact of climate change on the smelt.

10 The BiOp does not gauge the potential effect of various  
11 climate change scenarios on Delta hydrology. Assuming, *arguendo*,  
12 a lawful adaptive management approach, there is no discussion  
13 when and how climate change impacts will be addressed, whether  
14 existing take limits will remain, and the probable impacts on  
15 CVP-SWP operations.

16 FWS acted arbitrarily and capriciously by failing to address  
17 the issue of climate change in the BiOp. This absence of any  
18 discussion in the BiOp of how to deal with any climate change is  
19 a failure to analyze a potentially "important aspect of the  
20 problem."<sup>28</sup>

21 Plaintiffs' motion for summary adjudication is **GRANTED** as to  
22 this claim.

23  
24 **D. There is No Rational Connection Between the No Jeopardy**  
25 **Finding and the Status of the Species.**

26 Plaintiffs next allege that there is no rational connection

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27 <sup>28</sup> There is no basis to determine what weight FWS  
28 should ultimately give the climate change issue in its analysis.

1 between the record evidence and the BiOp's "no jeopardy"  
2 conclusion. Plaintiffs first argue that the BiOp's approach to  
3 setting take limits is arbitrary and capricious because FWS  
4 failed to consider defined take limits in the context of current  
5 smelt abundance. Plaintiffs complain that the BiOp does not  
6 explain how its no jeopardy conclusion can be justified in light  
7 of the admitted adverse effects of the project, along with  
8 indirect and cumulative effects on the species.

9 In a formal consultation, the ESA requires FWS to  
10 "[f]ormulate its biological opinion as to whether the action,  
11 taken together with cumulative effects, is likely to jeopardize  
12 the continued existence of a listed species or result in the  
13 destruction or adverse modification of critical habitat." 50  
14 C.F.R. § 402.14; see also 16 U.S.C. § 1536(a)(2). The phrase  
15 "jeopardize the continued existence of" means "to engage in an  
16 action that reasonably would be expected, directly or indirectly,  
17 to reduce appreciably the likelihood of both the survival and  
18 recovery of a listed species in the wild by reducing the  
19 reproduction, numbers, or distribution of that species." 50  
20 C.F.R. § 402.02.

21 Agency action may be overturned if the agency has "relied on  
22 factors which Congress has not intended it to consider, entirely  
23 failed to consider an important aspect of the problem, offered an  
24 explanation for its decision that runs counter to the evidence  
25 before the agency, or is so implausible that it could not be  
26 ascribed to a difference in view or the product of agency  
27 expertise." *Pacific Coast Fed'n*, 265 F.3d at 1034. A court must  
28 ask "whether the agency considered the relevant factors and

1 articulated a rational connection between the facts found and the  
2 choice made." *Id.* The agency must "examine the relevant data  
3 and articulate a satisfactory explanation for its action  
4 including a rational connection between the facts found and the  
5 choice made." *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual*  
6 *Ins.*, 463 U.S. 29, 43 (1983).

7 **1. Plaintiffs' Argument that Salvage Underestimates**  
8 **Project Impacts on the Smelt.**

9 Plaintiffs assert that the BiOp's reliance on salvage is  
10 arbitrary and capricious because salvage is not a reliable basis  
11 for setting Project take limits. Plaintiffs cite record  
12 evidence, including statements made by smelt biologists and FWS  
13 employees, that salvage does not accurately estimate incidental  
14 take of young Delta smelt. (See AR 8403, 7578.) The BiOp admits  
15 that salvages does not fully account for all smelt losses. (AR  
16 419 ("It should be noted that although salvage is used to index  
17 delta smelt take, it does not reliably index delta smelt  
18 entrainment. Furthermore, delta smelt salvage is highly variable  
19 at all time scales....")) Plaintiffs have not shown that a  
20 better measure of smelt take could have been generated from  
21 available data. The agency is entitled to rely on this approach  
22 as it appears to be the "best estimate possible," no party has  
23 suggested an alternative. See *Oceana*, 384 F. Supp. 2d at 228.

24 This objection standing alone is insufficient to justify  
25 summary adjudication.

26 **2. The BiOp's Approach to Estimating Future Take**  
27 **Without Considering the Smelt's Current Abundance**  
28 **Is Arbitrary and Capricious.**

The take limits are based on historic sampling from "salvage

1 density" (number of fish taken per unit of water), which data is  
2 adjusted using CALSIM II modeling to reflect water flows  
3 anticipated under the circumstances of the final consultation.  
4 FWS's no jeopardy determination is based in part on flow modeling  
5 for the final consultation scenario that predicted lower than  
6 historic salvage levels during critical times. (AR 474 (finding  
7 that the level of anticipated take "is not likely to result in  
8 jeopardy to the smelt because this level of take is at or below  
9 historical levels of take."))

10 A close examination of the administrative record reveals  
11 that this conclusion relies upon an unsupported irrational  
12 assumption not justified by the record, i.e., that maintaining  
13 salvage at or below historic salvage levels will ensure that the  
14 2004 OCAP is not likely to jeopardize the continued existence of  
15 the Delta smelt. First, by focusing only on how proposed  
16 operations will either increase or decrease smelt take, FWS  
17 effectively limited its analysis to determining whether the  
18 magnitude of the OCAP's impact upon the smelt would be different  
19 from the Projects' impact under the regulatory historical  
20 baseline. FWS did not analyze how the absolute number of smelt  
21 taken during any given period of Project operations will impact  
22 overall smelt abundance at the time of the 2005 BiOp or in the  
23 future. Nor does the finding the smelt "still persists," even at  
24 the lowest recorded abundance levels, have any meaning if the  
25 smelt's "persistence" is at a level at or near extinction.  
26 Evaluating "persistence" instead of smelt population abundance is  
27 irrational, arbitrary, and runs counter to the evidence before  
28 the agency.

1           The Ninth Circuit, in *NWF v. NMFS*, 481 F.3d 1224 at \*8,  
2 invalidated a biological opinion in part because it failed to  
3 view the agency action “in the present and future human and  
4 natural contexts.” Here, the BiOp similarly fails to provide a  
5 scientific explanation for why it is appropriate to set  
6 incidental take without considering the most current smelt  
7 population data. This methodology fails to take most recent  
8 available natural conditions (i.e., the smelt’s current and/or  
9 future population abundance) into consideration. For example, if  
10 the smelt’s population is currently 600,000, it might be  
11 justifiable to permit a monthly take of over 30,000. However, if  
12 the smelt’s current population is only 60,000, allowing 30,000 to  
13 be entrained in the pumps in a single month would represent a 50%  
14 reduction in smelt population. Even if the 30,000 figure was  
15 significantly lower than historic take, Defendant-Intervenors  
16 agree “that salvage impacts cannot be accurately identified  
17 without a population estimate.” (Doc. 247 at 9 n.13.)

18           DWR asserts that, in setting the take limits, the BiOp took  
19 into consideration concerns expressed by experts that using  
20 historic information alone would not create an appropriate take  
21 limit. (See AR 4880, 5532, 5543). The first of the citations  
22 offered by DWR, an email sent by FWS’s Wim Kimmerer to several  
23 individuals at DWR, EPA and elsewhere, states that there was some  
24 discussion at FWS about “getting away from take as the principle  
25 criterion governing management and recovery of delta smelt.” (AR  
26 4880.) The next page of this email goes on to admit that  
27 “determining what level of mortality is acceptable or ‘safe’ is  
28 going to be difficult... Ultimately...this should be done through

1 some sort of population model or viability analysis." (AR 4881  
2 (emphasis added).) The other cited communications express  
3 similar concerns. (See AR 5532, 5543.) It is time to do it, yet  
4 FWS continues to profess the smelt population cannot be reliably  
5 measured.

