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UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF CALIFORNIA

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| DELTA SMELT CONSOLIDATED CASES | 1:09-CV-1053 OWW DLB |
| SAN LUIS & DELTA-MENDOTA WATER AUTHORITY, <i>et al.</i> v. SALAZAR, <i>et al.</i> | MEMORANDUM DECISION AND ORDER RE SAN LUIS PLAINTIFFS' MOTIONS TO AUGMENT (DOC. 134) AND |
| STATE WATER CONTRACTORS v. SALAZAR, <i>et al.</i> | SUPPLEMENT (DOC. 139); AND STANISLAUS RIVER PLAINTIFFS' MOTION TO AUGMENT THE |
| COALITION FOR A SUSTAINABLE DELTA, <i>et al.</i> v. UNITED STATES FISH AND WILDLIFE SERVICE, <i>et al.</i> | ADMINISTRATIVE RECORD (145) |
| METROPOLITAN WATER DISTRICT v. UNITED STATES FISH AND WILDLIFE SERVICE, <i>et al.</i> | |
| STEWART & JASPER ORCHARDS <i>et al.</i> v. UNITED STATES FISH AND WILDLIFE SERVICE. | |

I. INTRODUCTION

Before the court for decision are three motions concerning the Administrative Record ("AR"):

- San Luis & Delta-Mendota Water Authority, Westlands Water District, State Water Contractors, Metropolitan Water District of Southern California, Kern County Water Agency, Coalition for a Sustainable Delta, Oakdale Irrigation District, South San Joaquin Irrigation District and Stockton

1 East Water District (collectively, "South Delta Plaintiffs")
2 seek to supplement the AR with 41 documents. Docket 140.
3 South Delta Plaintiffs maintain that some of these documents
4 were improperly excluded from the AR (including documents
5 cited by water users in comment letters; comments, reports,
6 and studies submitted to Federal Defendants by the
7 Department of Water Resources ("DWR"); and documents cited
8 in the consultation history). South Delta Plaintiffs seek
9 to augment the record with certain additional documents
10 under several of the recognized exceptions to the record
11 review rule. Federal Defendants have agreed to supplement
12 the record with Documents 15-20 and 22 from this request,
13 but oppose supplementation as to the remaining documents.

- 14 • Stockton East Water District, Oakdale Irrigation District,
15 and South San Joaquin Irrigation District ("Stanislaus River
16 Plaintiffs") seek to supplement the AR with certain
17 additional documents enumerated in Tables A-E attached to
18 their motion. Docket 146. The Stanislaus River Plaintiffs
19 incorporate the legal arguments of the South Delta
20 Plaintiffs. Federal Defendants have agreed to augment the
21 record with all but 7 of the Documents listed in Table E.
22 • The South Delta Plaintiffs also seek to augment the AR with
23 64 documents withheld under various claims of privilege.
24 See Docket 135. In its opposition, the National Marine
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1 Fisheries Service ("NMFS") withdrew its privilege claims as
2 to Documents 24-59, but opposes augmentation as to the
3 remaining documents.

4 The parties agreed to submit these motions on the papers.

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6 II. ANALYSIS

7 A. Motions to Supplement.

8 1. Legal Framework.

9 The APA limits the scope of judicial review to the
10 administrative record. 5 U.S.C. § 706 (directing the court to
11 "review the whole record or those parts of it cited by a
12 party."). The administrative record is "not necessarily those
13 documents that the agency has compiled and submitted as 'the'
14 administrative record." *Thompson v. U.S. Dept. of Labor*, 885
15 F.2d 551, 555 (9th Cir. 1989). Rather, "[t]he whole record"
16 includes everything that was before the agency pertaining to the
17 merits of the decision." *Portland Audubon Soc'y v. Endangered*
18 *Species Comm.*, 984 F.2d 1534, 1548 (9th Cir. 1993). "The 'whole'
19 administrative record, therefore, consists of all documents and
20 materials directly or indirectly considered by agency decision-
21 makers and includes evidence contrary to the agency's position."
22 *Thompson*, 885 F.3d at 555 (emphasis added).

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25 An incomplete record must be viewed as a fictional
26 account of the actual decisionmaking process. When it
27 appears the agency has relied on documents or materials
not included in the record, supplementation is
appropriate.

28 *Portland Audubon*, 984 F.2d at 1548 (internal quotations and

1 citations omitted); *see also Asarco, Inc. v. U.S. Environmental*
2 *Protection Agency*, 616 F.2d 1153, 1160 (9th Cir. 1980) ("A
3 satisfactory explanation of agency action is essential for
4 adequate judicial review, because the focus of judicial review is
5 not on the wisdom of the agency's decision, but on whether the
6 process employed by the agency to reach its decision took into
7 consideration all the relevant facts.").