6 DWR argues that, together, the take limits and the DSRAM  
7 address these concerns by moving the focus of management away  
8 from salvage. However, there is no way to know when or what  
9 measures will be taken under the DSRAM, which leaves the existing  
10 take limits as the only enforceable measures in the BiOp,<sup>29</sup> while  
11 the species heads toward extinction. Using flawed take limits  
12 and refusing to quantify smelt population and recent viability  
13 trends create substantial doubt about the reliability of the  
14 BiOp.

15 Defendants and Defendant-Intervenors suggest that sufficient  
16 information was simply not available to accurately determine  
17 smelt abundance.<sup>30</sup> Plaintiffs rejoin by referring to an email

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19 <sup>29</sup> There is no recognized mechanism for introducing any  
20 population viability data, collected through the adaptive  
management process, into the setting of the take limits.

21 <sup>30</sup> The San Luis Parties mischaracterize Plaintiffs  
22 argument as a request for FWS to undertake additional research  
23 projects. (Doc. 247.) Defendant Intervenors are correct that  
24 FWS is not required to undertake new research, *Greenpeace Action*  
*v. Franklin*, 14 F.3d 1324, 1335 (9th Cir. 1992) (agency may  
25 proceed despite uncertainty about accuracy of modeling effort);  
26 *Southwest Ctr for Biological Diversity*, 215 F. 3d 58, 60 (D.C.  
27 Cir. 2000) (agency could rely on inconclusive data to make  
28 decision; not obligated to conduct new independent studies).  
Plaintiffs do point out that FWS acknowledges in the AR that an  
accurate determination of non-jeopardy would require knowledge of  
how many smelt existed, what proportion would be lost due to the  
projects, and what level of loss would be sustainable. (Doc. 232

1 sent by Zachary Hymanson to Ryan Olah at FWS, with copies to  
2 others at concerned federal and state agencies. Mr. Hymanson  
3 opined: "I think we are at the point where we should report and  
4 use quantified estimates of the total number of individuals at  
5 the various life stages monitories. Quantified population and  
6 life stage estimates of fishes around the world are routinely  
7 made with A LOT less data than we have for delta smelt." (AR  
8 7542 (emphasis in original).)

9 The viability of Delta smelt has been under scrutiny for  
10 over ten years. No party has shown that producing a reliable  
11 population estimate is scientifically unfeasible. Information  
12 does not have to be perfect or infallible for the agency to be  
13 required to use it to create a population estimate. See  
14 *Greenpeace II*, 80 F. Supp. 2d at 1149-50 (finding it unlawful for  
15 agency to entirely ignore relevant factor and fail to analyze and  
16 develop projections regarding that factor based on information  
17 that was available); see also *Conner*, 848 F.2d at 1454  
18 (biological opinion invalidated because agency failed to "use  
19 best information available to prepare comprehensive biological  
20 opinions considering all stages of agency action."). Without  
21 population estimates, it is arbitrary for the agency to conclude  
22 that project operations will not result in jeopardy simply  
23 because the projects will take relatively fewer smelt than they  
24 did in the past, in the face of the undisputed fact that the

25 \_\_\_\_\_  
26 at 23 (citing AR 8221).) However, the crux of Plaintiffs'  
27 concern is that FWS has not developed such population data and  
28 ignored important existing data on abundance in setting the take  
limits.

1 smelt population has been declining steadily in recent years.  
2 Failing to incorporate any information about smelt population  
3 abundance into the setting of the take limits is a fundamental  
4 failure rendering the BiOp arbitrary and capricious.

5 The San Luis Parties' rationalization of FWS's approach,  
6 setting the incidental take limits using a model that does not  
7 take current abundance data into consideration, is that historic  
8 records reveal "either no, or perhaps a very weak relationship,  
9 between juvenile abundance measured by the TNS and adult  
10 abundance measured by the FMWT." (Doc. 247 at 5.) This "lack of  
11 [a] linear relationship between the two indices, shows that  
12 events after the TNS, in late summer and early fall, are probably  
13 affecting the number of juveniles that mature into spawners."  
14 (Doc. 247 at 6.) From the lack of a linear relationship, San  
15 Luis infers that something other than salvage (i.e. entrainment  
16 in the pumps) is causing the smelt's decline.<sup>31</sup>

17 The BiOp interprets the data differently:  
18

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19 <sup>31</sup> The Administrative Record reflects various explanations  
20 for the lack of a linear relationship between the TNS and the  
21 FMWT. (AR 1025-26.) One possible explanation for why the number  
22 of spawning age smelt (indexed by the FMWT) seems to be a poor  
23 predictor of subsequent offspring (indexed by the TNS) is that  
24 there is some environmental factor (not directly related to  
25 entrainment at the projects) limiting survivability, inferring  
26 that there is a carrying capacity for the population. (*Id.*)  
27 Alternatively, some scientists question whether it is proper to  
28 try to draw statistical conclusions from the entire 1969-2002  
data pool, given that the smelt experienced a precipitous decline  
in 1981. These scientists have postulated that the data "may  
reflect two different relationships from two time periods with  
different delta smelt carrying capacities." (*Id.* at 1026.) One  
study cited in the AR indicates that food supply may be the  
limiting factor during this time period. (AR 8976.)

1 In a near-annual fish like delta smelt, a strong  
2 relationship would be expected between number of  
3 spawners present in one year and number of recruits to  
4 the population the following year. Instead, the  
5 stock-recruit relationship for delta smelt is weak,  
6 accounting for about a quarter of the variability in  
7 recruitment (Sweetnam and Stevens 1993). This  
8 relationship does indicate, however, that factors  
9 affecting numbers of spawning adults (e.g.,  
10 entrainment, toxics, and predation) can have an effect  
11 on delta smelt numbers the following year.

12 (AR at 364 (emphasis added).)<sup>32</sup> Plaintiffs refer to other record  
13 evidence creating doubt that salvage is not a statistically  
14 reliable indicator of smelt abundance, including high entrainment  
15 events in the early 1980s and other "extreme events," including  
16 the El Niño of 1982-83, which caused significant declines in  
17 smelt abundance. (AR 8979.)

18 The BiOp acknowledges that salvage can have an impact on  
19 smelt abundance (although the statistical relationship is non-  
20 linear). It is arbitrary and capricious for FWS to base take  
21 limits on a projection of future salvage calculated without  
22 considering the most current or future smelt abundance and  
23 without reliable smelt population estimate.

24 Plaintiffs' motion for summary adjudication is **GRANTED** as to  
25 this issue. The BiOp's approach to setting incidental take  
26 limits is arbitrary and capricious because it fails to  
27 incorporate reliable smelt population data and the most recent  
28

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24 <sup>32</sup> The San Luis Parties raise numerous questions regarding  
25 FWS's conclusion that there is a statistical relationship between  
26 the numbers of spawning adults and Delta smelt abundance the  
27 following year, criticizing the statistical analyses referenced  
28 in the BiOp. (Doc. 247 at 5.) It is unnecessary to adjudicate  
these issues, as the San Luis Parties have not separately  
challenged the conclusions reached in the BiOp on this ground nor  
have they moved for summary judgment on any issue in this case.

1 information regarding smelt abundance.

2 **3. Plaintiffs' Argument That the BiOp Fails to**  
3 **Explain How its No Jeopardy Conclusion Can Be**  
4 **Justified in Light of the Identified Adverse**  
5 **Effects of the Project, along with Indirect and**  
6 **Cumulative Effects.**

7 In formulating a biological opinion, the ESA requires FWS to  
8 determine "whether the action, taken together with cumulative  
9 effects, is likely to jeopardize the continued existence of  
10 listed species or result in the destruction or adverse  
11 modification of critical habitat." 50 C.F.R. § 402.14 (emphasis  
12 added). "Jeopardize the continued existence of" means "to engage  
13 in an action that reasonably would be expected, directly or  
14 indirectly, to reduce appreciably the likelihood of both the  
15 survival and recovery of a listed species in the wild by reducing  
16 the reproduction, numbers, or distribution of that species." 50  
17 C.F.R. § 402.02 (emphasis added).