9 However, the record does not include "every scrap of paper
10 that could or might have been created" on a subject. *TOMAC v.*
11 *Norton*, 193 F. Supp. 2d 182, 195 (D.D.C. 2002).

12 A broad application of the phrase "before the agency"
13 would undermine the value of judicial review:
14 Interpreting the word "before" so broadly as to
15 encompass any potentially relevant document existing
16 within the agency or in the hands of a third party
17 would render judicial review meaningless. Thus, to
18 ensure fair review of an agency decision, a reviewing
19 court should have before it neither more nor less
20 information than did the agency when it made its
21 decision.

22 *Pac. Shores Subdivision v. U.S. Army Corps of Eng'rs*, 448 F.
23 Supp. 2d 1, 5 (D.D.C. 2006) (internal citations and quotations
24 omitted). The record certainly need not include documents that
25 became available after the agency's decision had already been
26 made ("post-decisional" documents). *See Vermont Yankee Nuclear*
27 *Power Corp. v. NRDC*, 435 U.S. 519, 555 (1978) (judicial review is
28 "limited [] by the time at which the decision was made....");
Karuk tribe v. U.S. Forest Serv., 379 F. Supp. 2d 1071, 1090
(N.D. Cal. 2005) (court "may not consider information created

1 during the litigation that was not available at the time the
2 [agency] made its decision") (citations omitted).

3
4 2. Presumption of Regularity.

5 An agency's designation and certification of the AR is
6 entitled to a presumption of regularity. *McCrary v. Gutierrez*,
7 495 F. Supp. 2d 1038, 1041 (N.D. Cal. 2007) (citing *Bar MK Ranches*
8 *v. Yuetter*, 994 F.2d 735, 740 (10th Cir. 1993)). Absent "clear
9 evidence to the contrary" a court must presume that an agency has
10 "properly discharged [its] official duties." *United States v.*
11 *Chemical Foundation, Inc.*, 272 U.S. 1, 14-15 (1926); *see also Bar*
12 *MK Ranches*, 994 F.2d at 73-40 (while the agency "may not
13 unilaterally determine what constitutes the administrative
14 record" the courts "assume[] the agency properly designated the
15 [AR] absent clear evidence to the contrary").

17 Plaintiffs bear the burden of overcoming this presumption.
18 *See id.*; *Glasser v. NMFS*, 2008 WL 114913, *1 (W.D. Wash. Jan. 10
19 2008) (plaintiffs seeking to supplement the AR must present "clear
20 evidence sufficient to overcome the presumption of administrative
21 regularity...."). Specifically, Plaintiffs must present clear
22 evidence that the existing AR is so inadequate that it will
23 frustrate judicial review. *Ryback v. EPA*, 904 F.2d 1276, 1296
24 n.25 (9th Cir. 1990) (denying motion to supplement where "original
25 record [] adequately explains the basis of [the agency's]
26 decision and demonstrates that the [agency] considered the
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1 relevant factors").

2 Plaintiffs do not dispute the applicability of this
3 presumption and that they bear the burden of overcoming it. See
4 Docket 140 at 8. Instead, Plaintiffs maintain that, "[h]ere, it
5 is clear that the NMFS Record was not properly assembled." *Id.*
6 Plaintiffs observe that Federal Defendants have already submitted
7 five versions of the NFMS record, twice because they failed to
8 include thousands of documents. *Id.* Moreover, Plaintiffs assert
9 that the index to the NMFS AR is "riddled with inaccuracies and
10 misnumbering..." *Id.* This, Plaintiffs suggest, is sufficient
11 to overcome the presumption of regularity.
12

13 It is neither irregular nor particularly surprising that in
14 this complex case, brought on an expedited basis due to the
15 urgent nature of Plaintiffs' requests for relief, some documents
16 that belong in the AR were inadvertently omitted. The parties
17 have had to communicate and cooperate with each other extensively
18 to clarify the AR's content, and some technical inaccuracies in
19 the AR's index have been discovered. Plaintiffs have not
20 presented evidence sufficient to overcome the presumption of
21 regularity. It is necessary, then, to examine Plaintiffs'
22 specific contentions in detail to determine whether they have
23 otherwise met their burden as to specific categories of
24 documents.
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1 3. South Delta Plaintiffs' Motion to Supplement

2 a. Documents Plaintiffs' Claim Were Improperly
3 Excluded From the Record.

4 (1) Scientific Reports and Peer-Reviewed Articles
5 Cited To Federal Defendants By Water Users
6 (Documents 1-14).