18 The BiOp concludes that the 2004 OCAP will have numerous  
19 direct and indirect impacts apart from salvage, including habitat  
20 loss, increased vulnerability of Delta smelt to predation, and  
21 increased vulnerability to adverse temperature effects. (See AR  
22 399, 443-44.) Plaintiffs allege that, although the BiOp lists  
23 indirect impacts, it fails to explain how they relate to the  
24 potential for jeopardy.

25 Federal Defendants respond to this allegation with a single  
26 paragraph, asserting generally that "the biological opinion  
27 considers the effects of dozens of project components, each with  
28 a multi-layered analysis," and indicating how many times the  
topics of predation (18), temperature changes (180 references),  
life cycle impacts (75 references to the term "juveniles") are

1 discussed in the BiOp. (Doc. 242 at 30.) What Federal  
2 Defendants do not do is point to those portions of the BiOp which  
3 analyze these issues in a way that demonstrates why these  
4 indirect impacts will not cause jeopardy or how they relate to  
5 survival and recovery of the smelt. A review of the BiOp does  
6 not reveal such an analysis.

7 The State Water Contractors suggest that the DSRAM trigger  
8 criteria were designed to address all of the potential impacts  
9 identified in the BiOp. (Doc. 241 at 8.) This leaves for future  
10 consideration and speculation the impacts events activating DSRAM  
11 triggers will have.

12 **a. Cumulative Impacts.**

13 Plaintiffs also argue that the BiOp fails to meaningfully  
14 address cumulative impacts, "those effects of future State or  
15 private activities, not involving Federal activities, that are  
16 reasonably certain to occur within the action area of the Federal  
17 action subject to consultation." 50 C.F.R. § 402.02. The BiOp  
18 highlights a number of predicted cumulative effects:

19 Any continuing or future non-Federal diversions of  
20 water that may entrain adult or larval fish would have  
21 cumulative effects to the smelt. Water diversions  
22 through intakes serving numerous small, private  
23 agricultural lands contribute to these cumulative  
24 effects. These diversions also include municipal and  
25 industrial uses. State or local levee maintenance may  
26 also destroy or adversely modify spawning or rearing  
27 habitat and interfere with natural long term habitat-  
28 maintaining processes.

Additional cumulative effects result from the impacts  
of point and non-point source chemical contaminant  
discharges. These contaminants include but are not  
limited to selenium and numerous pesticides and  
herbicides as well as oil and gasoline products  
associated with discharges related to agricultural and  
urban activities. Implicated as potential sources of  
mortality for smelt, these contaminants may adversely

1 affect fish reproductive success and survival rates.  
2 Spawning habitat may also be affected if submersed  
3 aquatic plants, used a[s] substrates for adhesive egg  
4 attachment, are lost due to toxic substances.

5 Other cumulative effects could include: the dumping of  
6 domestic and industrial garbage may present hazards to  
7 the fish because they could become trapped in the  
8 debris, injure themselves, or ingest the debris; golf  
9 courses reduce habitat and introduce pesticides and  
10 herbicides into the environment; oil and gas  
11 development and production remove habitat and may  
12 introduce pollutants into the water; agricultural uses  
13 on levees reduce riparian and wetland habitats; and  
14 grazing activities may degrade or reduce suitable  
15 habitat, which could reduce vegetation in or near  
16 waterways.

17 (AR 468.) There is no quantitative and qualitative analysis of  
18 the potential impact of these cumulative effects on the smelt and  
19 its habitat, except to identify the causes, the BiOp concludes  
20 without explanation, "[t]he cumulative effects of the proposed  
21 action [are] not expected to alter the magnitude of cumulative  
22 effects on the above described actions upon the critical  
23 habitat's conservation function for the smelt." (*Id.*)

24 The San Luis Parties argue that FWS's no jeopardy conclusion  
25 and impacts analysis is "rationally based on its determination  
26 that the proposed future changes will not significantly increase  
27 the magnitude of the ongoing Project's potential impacts." (Doc.  
28 247 at 9.) This conclusion is the kind of analysis recently  
rejected by the Ninth Circuit in *NWF v. NMFS*:

To "jeopardize the continued existence of" means "to  
engage in an action that reasonably would be expected,  
directly or indirectly, to reduce appreciably the  
likelihood of both the survival and recovery of a  
listed species in the wild by reducing the  
reproduction, numbers, or distribution of that  
species." 50 CFR § 402.02; 16 U.S.C. § 1536(a)(2). NMFS  
argues that, under this definition, it may satisfy the  
ESA by comparing the effects of proposed FCRPS  
operations on listed species to the risk posed by  
baseline conditions. Only if those effects are

1 "appreciably" worse than baseline conditions must a  
2 full jeopardy analysis be made. Under this approach, a  
3 listed species could be gradually destroyed, so long as  
4 each step on the path to destruction is sufficiently  
5 modest. This type of slow slide into oblivion is one of  
6 the very ills the ESA seeks to prevent.

7 Requiring NMFS to consider the proposed FCRPS  
8 operations in their actual context does not, as NMFS  
9 argues, effectively expand the "agency action" at issue  
10 to include all independent or baseline harms to listed  
11 species. Nor does it have the effect of preventing any  
12 federal action once background conditions place a  
13 species in jeopardy. To "jeopardize"--the action ESA  
14 prohibits--means to "expose to loss or injury" or to  
15 "imperil." Either of these implies causation, and thus  
16 some new risk of harm. Likewise, the suffix "-ize" in  
17 "jeopardize" indicates some active change of status: an  
18 agency may not "cause [a species] to be or to become"  
19 in a state of jeopardy or "subject [a species] to"  
20 jeopardy. American Heritage Dictionary of the English  
21 Language (4th ed.). Agency action can only "jeopardize"  
22 a species' existence if that agency action causes some  
23 deterioration in the species' pre-action condition.

24 Even under the so-called aggregation approach NMFS  
25 challenges, then, an agency only "jeopardize[s]" a  
26 species if it causes some new jeopardy. An agency may  
27 still take action that removes a species from jeopardy  
28 entirely, or that lessens the degree of jeopardy.  
However, an agency may not take action that will tip a  
species from a state of precarious survival into a  
state of likely extinction. Likewise, even where  
baseline conditions already jeopardize a species, an  
agency may not take action that deepens the jeopardy by  
causing additional harm.

Our approach does not require NMFS to include the  
entire environmental baseline in the "agency action"  
subject to review. It simply requires that NMFS  
appropriately consider the effects of its actions  
"within the context of other existing human activities  
that impact the listed species." *ALCOA*, 175 F.3d at  
1162 n. 6 (citing 50 C.F.R. § 402.02's definition of  
the environmental baseline). This approach is  
consistent with our instruction (which NMFS does not  
challenge) that "[t]he proper baseline analysis is not  
the proportional share of responsibility the federal  
agency bears for the decline in the species, but what  
jeopardy might result from the agency's proposed  
actions in the present and future human and natural  
contexts." *Pac. Coast Fed'n*, 426 F.3d at 1093 (emphasis  
added).

1 481 F.3d 1224 at \*7-8 (emphasis added) (footnote omitted).

2 Here, the BiOp does not consider the cumulative effects of  
3 any future DSRAM actions, which it relies on to avoid jeopardy,  
4 nor does it meaningfully relate the most current abundance of the  
5 species to future OCAP operations to assess jeopardy. The BiOp  
6 unlawfully fails to adequately analyze indirect and cumulative  
7 impacts of the 2004 OCAP. Summary adjudication on this issue is  
8 appropriate.

9 **E. Did the BiOp Fail to Adequately Consider Impacts to**  
10 **Critical Habitat?**

11 Plaintiffs allege that the BiOp fails to adequately consider  
12 critical habitat in two respects. First, by failing to analyze  
13 the impacts of the 2004 OCAP on the value of critical habitat for  
14 the recovery as opposed to just the survival of the smelt.