7 The South Delta Plaintiffs seek to supplement the AR with
8 Documents 1-14, scientific reports and peer-reviewed articles
9 cited to NMFS for its consideration in the course of its
10 preparation of the 2009 BiOp. Documents 4-6, 10, 11, are reports
11 and articles referenced by a September 24, 2008 comment letter
12 sent by the San Luis & Delta-Mendota Water Authority
13 ("Authority") and the State Water Contractors ("SWC") to Federal
14 Defendants. The letter was included in the administrative
15 record. Although some of the cited references are included in
16 the AR, Documents 4-6, 10, and 11 were omitted.

17 Documents 1-3, 7-9, and 12-14 were on a reference list
18 attached to a May 27, 2009 letter sent by the Authority and the
19 SWC to NMFS with comments on the draft salmon biological opinion
20 dated December 11, 2008. This comment letter was included in the
21 administrative record, as were some of the listed references, but
22 Documents 1-3, 7-9, and 12-14 were excluded.

23 Plaintiffs assert that each of these documents should be
24 added to the record because the document was "cited to NMFS
25 before the 2009 BiOp was issued in comment letters that the
26 Federal Defendants have included in the administrative record."
27 Federal Defendants have included in the administrative record."
28

1 Docket 140 at 8-9.

2 There is ample authority supporting the proposition that the
3 agency must consider relevant data or reports presented to it
4 prior to completion of a biological opinion. See *Natural Res.*
5 *Def. Council v. Kempthorne*, 506 F. Supp. 2d 322, 366-67 (E.D.
6 Cal. 2007) (holding that the Service was required to consider
7 species' population abundance data presented to it one week
8 before completion of the biological opinion); see also *Grand*
9 *Canyon Trust v. U.S. Bureau of Reclamation*, 2009 WL 941341, at
10 *4-*5 (D. Ariz. Apr. 6, 2009) (holding agency must consider
11 relevant report presented to it two weeks before completion of
12 the biological opinion).
13

14 Plaintiffs' assert that *Kempthorne* and *Grand Canyon Trust*
15 stand for the proposition that any document placed before the
16 agency prior to the issuance of the BiOp must be included in the
17 AR. This is not the law. For example, in *Defenders of Wildlife*
18 *v. Dalton*, 24 C.I.T 1116, 2000 WL 1562928, at *1120-21 (C.I.T.
19 2000), the Court of International Trade refused to supplement the
20 administrative record with attachments to comment letters absent
21 evidence that those attachments were considered either directly
22 or indirectly by the relevant decisionmakers. Plaintiffs point
23 to no absolutely no authority that requires an agency to track
24 down documents referenced in a comment letter but not attached
25 thereto. This would be an unworkable rule, as it would permit a
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1 party to force into the record any number of references,
2 regardless of relevance, simply by attaching to a comment letter
3 a list of references on a particular subject.

4 Plaintiffs' request to supplement the record with Documents
5 1-14 on the ground that the documents were referenced in comment
6 letters is DENIED.
7

8 (2) Documents Referenced in the Consultation
9 History (Document 21).

10 Plaintiffs seek to supplement the record with Document 21, a
11 compilation of declarations from *PCFFA v. Gutierrez*, 1:06-cv-245
12 OWW (E.D. Cal.). These declarations are referenced at page 33 of
13 the 2009 Salmonid BiOp, in a section of the BiOp entitled
14 "consultation history," which indicates that the declarations
15 were considered by the agency in preparing the BiOp.
16

17 This document is NMFS' Opinion on the proposed action,
18 in accordance with section 7 of the Endangered Species
19 Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.).
20 The request for formal consultation was received on
21 October 1, 2008. This final Opinion supersedes the 2004
22 CVP/SWP operations Opinion. This Opinion is based on:
23 (1) the reinitiation package provided by Reclamation,
24 including the CVP/SWP operations BA, received by NMFS
25 on October 1, 2008; (2) the supplemental analysis of
26 effects on the proposed critical habitat of Southern
27 DPS of green sturgeon and supplemental information
28 regarding the EFH assessment on fall-run; (3) other
supplemental information provided by Reclamation; (4)
declarations submitted in court proceedings pursuant to
Pacific Coast Federation of Fishermen Association
(PCFFA) et al. v. Gutierrez et al.; and (5) scientific
literature and reports. A complete administrative
record of this consultation is on file at the NMFS,
Sacramento Area Office.

BiOp at 33 (emphasis added).

Federal Defendants nevertheless oppose supplementation of

1 the record with these declarations:

2 The product of litigation, these declarations have no
3 place in the agencies' consideration of the "best
4 available science." The factual matters discussed in the
5 BiOp and the current record and Plaintiffs do not even
6 attempt to represent to the contrary. To the extent a
party seeks to rely on these declarations, they must
submit a request for judicial notice as is frequently
done in this ongoing litigation.