15 Second, failure to consider impacts to all of the Delta smelt's  
16 critical habitat because it focuses only on X2.

17 **1. Did the BiOp Fail to Consider Whether 2004 OCAP**  
18 **Would Diminish Value of Critical Habitat for**  
19 **Recovery?**

20 The ESA requires FWS to determine whether the 2004 OCAP will  
21 destroy or adversely affect Delta smelt critical habitat. 16  
22 U.S.C. § 1536(a) (2). "Destruction or adverse modification of  
23 critical habitat" means "a direct or indirect alteration that  
24 appreciably diminishes the value of critical habitat for both the  
25 survival and recovery of a listed species. Such alterations  
26 include, but are not limited to, alterations adversely modifying  
27 any of those physical or biological features that were the basis  
28 for determining the habitat to be critical." 50 C.F.R. § 402.02

Initially, the critical habitat analysis was conducted

1 pursuant to agency regulations that defined adverse modification  
2 as:

3 [A] direct or indirect alteration that appreciably  
4 diminishes the value of critical habitat for **both**  
5 **survival and recovery** of a listed species. Such  
6 alterations include, but are not limited to,  
7 alterations adversely modifying any of those physical  
8 or biological features that were the basis for  
9 determining the habitat to be critical.

10 50 C.F.R. § 402.02 (emphasis added).

11 Following the issuance of the 2004 BiOp, the Ninth Circuit  
12 invalidated the adverse modification regulation, based on its own  
13 interpretation of the regulation's language, "alteration that  
14 appreciably diminish the value of critical habitat for both the  
15 survival and recovery of a listed species," "reads the 'recovery'  
16 goal out of the adverse modification inquiry." *Gifford Pinchot*,  
17 378 F.3d at 1069-70.

18 The Bureau requested that FWS reinitiate consultation on the  
19 2004 OCAP to ensure compliance with *Gifford Pinchot*. The result  
20 was the disputed 2005 BiOp, which expressly states that it does  
21 not rely on the invalidated regulation. (AR 248.) Rather, the  
22 BiOp "relied on the statutory provisions of the ESA to complete  
23 the analysis with respect to critical habitat." (*Id.*) The ESA  
24 defines critical habitat as including "the specific areas ...  
25 occupied by the species ... which are ... essential to the  
26 conservation of the species" and the "specific areas outside the  
27 geographical area occupied by the species ... that ... are  
28 essential for the conservation of the species...." 16 U.S.C. §  
1532(5)(A). This statutory reference to "conservation" was the  
premise for the Ninth Circuit's *Gifford Pinchot* reasoning:

"Conservation" is a much broader concept than mere

1 survival. The ESA's definition of "conservation" speaks  
2 to the recovery of a threatened or endangered species.  
3 Indeed, in a different section of the ESA, the statute  
4 distinguishes between "conservation" and "survival."  
5 Requiring consultation only where an action affects the  
6 value of critical habitat to both the recovery and  
7 survival of a species imposes a higher threshold than  
8 the statutory language permits

9 378 F.3d at 1070 (internal citation omitted).

10 The 2005 BiOp uses the term "conservation," rather than  
11 "survival" and/or "recovery," several times in connection with  
12 its critical habitat analysis. In the "Critical Habitat Effects"  
13 section, the BiOp states that the "primary constituent elements  
14 essential to conservation of the species will not be affected by  
15 the proposed project." (AR 423.) In addition, after discussing  
16 critical habitat, including those areas essential to spawning,  
17 transport, rearing and migration, the BiOp acknowledges impacts,  
18 but explains that after the proposed diversions in the OCAP are  
19 implemented "the primary constituent elements [of critical  
20 habitat] essential to the conservation of the species still  
21 function." (*Id.* at 371.)<sup>33</sup> What specific effects any DSRAM

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22 <sup>33</sup> Defendant-Intervenors argue that, because of these  
23 mentions of "conservation," FWS is entitled to a "presumption of  
24 regularity," and the court must assume that agency considered  
25 recovery. (Doc. 247 at 12.) In *Gifford Pinchot*, after  
26 invalidating the destruction and adverse modification regulation,  
27 the Ninth Circuit considered whether it should presume that the  
28 agency followed its own regulation that was valid at the time the  
biological opinion was issued. The Ninth Circuit concluded that,  
because the agencies must be afforded a "presumption of  
regularity," a court must assume that the agency followed the  
then applicable regulation. *Id.* at 1072. Applying this  
presumption here, given that the agency specifically applied the  
statute, not the invalid regulation, there is no evidence the  
agency applied an invalid regulation. However, Defendant-  
Intervenors' suggestion that the presumption should be applied to  
validate the BiOp's analysis of recovery is misplaced. The

1 measures will have on the smelt are not described, nor is there  
2 discussion of how the survival and recovery of the smelt will be  
3 accomplished.

4 The Ninth circuit explained in *NWF v. NMFS*, that the agency  
5 must conduct a "full analysis" of risks to recovery.

6 The question before us is not whether, on the merits,  
7 recovery risks in fact require a jeopardy finding here,  
8 but whether, as part of the consultation process, NMFS  
9 must conduct a **full analysis** of those risks and their  
10 impacts on the listed species' continued existence.  
11 Although recovery impacts alone may not often prompt a  
12 jeopardy finding, NMFS's analytical omission here may  
13 not be dismissed as harmless: the highly precarious  
14 status of the listed fishes at issue raises a  
15 substantial possibility that considering recovery  
16 impacts could change the jeopardy analysis. The only  
17 reasonable interpretation of the jeopardy regulation  
18 requires NMFS to consider recovery impacts as well as  
19 survival.

20 481 F.3d 1224 at \*9-\*10 (emphasis added).<sup>34</sup>

21 Plaintiffs claim that although the BiOp includes generic  
22 promises to consider recovery of the smelt, it does not  
23 competently analyze nor provide for recovery. Federal Defendants  
24 and Defendant Intervenors respond that the BiOp's discussion of  
25 critical habitat effects, in conjunction with the BiOp's  
26 conclusion that "the smelt's primary constituent elements  
27 essential to the conservation of the species [will] still  
28

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agency still has an obligation to thoroughly consider the issue  
of recovery and to reach a reasoned conclusion based on the  
evidence in the administrative record.

<sup>34</sup> Although this portion of *NWF v. NMFS* concerned analysis  
of recovery in the context of the "no jeopardy" determination, as  
opposed to the "destruction or adverse modification of critical  
habitat" analysis, the holding is equally applicable to habitat  
jeopardy.

1 function" (AR 371) under the 2004 OCAP, is a sufficient analysis  
2 of the impacts on recovery.

3 The BiOp's overarching conclusion is that "the smelt's  
4 primary constituent elements essential to the conservation of the  
5 species [will] still function." In designating critical habitat  
6 for a listed species, FWS must "consider those physical and  
7 biological features that are essential to the conservation of  
8 [the] species and that may require special management  
9 considerations or protection." 50 C.F.R. § 424.12. The features  
10 that must be considered include, but are not limited to, the  
11 following:

- 12 1. Space for individual and population growth, and  
13 for normal behavior;
- 14 2. Food, water, air, light, minerals, or other  
15 nutritional or physiological requirements;
- 16 3. Cover or shelter;
- 17 4. Sites for breeding, reproduction, rearing of  
18 offspring, germination, or seed dispersal; and
- 19 5. Habitats that are protected from disturbance or  
are representative of the historic geographical  
and ecological distributions of a species.

20 *Id.* The BiOp explained that, in designating critical habitat for  
21 the Delta smelt, FWS identified the following primary constituent  
22 elements "essential to the conservation of the species":

23 Physical habitat, water, river flow, and salinity  
24 concentrations required to maintain delta smelt habitat  
and adult migration.

25 \*\*\*

26 Specific areas that have been identified as important  
27 delta smelt spawning habitat include Barker, Lindsey,  
28 Cache, Prospect, Georgiana, Beaver, Hog, and Sycamore  
sloughs and the Sacramento River in the Delta, and

1 tributaries of northern Suisun Bay.

2 Larval and juvenile transport. Adequate river flow is  
3 necessary to allow larvae from upstream spawning areas  
4 to move to rearing habitat in Suisun Bay and to ensure  
5 that rearing habitat is maintained in Suisun Bay. To  
6 ensure this, X2 must be located westward of the  
7 confluence of the Sacramento-San Joaquin Rivers,  
8 located near Collinsville (Confluence), during the  
9 period when larvae or juveniles are being transported,  
10 according to historical salinity conditions. X2 is  
11 important because the "entrapment zone" or zone where  
12 particles, nutrients, and plankton are "trapped,"  
13 leading to an area of high productivity, is associated  
14 with its location. Habitat conditions suitable for  
15 transport of larvae and juveniles may be needed by the  
16 species as early as February 1 and as late as August  
17 31, because the spawning season varies from year to  
18 year and may start as early as December and extend  
19 until July.

20 Rearing habitat. An area extending eastward from  
21 Carquinez Strait, including Suisun, Grizzly, and Honker  
22 bays, Montezuma Slough and its tributary sloughs, up  
23 the Sacramento River to its confluence with Three Mile  
24 Slough, and south along the San Joaquin River including  
25 Big Break, defines the specific geographic area  
26 critical to the maintenance of suitable rearing  
27 habitat. Three Mile Slough represents the approximate  
28 location of the most upstream extent of historical  
tidal incursion. Rearing habitat is vulnerable to  
impacts of export pumping and salinity intrusion from  
the beginning of February to the end of August.

Adult migration. Adequate flow and suitable water  
quality is needed to attract migrating adults in the  
Sacramento and San Joaquin river channels and their  
associated tributaries, including Cache and Montezuma  
sloughs and their tributaries. These areas are  
vulnerable to physical disturbance and flow disruption  
during migratory periods.

(AR 368-69.)

The BiOp acknowledges that this Delta smelt critical habitat  
has been adversely affected by numerous activities, but indicates  
that the 1994 and 1995 OCAP BiOps "provide a substantial part of  
the necessary riverine flows and estuarine outflows that allow  
smelt larvae to move downstream to suitable rearing  
habitat...outside the influence of marinas, agricultural

1 diversions, and Federal and State pumping plant.” (AR 371.) The  
2 BiOp also explains that increasing demands for surface water  
3 “would likely result in lower delta outflows and increased  
4 entrainment,” but that the impacts of these demands “have not  
5 altered critical habitat’s conservation function for the delta  
6 smelt, and the smelt’s primary constituent elements essential to  
7 the conservation of the species still function.” (Id.) Finally,  
8 the BiOp concludes:

9           In evaluating the Status of the Species for critical  
10           habitat and the Environmental Baseline, while there are  
11           current actions that result in adverse effects to delta  
12           smelt critical habitat, the primary constituent  
13           elements continue to remain functional for the smelt.  
14           In the effects section, the Service determined that the  
15           primary constituent elements of delta smelt critical  
16           habitat would not be affected by the proposed project  
17           since there will not be a loss of physical habitat in  
18           the delta, river flows will continue to provide  
19           habitat, salinity will not be affected by the proposed  
20           project, and no breeding habitat will be affected and  
21           the sustainability of the food base will not be  
22           affected. In the cumulative effects section, we  
23           determined that the cumulative effects of the proposed  
24           action are not expected to alter the magnitude of  
25           future actions’ effects on critical habitat’s  
26           conservation function for the smelt. Based on the  
27           analysis in these four areas, it is our conclusion that  
28           Critical habitat is not likely to be adversely modified  
          or destroyed as a result of implementing the proposed  
          project.

(AR 469 (emphasis added).)

          These conclusions are not supported by most recent smelt  
data to corroborate that the primary constituent elements of  
Delta smelt habitat will still function in a manner consistent  
with conservation (i.e. recovery). The functions and their  
locations are identified, but impacts upon breeding habitat are  
not analyzed. Second, although “there will still be water in the  
Delta....whether the water will be of adequate quality and

1 quantity to allow the delta smelt to recover is an entirely  
2 different question.” (Doc. 306 at 25.) The BiOp does not  
3 analyze the water supply, temperature, and quality under variable  
4 conditions with results that demonstrate the impact on smelt, nor  
5 is such an analysis found elsewhere in the administrative  
6 record.<sup>35</sup>

7 The analysis of the predicted movement of X2 is more  
8 specific. When X2 is located upstream of Chipps Island, smelt  
9 are vulnerable to entrainment and are located in an area that is  
10 not ideal for feeding or protection. (See AR 424.) FWS opines  
11 that smelt reproduce better when X2 remains in a specific area,  
12 west of the confluence of the Sacramento and San Joaquin Rivers.  
13 That smelt reproduction is increased and the fish may be located  
14 where there are better sources of food does not assure that the  
15 smelt are on a path to recovery. The DSRAM is to provide the  
16 means by which FWS will maintain X2 in the most beneficial  
17 location. As the DSRAM is uncertain, speculative, and lacking  
18 enforceable action measures, there is no reasonable assurance  
19 that X2 will be maintained in the necessary protective location.

20 DSRAM utilizes other trigger criteria, arguably aimed at the  
21 recovery of the smelt. (Doc. 241 at 13-14.) One criteria is the  
22 “recovery index trigger,” derived from the September and October  
23 FMWT sampling. (AR 347; Sommer Decl. at ¶9a.) The number used  
24

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25 <sup>35</sup> There is also merit to Plaintiffs’ argument that  
26 “[g]iven that the very same sorts of impacts to critical habitat  
27 have contributed to the species decline, one might expect FWS to  
28 examine carefully how the continuance and magnification of these  
kinds of impacts could allow for the survival of the species,  
much less its recovery.” (Doc. 306 at 5.)

1 to trigger the DSWG is 74, the median value of the recovery index  
2 for the 1980-2002 period. Whenever the recovery index falls  
3 below this median, the DSWG convenes to decide whether to  
4 recommend actions. (AR 346-47.) Use of the term "recovery" in  
5 the title of the trigger index, suggests that this index will  
6 serve to monitor the potential for the smelt population to  
7 recover. This title is inaccurate. All that this trigger  
8 criteria monitors is whether the abundance of smelt drops below  
9 the 1980-2002 median abundance. As smelt have been in decline  
10 throughout the period to February 2005, the opinion that  
11 maintaining abundance slightly above this median leads to  
12 recovery of the smelt is unjustified.

13 The temperature trigger criterion of 12 - 18°C, the range  
14 within which the most smelt spawning occurs, is more arguably  
15 focused on recovery. (AR 347.) If the number of days falling  
16 within the temperature range is 39 days or less by April 15, or  
17 50 days or less by May 1, DSWG is triggered. This trigger is  
18 arguably related to the recovery of smelt, because it focuses on  
19 spawning. However, no action except a group meeting is required  
20 in response to the trigger. Moreover, maximizing the potential  
21 for smelt to spawn is only one aspect of recovery. If Project  
22 operations and/or other impacts kill more smelt than are produced  
23 during spawning, recovery does not occur. The existence of this  
24 trigger, alone, does not establish that recovery of smelt was  
25 adequately considered or addressed.<sup>36</sup>

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26  
27 <sup>36</sup> The San Luis Parties correctly note that the CALSIM II  
28 models indicate that increased pumping capacity and operational  
flexibility may actually increase the smelt's prospects vis-a-vis

1                   **2. The BiOp Does Not Adequately Assess Impacts to All**  
2                   **Areas of Critical Habitat.**

3                   Plaintiffs also allege that the BiOp arbitrarily ignores  
4 impacts to certain areas of critical habitat because it focuses  
5 on X2 as a proxy for Delta smelt habitat. Plaintiffs argue that  
6 the focus on X2 ignores other areas of designated critical  
7 habitat.