7 Docket 227 at 12.

8 Federal Defendants' position, taken in the context of
9 litigation, is directly contradicted by the text of the BiOp.
10 For this reason, and because the declarations would be subject to
11 judicial notice in any event, Plaintiffs' motion to supplement
12 the AR with Document 21 is GRANTED.
13

14 b. Documents Plaintiffs Seek to Introduce Under One
15 of the Exceptions to the Record Review Rule.

16 In addition to permitting supplementation with documents
17 that were part of the "whole record" but were excluded from the
18 AR, the district court may also consider extra-record materials
19 in an APA case under four narrow exceptions:

20 (1) when it needs to determine whether the agency has
21 considered all relevant factors and has explained its
22 decision;

23 (2) when the agency has relied upon documents or
materials not included in the record;

24 (3) when it is necessary to explain technical terms or
25 complex matters; and

26 (4) when a plaintiff makes a showing of agency bad
faith.

27 *Southwest Center for Biological Diversity v. United States Forest*
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1 *Service*, 100 F.3d 1443, 1450 (9th Cir. 1996). However, before
2 extra-record material may be considered under any of these
3 exceptions, a plaintiff must first make a showing that the record
4 is inadequate. *Animal Defense Council v. Hodel*, 840 F.2d 1432,
5 1437 (9th Cir. 1988) (review of extra-record evidence
6 inappropriate where plaintiff "makes no showing that the district
7 court needed to go outside the administrative record to determine
8 whether the [agency] ignored information").

9
10 Plaintiffs seek to supplement the record with certain
11 documents they contend fall within these recognized exceptions.

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13 (1) Documents Pertaining to "Other Stressors."

14 (a) Documents Pertaining to Predators
15 (Documents 1, 4, 9, and 39-41).

16 Plaintiffs seek to supplement the record with Documents 1,
17 4, and 9 to "demonstrate the failure on the part of NMFS to give
18 appropriate consideration to the prevalence of centrarchids,
19 particularly the largemouth bass, in the Delta, and the degree to
20 which their predation on migrating salmon has compromised certain
21 salmonid ESUs as a result." Docket 263 at 6.

22 Federal Defendants maintain that Documents 1 and 9 are
23 cumulative of the discussion that is contained in the BiOp
24 regarding predation and nonnative species. *Id.* at 10-11, n. 4
25 (citing BiOp at 146-148, 154, 207, 215, 347-350, 374). The cited
26 portions of the BiOp discuss, among other things, predation
27 patterns in various habitat and geographic locations and the
28

1 effect of water development activities on predation rates.

2 Plaintiffs offer Document 1, an article published by Lenny
3 Grimaldo, et al., which found that marsh edge habitats supported
4 a prominent abundance of centrarchids, a family of freshwater
5 fish to which the largemouth bass belongs. Plaintiffs argue that
6 "[a]llthough the BiOp briefly mentions the fact that vegetated
7 channels provide coverage to largemouth bass (BiOp at 374), it
8 completely fails to consider Grimaldo's key observation regarding
9 the prevalence of largemouth bass in these vegetated corridors
10 and the impact of these largemouth bass on salmon migrating
11 through these corridors." Docket 263 at 6. But, Plaintiffs
12 misapply the "relevant factors" exception. Document 1 does not
13 raise an entirely new factor that Federal Defendants failed to
14 consider. Rather, it raises nuanced points about predation. The
15 exceptions to the record review rule, including the "relevant
16 factors" exception, must be interpreted narrowly. *See Ranchers*
17 *Cattlemen Action Legal Fund United Stockgrowers of Am. v. U.S.*
18 *Dept. of Agric.*, 499 F.3d 1108, 1117 (9th Cir. 2007).

19 Accordingly, the "relevant factors" exception only applies when
20 Federal Defendants fail to consider a general subject matter that
21 is demonstrably relevant to the outcome of the agency's decision,
22 not when specific hypotheses and/or conclusions are omitted from
23 consideration. To hold otherwise would allow Plaintiffs to drive
24 a truck through what is supposed to be a narrow exception to the
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1 record review rule.