8                   The BiOp focuses on the impact project operations have had  
9 and will have on the position of X2. Defendants and Defendant-  
10 Intervenor argue that critical habitat will be protected,  
11 because any impacts to the position of X2 will be addressed by  
12 the DSRAM. The State Water Contractors contend that protecting  
13 critical habitat outside X2 "makes no sense if they are not the  
14 areas in which the fish resides." (Doc. 241 at 17.)

15                   Plaintiffs do not dispute the notion that X2 directly  
16 relates to where most smelt are located. Rather, Plaintiffs  
17 maintain that critical habitat is not coextensive with X2. The  
18 BiOp identifies numerous areas in which smelt occur (AR 362) and  
19 acknowledges that X2 "does not necessarily regulate smelt  
20 distribution in all years." (*Id.*) Delta smelt critical habitat  
21 is defined by physical boundaries:

22                   California--Areas of all water and all submerged lands  
23 below ordinary high water and the entire water column  
24 bounded by and contained in Suisun Bay (including the  
25 contiguous Grizzly and Honker Bays); the length of  
26 Montezuma Slough; and the existing contiguous waters  
27 contained within the Delta, as defined by section  
28 12220, of the State of California's Water Code of 1969  
(a complex of bays, dead-end sloughs, channels

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the regulatory baseline. However, that the species will fare better than in the past does not assure that the totality of OCAP operations are consistent with the smelt's recovery.

1 typically less than 4 meters deep, marshlands, etc.) as  
2 follows:

3 Bounded by a line beginning at the Carquinez Bridge  
4 which crosses the Carquinez Strait; thence,  
5 northeasterly along the western and northern shoreline  
6 of Suisun Bay, including Goodyear, Suisun, Cutoff,  
7 First Mallard (Spring Branch), and Montezuma Sloughs;  
8 thence, upstream to the intersection of Montezuma  
9 Slough with the western boundary of the Delta as  
delineated in section 12220 of the State of  
California's Water Code of 1969; thence, following the  
boundary and including all contiguous water bodies  
contained within the statutory definition of the Delta,  
to its intersection with the San Joaquin River at its  
confluence with Suisun Bay; thence, westerly along the  
south shore of Suisun Bay to the Carquinez Bridge.

10 59 Fed. Reg. 65,256, 65,277 (Dec. 19, 1994).

11 Federal Defendants respond that "the agencies have developed  
12 an operating and adaptive management system that adequately  
13 protects the existing critical habitat, that reasonably uses X2  
14 as an evaluation tool, and that also ensures that 'additional  
15 measures' will be taken in accordance with the DSRAM to  
16 affirmatively and proactively manage habitat, as needed." (Doc.  
17 242 at 26.) But, apart from the X2 analyses, Federal Defendants  
18 identify no other record evidence that reflects the agency  
19 analyzed impacts to critical habitat or that any "additional  
20 measures" will be required under DSRAM, as the DSRAM does not  
21 require any measure be implemented.

22 Defendant Intervenors assert that it is unnecessarily costly  
23 to accommodate impacts to all of the geographically designated  
24 critical habitats because the smelt are not located in the  
25 entirety of their critical habitat range all of the time. They  
26 argue the focus must be on protecting the habitat occupied by the  
27 smelt. Even if more sensible, the law requires that the agency  
28 analyze whether project operations will directly or indirectly

1 alter critical habitat in a way that "appreciably diminishes the  
2 value of critical habitat for both the survival and recovery of a  
3 listed species." 50 C.F.R. § 402.02. "Such alterations include,  
4 but are not limited to, alterations adversely modifying any of  
5 those physical or biological features that were the basis for  
6 determining the habitat to be critical." *Id.* The statute  
7 defines critical habitat to include both "the specific areas  
8 within the geographical area occupied by the species...on which  
9 are found those physical or biological features...essential to  
10 the conservation of the species" and "specific areas outside the  
11 geographical area occupied by the species...upon a determination  
12 by the Secretary that such areas are essential for the  
13 conservation of the species." 16 U.S.C. § 1532(5)(A). The  
14 definition of critical habitat is broader than the specific areas  
15 of occupation.

16 Here, the agency defined critical habitat to have a  
17 geographic scope. Absent any alterations to the critical habitat  
18 designation, the agency must address in the BiOp the full extent  
19 of impacts to the currently designated critical habitat,<sup>37</sup> which  
20 excluded "already degraded areas." Alternatively, the Delta

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21  
22 <sup>37</sup> Plaintiffs raise an additional contention why the  
23 critical habitat analysis is insufficient; i.e., that the BiOp  
24 unlawfully "writes off" areas of critical habitat because they  
25 have already been degraded. For example, the BiOp concludes that  
26 "[a]n upstream movement of X2 of 0.5 km would not be significant  
27 when [X2] is located upstream of the [Sacramento-San Joaquin  
28 River] confluence because smelt habitat is already poor and the  
upstream movement does not result in any substantial additional  
loss of habitat or increase in adverse effects." (AR 443.) This  
issue need not be reached, as the critical habitat analysis is  
insufficient on other grounds. Federal Defendants are already  
revising the BiOp to reflect new information and new law.

1 smelt's critical habitat should be redefined to reflect the  
2 actual location of the smelt, if such redesignation would be  
3 consistent with law.

4 This has not been done. Plaintiffs motion for summary  
5 adjudication is **GRANTED** as to this issue.

6  
7 **F. Did the BiOp Fail to Address the Impacts of the Whole**  
8 **Project?**

9 **1. Plaintiffs' Argument That the BiOp Should Have**  
10 **Analyzed the Effects of Constructing the SDIP,**  
11 **Intertie, and FRWP.**

12 Plaintiffs complain that the BiOp's scope is unlawfully  
13 narrow because it fails to consider all planned actions. The  
14 BiOp includes within its formal consultation, "delivery of CVP  
15 water to the proposed Freeport Regional Water Project (FRWP)" as  
16 well as the "operation of the SWP-CVP intertie." The BiOp  
17 designates as an early consultation issue "operations of  
18 components of the South Delta Improvement Program (SDIP)," which  
19 include "permanent barrier operations in the South Delta." (AR  
20 248.) The effects of constructing the FRWP, the Intertie, and  
21 the permanent barriers are to be covered in separate formal  
22 consultations. (AR 256, 339, 341, 421.)

23 The ESA requires FWS to address impacts associated with the  
24 entire agency action. See *Conner*, 848 F. 2d at 1453-54 (holding  
25 that agency violated ESA by choosing not to analyze the effects  
26 of all stages of oil and gas activity on federal lands).  
27 According to ESA regulations, the effects of an agency action  
28 include "direct and indirect effects of an action on the species  
or critical habitat, together with the effects of other

1 activities that are interrelated or interdependent with that  
2 action, that will be added to the environmental baseline." 50  
3 C.F.R. § 402.02. "The meaning of 'agency action' is determined  
4 as a matter of law by the Court, not by the agency." *Greenpeace*  
5 *II*, 80 F. Supp. 2d at 1146 (citing *Pacific Rivers Council v.*  
6 *Thomas*, 30 F.3d 1050, 1054 (9th Cir. 1994).)

7 The BiOp explains its approach to scope as follows:

8 The proposed action is to continue to operate the CVP  
9 and SWP in a coordinated manner. In addition to current  
10 day operations, several future actions are to be  
11 included in this consultation. These actions are: (1)  
12 increased flows in the Trinity River, (2) 8500 Banks,  
13 (3) permanent barriers operated in the South Delta, (4)  
14 an intertie between the California Aqueduct (CA) and  
15 the Delta-Mendota Canal (DMC), (5) a long-term EWA, (6)  
16 delivery of CVP water to the FRWP, and (7) various  
operational changes that are identified in this project  
description. Some of these items will be part of early  
consultation including 8500 Banks, permanent barriers  
and the long-term EWA. These proposed actions will come  
online at various times in the future. Thus, the  
proposed action is continued operation of the Project  
without these actions, and operations as they come  
online.

17 The actions listed in the preceding paragraph are not  
18 being implemented at present; however, they are part of  
19 the future proposed action on which Reclamation is  
20 consulting. Only the operations associated with the  
21 proposed activities are addressed in this consultation;  
22 i.e., the activities do not include construction of any  
facilities to implement the actions. All site  
specific/localized activities of the actions such as  
construction/screening and any other site specific  
effects will be addressed in separate action specific  
section 7 consultations.

23 (AR at 256 (emphasis added).) In sum, only those aspects of the  
24 2004 OCAP that will be implemented without further approval were  
25 the subject of formal consultation. However, certain other  
26 changes that will be effectuated in the future were the subject  
27 of early consultation. With respect to future operational  
28 changes, including some subject to formal consultation, full

1 implementation will require the construction of specified  
2 facilities. The impact of the construction activities themselves  
3 will be the subject of separate § 7 consultation.

4 Plaintiffs argue that the BiOp should have addressed the  
5 full impacts of construction of the Intertie, Freport diversion,  
6 and the SDIP because those projects are within the scope of the  
7 agency action as a whole and are "interrelated and  
8 interdependent" with the 2004 OCAP.<sup>38</sup>

9 In response, Federal Defendants cite the Endangered Species  
10 Consultation Handbook, which explains, in a hypothetical example,  
11 that operation of an existing dam project need not be considered  
12 an interrelated or interdependent activity, where the agency  
13 action being evaluated in a biological opinion was the addition  
14  
15

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16  
17 <sup>38</sup> The San Luis Parties cite *Gifford Pinchot* in support of  
18 the proposition that this is a properly "tiered" biological  
19 opinion. In *Gifford Pinchot*, the Ninth Circuit approved for the  
20 the tiering of a biological opinion for timber harvests in  
21 specified forest areas. The no jeopardy conclusion contained in  
22 that biological opinion relied on compliance with a very  
23 thorough, overarching forest management plan that was previously  
24 approved by the court. 378 F.3d at 1067-68. *Gifford Pinchot*  
25 allowed the agency to tier its BiOp of a timber harvest with a  
26 programmatic forest management plan that provided guidelines  
27 regarding the harvesting of timber. *Rodgers*, 381 F. Supp. 2d at  
28 1228 n.27, interpreted the holding narrowly to apply tiering only  
to cases in which the programmatic opinion was particularly  
thorough. Tiering of future construction projects is not  
appropriate here, because the BiOp provides no programmatic  
guidelines regarding construction activities. However, just  
because the later projects cannot be "tiered" off the current  
BiOp does not mean they must be included in the current BiOp.  
The relevant inquiry is whether the construction projects are  
interrelated to and/or interdependent upon the BiOp and the 2004  
OCAP.



1 remember that interrelated or interdependent activities  
2 are measured against the proposed action. That is, the  
3 relevant inquiry is whether the activity in question  
4 should be analyzed with the effects of the action under  
5 consultation because it is interrelated to, or  
6 interdependent with, the proposed action. Be careful  
7 not to reverse the analysis by analyzing the  
8 relationship of the proposed action against the other  
9 activity. For example, as cited below, if the proposed  
10 action is the addition of a second turbine to an  
11 existing dam, the question is whether the dam (the  
12 other activity) is interrelated to or interdependent  
13 with the proposed action (the addition of the turbine),  
14 not the reverse.

15 Section 7 Handbook at 4-26.

16 Here, applying the Handbook test, the question is whether  
17 the other activities (construction and operation of SDIP,  
18 Freeport, and the Intertie) are interrelated to or interdependent  
19 with the proposed actions subject to formal consultation? The  
20 formal consultation, as described in the BiOp, covers

21 ...the proposed 2020 operations of the CVP including  
22 the Trinity River Mainstem ROD (Trinity ROD) flows on  
23 the Trinity River, the increased water demands on the  
24 American River, the delivery of CVP water to the  
25 proposed Freeport Regional Water Project (FRWP), water  
26 transfers, the long term Environmental Water Account  
27 (EWA), the operation of the Tracy Fish Facility, and  
28 the operation of the SWP-CVP intertie. The effects of  
operations of the SWP are also included in this opinion  
and include the operations of the North Bay Aqueduct,  
the Suisun Marsh Salinity Control Gates, the Skinner  
Fish Facility and water transfers.

(AR 248 (emphasis added).) The formal consultation admittedly  
covers delivery of CVP water to the proposed FRWP and operation  
of the Intertie. But, the BiOp expressly excludes the impacts of  
construction associated with FRWP or the Intertie:

The actions listed in the preceding paragraph  
[including permanent barriers in the South Delta, an  
intertie, and the FRWP] are not being implemented at  
present; however, they are part of the future proposed  
action on which Reclamation is consulting. Only the  
operations associated with the proposed activities are

1           addressed in this consultation; i.e., the activities do  
2           not include construction of any facilities to implement  
3           the actions. All site specific/localized activities of  
4           the actions such as construction/screening and any  
5           other site specific effects will be addressed in  
6           separate action specific section 7 consultations.

7 (AR 256 (emphasis added).)

8           Is there a "but-for" relationship between the 2004 OCAP and  
9           the new projects? The FRWP and the Intertie are designed to more  
10          effectively distribute CVP and SWP waters. There is no evidence  
11          in the record indicating that construction of either project is  
12          tied in any way to the pre-approval of delivery of water to the  
13          projects. Flow operations could be approved after or  
14          simultaneously with the approval of new construction. Under the  
15          Handbook test, the construction projects are not considered  
16          interdependent and interrelated. These projects may be consulted  
17          upon separately. By approving a flow regime before the  
18          construction, the Bureau may plan for the possibility that the  
19          FRWP will be constructed in the future. The entire OCAP BiOp  
20          would not need to be revised should the projects be constructed.  
21          This is a reasonable approach.

22          With respect to the SDIP, the BiOp currently excludes both  
23          its operation and related construction coverage under the formal  
24          consultation. Plaintiffs allege that both should have been  
25          covered by the BiOp because they are interrelated with or  
26          interdependent on the agency action. Applying the Handbook  
27          analysis, the operation and construction of the SDIP (which  
28          includes increased pumping at Banks and operation of permanent  
            barriers) will not occur "but for" the approval of the 2004 OCAP  
            for CVP-SWP operations? Each action is independent of the 2004

1 OCAP. The SDIP is a separate addition that may or may not be  
2 constructed. Project operations under the 2004 OCAP in no way  
3 depend upon the SDIP. There is no prohibition to addressing the  
4 future operation, if and when the construction of the SDIP will  
5 occur, in a separate consultation.

6 Plaintiffs' motion for summary adjudication is **DENIED** as to  
7 the future projects issue.

8  
9 **2. Plaintiffs' Argument that the BiOp Failed to  
Analyze the Impact of Full Contract Deliveries.**

10 A biological opinion must consider the effects of the entire  
11 agency action, meaning "all activities or programs of any kind  
12 authorized, funded, or carried out," including "the granting  
13 of...contracts." 50 C.F.R. § 402.02. One of the primary  
14 purposes of the 2004 OCAP is to "deliver water supplies to  
15 affected water rights holders as well as project contractors."  
16 (AR 259.) The Bureau delivers water to numerous parties pursuant  
17 to long-term contracts ("CVP Contracts"), some of which were  
18 renewed shortly after the BiOp was issued. (AR 4732, 4796,  
19 4855.)

20 The CALSIM II model incorporated water deliveries into its  
21 various flow scenarios, but only performed its analysis based on  
22 the effects of delivering between 11 and 89 percent of the full  
23 CVP Contract allocations. (See AR 1067; see also Doc. 242 at 31  
24 (acknowledging that the agency "did not evaluate the impacts of  
25 100% percent delivery of all contracted waters".) This range of  
26 delivery scenarios is based on historic average water deliveries.