2 The same applies to Document 9, an article authored by Mike
3 Chotowski, currently with the Bureau of Reclamation, which found
4 that nonnative centrarchids, including largemouth bass, dominate
5 vegetated habitats of the Delta. Plaintiffs maintain that the
6 BiOp should have, but did not, consider the implications of
7 largemouth bass abundance on salmon populations. Document 9
8 merely offers a nuanced point about predator populations; it does
9 not offer an entirely new consideration.
10

11 Likewise, Document 4, an article prepared by William J.
12 Kimmerer in 2001 that discusses population dynamics of the
13 striped bass, another known predator of salmon, does not point to
14 an entirely new "factor" Federal Defendants neglected to
15 consider. The BiOp discusses striped bass predation of salmon,
16 BiOp at 147, 374. That there is no specific discussion of
17 striped bass abundance does not require the conclusion that
18 Federal Defendants entirely failed to consider a relevant factor.
19

20 The same conclusion applies to Documents 39 and 40.

- 21
- 22 • Document 39 is a 1997 telemetry study by Gingras and
23 McGee, which studied movements of striped bass through the
24 radial gates at Clifton Court Forebay to determine the
25 feasibility of predator removal as a method to decrease
26 pre-screen loss of fish in CCF.
 - 27 • Document 40, cited in Document 39, is a 1990 study by Kano
28 on the occurrence and abundance of predator fish in CCF,
which discussed flow velocity in CCF and its effect on
emigration of predators from CCF and found, among other
things, predator emigration to be greater than previously
assumed, resulting in overestimates of predators and their
threat to listed species.

1 Document 41 is the final version of a draft study on
2 quantification of pre-screen loss of juvenile steelhead in
3 Clifton Court Forebay already in the record. AR 00112850-
4 00113074. Plaintiffs maintain that Document 41 should have been
5 included in the record because NMFS knew by April 17, 2009 that
6 the final report was available. AR 00086690. Critically, the
7 final study corrected an error in the draft report regarding how
8 the equation for pre-screen loss was documented. Nevertheless,
9 the relevant factors exception cannot be used to supplement the
10 record with this document. A final draft of a study already
11 considered by Federal Defendants cannot, *ipso facto*, direct
12 Federal Defendants' attention to an entirely new factor.

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15 *Arguendo*, these studies may represent the "best available
16 science" regarding the impacts of predation on salmonids, such
17 that by failing to consider such evidence NMFS acted arbitrarily
18 and/or capriciously. Plaintiffs, however, do not offer these
19 documents for that purpose.

20 The request to supplement the record with Documents 1, 4, 9
21 and 39-41 is DENIED WITHOUT PREJUDICE to a showing, supported by
22 expert opinion, that these documents are best available science
23 that was ignored or given insufficient weight.
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25 (b) Documents Pertaining to Pesticides
26 (Documents 2 and 24-31).

27 Plaintiffs offer Documents 2 and 24-31, which concern the
28 impacts of pesticides on salmonids. Plaintiffs acknowledge that

1 the BiOp discusses pesticides, but maintain that the BiOp "vastly
2 understates the significance of the common pesticides and
3 herbicides on the species." Docket 263 at 8 (citing BiOp at 91,
4 128, 130-33, 139-43, 197, 446, 518, 558, 629 as examples of how
5 the BiOp acknowledges the presence of contaminants and adverse
6 impacts that may result from exposure to contaminants, and BiOp
7 at 467, 499, 547, 554, 567, as examples of where the BiOp
8 attempts to "place blame for exposure to contaminants on CVP/SWP
9 operations").

11 Document 2 is a NOAA Fisheries 2008 biological opinion on
12 the Environmental Protection Agency's Registration of Pesticides
13 containing Chlorpyrifos, which reaches a jeopardy determination
14 ("Chlorpyrifos BiOp"). Federal Defendants argue that Document 2
15 is "cumulative" of the BiOp's general references to pesticides.
16 Document 227 at 12. Plaintiffs respond that the jeopardy
17 determination in Document 2 is a relevant factor that NMFS failed
18 to consider in its analysis:

20 Nowhere does the 2009 NMFS BiOp acknowledge NMFS's own
21 prior conclusions that Chlorpyrifos, Diazinon and
22 Malathion have harmed the listed species, are likely to
23 jeopardize the winter-run and spring-run Chinook salmon
and Central Valley Steelhead, and are likely to result
in the destruction or adverse modification of critical
habitat of these species.

24 Document 263 at 8.

25 This argument touches upon an issue that goes to the heart
26 of many of Plaintiffs' merits arguments. Plaintiffs suggest that
27 the BiOp's own jeopardy determination regarding the impacts of
28

1 coordinated operations on salmonids did not sufficiently consider
2 the detrimental impacts of other "relevant factors" on the
3 salmonids. That another stressor was found to jeopardize
4 salmonids does not necessarily undermine the jeopardy conclusion
5 in the BiOp. Rather, the BiOp must support its conclusions
6 regarding the impact to the species caused by coordinated
7 operations. Moreover, so long as pesticides are not entirely
8 omitted (or are so cursorily considered as to be effectively
9 omitted) from the analysis, additional information on the impact
10 of pesticides cannot come in under the relevant factors
11 exception. If these documents establish that NMFS acted
12 arbitrarily and capriciously by effectively ignoring a
13 substantial factor, this must be demonstrated by expert opinion.
14
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16 The same conclusion applies to Documents 24-31. Plaintiffs
17 argue that these documents "fill gaps in NMFS's reasoning
18 regarding specific pesticides or specific sources of exposure not
19 covered in the BiOp," but do no more than roughly summarize the
20 contents of these Documents as follows:

21 Documents 24 - 29 are scientific studies, all but one
22 of which were peer-reviewed and published in scientific
23 journals, which evaluate the harmful effects from
24 specific pesticides or specific sources within the
25 Delta. See Docs. 24 (impacts of pyrethroids from
26 Sacramento urban drainage water), 25 (impacts of low
27 levels of pesticides on immune systems), 26 (impacts of
28 pyrethroids from urban creeks in the Sacramento area),
29 27 (impacts of pesticides in the Yolo Bypass), 28
30 (impacts of pesticides and herbicides throughout
31 salmonid habitat), 29 (pesticide impacts transferred
32 from parent to progeny); see also Docs. 30 and 31 (both
33 addressing effects of ammonia on food availability).
34 The 2009 BiOp does not evaluate these effects or

1 quantify them as part of the baseline. Given NMFS's
2 jeopardy determination for pesticides, this body of
3 materials either must have been intentionally omitted
4 from the 2009 BiOp record, or recklessly overlooked and
5 not used in its analysis. Admission of the documents
6 is necessary to show the relevant factors and best
7 available science that NMFS ignored without
8 explanation.

9 Doc. 140 at 16. It is Plaintiffs' burden to demonstrate that the
10 existing record is insufficient. Given that the BiOp does
11 discuss the impacts of pesticides on salmonids, these general
12 descriptions coupled with the general assertion that they "fill
13 gaps" in the record is insufficient.

14 Alternatively, Plaintiffs argue that Documents 2 and 24-31
15 are "necessary to explain the complex issue of pesticide and
16 ammonia impacts to the listed species" and that "these studies
17 explain the manner and magnitude of impacts from a major stressor
18 to the listed species." Doc. 263 at 8. But, the BiOp does
19 discuss the effect of ammonia on salmonids. See BiOp at 157
20 (discussing impact of ammonia from the City of Stockton's
21 Wastewater Treatment Plant on dissolved oxygen levels); 446
22 (noting that agricultural ammonia releases may affect salmonid
23 habitat). Plaintiffs' suggested additions to the record do not
24 suggest new relevant factors. Rather, Plaintiffs suggest that
25 Federal Defendants did not give ammonia sufficient weight. These
26 documents do not fall within the "relevant factors" exception.

27 The request to supplement the record with Documents 2 and
28 24-31 is DENIED WITHOUT PREJUDICE.

1 (c) Hatcheries (Documents 13, 34, and 35)

2 Documents 13, 34, and 35 discuss the effects interbreeding
3 of hatchery salmon with wild salmon have on the fitness of wild
4 fish. The BiOp discusses hatchery impacts on genetic diversity,
5 BiOp at 87-88, 95, 109, the contribution of hatcheries to the
6 collapse of the fall run, *id.* at 142, as well as an entire
7 section entitled "Hatchery Operation and Practices," which
8 discusses a number of impacts:
9

10 Five hatcheries currently produce Chinook salmon in the
11 Central Valley, and four of these also produce
12 steelhead. Releasing large numbers of hatchery fish can
13 pose a threat to wild Chinook salmon and steelhead
14 stocks through genetic impacts, competition for food
15 and other resources between hatchery and wild fish,
16 predation of hatchery fish on wild fish, and increased
17 fishing pressure on wild stocks as a result of hatchery
18 production (Waples 1991). The genetic impacts of
19 artificial propagation programs in the Central Valley
20 are primarily caused by straying of hatchery fish and
21 the subsequent interbreeding of hatchery fish with wild
22 fish. In the Central Valley, practices such as
23 transferring eggs between hatcheries and trucking
24 smolts to distant sites for release contribute to
25 elevated straying levels [U.S. Department of the
26 Interior (DOI) 1999]. For example, Nimbus Hatchery on
27 the American River rears Eel River steelhead stock and
28 releases these fish in the Sacramento River basin. One
of the recommendations in the Joint Hatchery Review
Report (NMFS and CDFG 2001) was to identify and
designate new sources of steelhead brood stock to
replace the current Eel River origin brood stock.