27 Plaintiffs allege that, by failing to evaluate the impact of  
28 delivering full amount (100%) of contracted water, the BiOp

1 violates the requirement that the it evaluate the entire agency  
2 action. Plaintiffs cite *Rodgers*, 381 F. Supp. 2d at 1237-40,  
3 which examined a biological opinion approving long term water  
4 contracts in the Friant, Buchanan, and Hidden water units of the  
5 CVP. The BiOp only examined the impacts of the amount of  
6 historical water deliveries, which amounted to less than half of  
7 the water deliveries authorized under the long term water service  
8 contracts. *Id.* at 1237-28.

9           The Friant long-term contracts cumulatively authorized  
10 the Bureau to deliver more than 2.1 million acre-feet  
11 of water per year, for twenty-five years. Rather than  
12 analyzing the effects of 2.1 million acre-feet of water  
13 delivery, FWS explained that its "effects analysis is  
14 conducted under the expectation that water will be  
15 delivered to CVP service contractors in quantities that  
16 approximate historic deliveries (1988 through 1997), as  
17 given in Appendix D of the November 21, 2000  
18 programmatic long-term CVP contracts consultation."  
19 This assumption was made, the BiOp explained, because  
20 "delivery of full contract quantities is unrealistic."

21 *Id.* at 1238. *Rodgers* rejected FWS's approach, reasoning that the  
22 "ESA requires that all impacts of agency action-both present and  
23 future effects-be addressed in the consultation's jeopardy  
24 analysis."

25           The fact that it was thought by FWS that "delivery of  
26 full contract quantities is unrealistic" and that  
27 "deliveries continue to be impacted by existing  
28 climate, hydrology, actions and statutes, ...  
socio-economic factors" does not excuse consulting on  
the "entire agency action," which was the authorized  
delivery of over 2.1 million acre-feet of water, and  
nothing less than that.

*Id.* at 1239.

          Federal defendants assert that the *Rodgers* decision was  
wrong, arguing that "[a]bsent alternative information that the  
agency failed to consider, and given the fact that the agency did

1 use the best available information, the *Rodgers* court should have  
2 deferred to the agency.” (Doc. 242 at 32.) It is not the  
3 province of another district court to decide whether *Rodgers* is  
4 “wrong.” *Rodgers* is distinguishable as it specifically addressed  
5 the government authorization of CVP water users’ long-term water  
6 service contracts. Those contracts authorized 2.1 MAF of water  
7 deliveries in total. *Rodgers* found unlawful the biological  
8 opinion’s limitation in its scope to approximate historic  
9 deliveries, instead of the full contract allocations. Here,  
10 however, the agency action subject to consultation is not the  
11 authorization or merits of the water service contracts, rather,  
12 it is the operation of the CVP and SWP under the OCAP and whether  
13 those projected operations will cause jeopardy to the survival  
14 and recovery of smelt or smelt habitat. The government is  
15 entitled to make reasonable assumptions about the operational  
16 volume of water flows, water levels, temperature, and quality  
17 based on the historical and projected data in the administrative  
18 record. The BiOp explains that the delivery of full water  
19 service contract entitlements is expected only when excess water  
20 conditions exist, i.e., in a wet water year when sufficient water  
21 is available to meet all beneficial needs. (AR 259.) Plaintiffs  
22 do not suggest that this assumption is factually impossible.  
23 (Nor would it be unreasonable for FWS to model a full (100%)  
24 water contract delivery scenario, even if it has not happened in  
25 the past fifteen years.) The agency model for the worst case  
26 scenario is indispensable. Analysis of a “best of the best” case  
27 in a wet water year is not indispensable, as such “wet” water  
28 year conditions do not present any reasonable likelihood of

1 jeopardy, absent an additional showing. However, because such a  
2 scenario could eventuate, it is not unlawful for the agency to  
3 analyze the effects on the smelt of 100% water contract  
4 deliveries. However, the 100% delivery analysis is not required.  
5 This is a matter committed to the agency's expertise and  
6 discretion.

7 Plaintiffs motion for summary adjudication is **DENIED** as to  
8 this issue.

9  
10 **VIII. CONCLUSION**

11 As the history of the many CVP water cases decided in this  
12 court evidences, the duty to defer to the agency's expertise is  
13 well recognized and honored, when the agency has acted reasonably  
14 and lawfully to discharge its statutory responsibilities. The  
15 disputed BiOp depends in material measure for its no jeopardy  
16 finding on the DSRAM, which is legally insufficient. The  
17 agency's recognition the Delta smelt is increasingly in jeopardy;  
18 that its operative BiOp is inadequate, as evidenced by its second  
19 initiation of reconsultation for the 2004 OCAP, now pending, and  
20 its insistence that it will nonetheless operate the Projects  
21 under the challenged BiOp is unreasonable. The agency could  
22 have, but did not, offer a viable protective alternative.  
23 Adaptive management is within the agency's discretion to choose  
24 and employ, however, the absence of any definite, certain, or  
25 enforceable criteria or standards make its use arbitrary and  
26 capricious under the totality of the circumstances.

27 The agency's failure to reasonably estimate the Delta smelt  
28 population and to analyze most recent smelt abundance data make

1 the take limits based on historical data unreliable and  
2 unreasonable. The Delta smelt is undisputedly in jeopardy as to  
3 its survival and recovery. The 2005 BiOp's no jeopardy finding  
4 is arbitrary, capricious, and contrary to law.

5 For all the reasons set forth above, the 2005 OCAP BiOp is  
6 unlawful and inadequate on the following grounds:

7 (1) The DSRAM, as currently structured, does not provide a  
8 reasonable degree of certainty that mitigation actions  
9 will take place, even if the agency retains the  
10 discretion to draw upon numerous sources of water, not  
11 just the EWA, CVPIA(b) (2), and VAMP programs, to  
12 support fish protection.

13 (2) The agency failed to utilize the best available  
14 scientific information by not addressing the 2004 FMWT  
15 data and the issue of climate change.

16 (3) The BiOp's historical approach to setting take limits  
17 fails to consider take in the context of most recent  
18 overall species abundance and jeopardy.

19 (4) The BiOp did not adequately consider impacts to  
20 critical habitat by (a) failing to analyze how project  
21 operations will impact the value of critical habitat  
22 for the recovery of the smelt and (b) failing to  
23 consider impacts upon the entire extent of known smelt  
24 critical habitat.

25  
26 The Plaintiffs' motions for summary judgment are GRANTED IN  
27 PART AND DENIED IN PART, as delineated above.

28 Based on the legally flawed BiOp, an appropriate interim

1 remedy must be implemented. All parties agree that it is not  
2 prudent to impose a remedy without further input from the  
3 parties. A separate remedies hearing will be scheduled within  
4 thirty days at the parties' mutual convenience.<sup>40</sup> During oral  
5 argument, Federal Defendants and Defendant-Intervenors jointly  
6 requested a stay of any order finding the BiOp unlawful to avoid  
7 the draconian consequences of operating the CVP-SWP without a  
8 lawful take limit. Affording all parties the opportunity to  
9 participate in a remedies hearing will not jeopardize the species  
10 or the public interest during interim operation of the projects.  
11 Plaintiffs did not object to such an approach.

12 A Scheduling Conference is set for May 30, 2007, at 8:45  
13 a.m. in Courtroom 3 to afford the parties time for discussions to  
14 set a remedies hearing, and to consider the entry of a stay, if  
15 necessary.

16 Plaintiffs shall submit a form of order on the motions for  
17 summary judgment consistent with this decision within five (5)  
18 days following service of this decision.

19  
20 IT IS SO ORDERED.

21 **Dated: May 25, 2007**

**/s/ Oliver W. Wanger**  
**UNITED STATES DISTRICT JUDGE**

22  
23  
24  
25  
26 \_\_\_\_\_  
27 <sup>40</sup> The parties stated that they may be able to reach an  
28 agreement as to interim remedies, avoiding the need for a  
remedies hearing.