Hatchery practices as well as spatial and temporal
overlaps of habitat use and spawning activity between
spring- and fall-run fish have led to the hybridization
and homogenization of some subpopulations (CDFG 1998).
As early as the 1960s, Slater (1963) observed that
spring-run and early fall-run were competing for
spawning sites in the Sacramento River below Keswick
Dam, and speculated that the two runs may have
hybridized. Spring-run from the FRFH have been
documented as straying throughout the Central Valley
for many years (CDFG 1998), and in many cases have been
recovered from the spawning grounds of fall-run, an
indication that FRFH spring-run may exhibit fall-run

1 life history characteristics. Although the degree of
2 hybridization has not been comprehensively determined,
3 it is clear that the populations of spring-run spawning
in the Feather River and counted at RBDD contain
hybridized fish.

4 The management of hatcheries, such as Nimbus Fish
5 Hatchery and FRFH, can directly impact spring-run and
6 steelhead populations by oversaturating the natural
7 carrying capacity of the limited habitat available
8 below dams. In the case of the Feather River,
9 significant redd superimposition occurs in-river due to
10 hatchery overproduction and the inability to physically
11 separate spring-run and fall-run adults. This
concurrent spawning has led to hybridization between
the spring-run and fall-run in the Feather River. At
Nimbus Hatchery, operating Folsom Dam to meet
temperature requirements for returning hatchery fall-
run often limits the amount of water available for
steelhead spawning and rearing the rest of the year.

12 The increase in Central Valley hatchery production has
13 reversed the composition of the steelhead population,
14 from 88 percent naturally-produced fish in the 1950s
15 (McEwan 2001) to an estimated 23 to 37 percent
16 naturally-produced fish currently (Nobriga and Cadrett
17 2003). The increase in hatchery steelhead production
18 proportionate to the wild population has reduced the
viability of the wild steelhead populations, increased
the use of out-of-basin stocks for hatchery production,
and increased straying (NMFS and CDFG 2001). Thus, the
ability of natural populations to successfully
reproduce and continue their genetic integrity likely
has been diminished.

19 The relatively low number of spawners needed to sustain
20 a hatchery population can result in high harvest-to-
21 escapements ratios in waters where fishing regulations
22 are set according to hatchery population. This can lead
to over-exploitation and reduction in the size of wild
populations existing in the same system as hatchery
populations due to incidental bycatch (McEwan 2001).

23 Hatcheries also can have some positive effects on
24 salmonid populations. Winter-run produced in the LSNFH
25 are considered part of the winter-run ESU. Spring-run
26 produced in the FRFH are considered part of the spring-
27 run ESU. Artificial propagation has been shown to be
28 effective in bolstering the numbers of naturally
spawning fish in the short term under specific
scenarios. Artificial propagation programs can also aid
in conserving genetic resources and guarding against
catastrophic loss of naturally spawned populations at
critically low abundance levels, as was the case with
the winter-run population during the 1990s. However,

1 relative abundance is only one component of a viable
2 salmonid population.

3 BiOp at 143-44.

4 Document 13 is a 2005 editorial by Brown entitled
5 "Understanding Central valley Chinook salmon and steelhead: it's
6 time to get off the dime," that concludes "we have a poor
7 understanding of the effects of [] hatcheries on naturally
8 spawning salmonids," and suggests a comprehensive salmon research
9 and monitoring program is necessary. Plaintiffs fail to explain
10 how this editorial demonstrates that Federal Defendants have
11 failed to consider a relevant factor.

12 Document 34 is a 2007 study by Araki, et al., entitled
13 "Genetic effects of captive breeding cause a rapid, cumulative
14 fitness decline in the wild," which found a 37.5% fitness decline
15 per captive-reared generation, suggesting even a few generations
16 of domestication may have negative effects on natural
17 reproduction in the wild. Document 35, a 2004 study by Kostow,
18 entitled "Differences in juvenile phenotypes and survival between
19 hatchery stocks and a natural population provide evidence for
20 modified selection due to captive breeding," found that new
21 hatchery stock and naturally produced fish from the same parent
22 gene pool had significant differences in fitness. Plaintiffs
23 argue that Documents 34 and 35 should be added to the record
24 under the relevant factors exception because they "quantify the
25 effect of hatchery interbreeding on wild fish in a manner that
26
27
28

1 has not been conducted in the past." It does not appear that the
2 BiOp has discussed the specific topic raised in these papers:
3 the effect of hatchery stock on salmonid fitness. This issue is
4 arguably distinct enough from the effect of hatchery stock on
5 genetic diversity to be considered a separate factor. Documents
6 34 and 35 are admissible for this purpose only.
7

8 Plaintiffs also suggest that these Documents are admissible
9 under the exception that permits extra-record evidence when
10 necessary to aid the Court in understanding complex information
11 But, the BiOp discusses the effects of hatchery fish on wild fish
12 in detail. Plaintiffs have not demonstrated why this discussion
13 is insufficient, with the exception of the possible gap in
14 discussion of the impact of hatchery fish on salmonid fitness.
15

16 Plaintiffs' request to supplement the record with Document
17 13 is DENIED. Plaintiffs request to supplement the record with
18 Documents 34 and 35 is GRANTED. Documents 34 and 35 may be used
19 to demonstrate that Federal Defendants failed to discuss the
20 effect of hatchery stock on salmonid fitness.
21

22 (d) Ocean Conditions (Documents 10, 11, 12,
23 and 23).

24 Plaintiffs next offer Documents 10-12 and 23, which concern
25 the impact of ocean conditions on salmonids. The BiOp discusses
26 the effects of ocean conditions in several places, most notably
27 at pages 149-153, in a section entitled "Ocean Productivity":
28

1 The time at which juvenile salmonids enter the marine
2 environment marks a critical period in their life
3 history. Studies have shown the greatest rates of
4 growth and energy accumulation for Chinook salmon occur
5 during the first 1 to 3 months after they enter the
6 ocean (Francis and Mantua 2003, MacFarlane et al.
7 2008). Emigration periods and ocean entry can vary
8 substantially among, and even within, races in the
9 Central Valley. For example, winter-run typically rear
10 in freshwater for 5-9 months and exhibit a peak
11 emigration period in March and April. Spring-run
12 emigration is more variable and can occur in December
13 or January (soon after emergence as fry), or from
14 October through March (after rearing for a year or more
15 in freshwater; CVP/SWP operations BA). In contrast to
16 Chinook salmon, steelhead tend to rear in freshwater
17 environments longer (anywhere from 1 to 3 years) and
18 their period of ocean entry can span many months.
19 Juvenile steelhead presence at Chipps Island has been
20 documented between at least October and July (CVP/SWP
21 operations BA). While still acknowledging this
22 variability in emigration patterns, the general
23 statement can be made that Chinook salmon typically
24 rear in freshwater environments for less than a year
25 and enter the marine environment as subyearlings in
26 late spring to early summer. Likewise, although
27 steelhead life histories are more elastic, they
28 typically enter the ocean in approximately the same
time frame. This general timing pattern of ocean entry
is commonly attributed to evolutionary adaptations that
allow salmonids to take advantage of highly productive
ocean conditions that typically occur off the
California coast beginning in spring and extending into
the fall (MacFarlane et al. 2008). Therefore, the
conditions that juvenile salmonids encounter when they
enter the ocean can play an important role in their
early marine survival and eventual development into
adults.

It is widely understood that variations in marine
survival of salmon correspond with periods of cold and
warm ocean conditions, with cold regimes being
generally favorable for salmon survival and warm ones
unfavorable (Behrenfeld et al. 2006, Wells et al.
2006). Peterson et al. (2006) provide evidence that
growth and survival rates of salmon in the California
Current off the Pacific Northwest can be linked to
fluctuations in ocean conditions. An evaluation of
conditions in the California Current since the late
1970s reveals a generally warm, unproductive regime
that persisted until the late 1990s. This regime has
been followed by a period of high variability that
began with colder, more productive conditions lasting
from 1999 to 2002. In general, salmon populations
increased substantially during this period. However,

1 this brief cold cycle was immediately succeeded by a 4-
2 year period of predominantly warm ocean conditions
3 beginning in late 2002, which appeared to have
4 negatively impacted salmon populations in the
5 California Current (Peterson et al. 2006). Evidence
6 suggests these regime shifts follow a more or less
7 linear pattern beginning with the amount and timing of
8 nutrients provided by upwelling and passing "up" the
9 food chain from plankton to forage fish and eventually,
10 salmon. There are also indications that these same
11 regime shifts affect the migration patterns of larger
12 animals that prey on salmon (e.g., Pacific hake, sea
13 birds) resulting in a "top-down" effect as well
14 (Peterson et al. 2006).

15 Peterson et al. (2006) evaluated three sets of
16 ecosystem indicators to identify ecological properties
17 associated with warm and cold ocean conditions and
18 determine how those conditions can affect salmon
19 survival. The three sets of ecosystem indicators
20 include: (1) large-scale oceanic and atmospheric
21 conditions [specifically, the Pacific Decadal
22 Oscillation (PDO) and the Multivariate ENSO Index]; (2)
23 local observations of physical and biological ocean
24 conditions off northern Oregon (e.g., upwelling, water
25 temperature, plankton species compositions, etc.); and
26 (3) biological sampling of juvenile salmon, plankton,
27 forage fish, and Pacific hake (which prey on salmon).
28 When used collectively, this information can provide a
general assessment of ocean conditions in the northern
California Current that pertain to multi-year warm or
cold phases. It can also be used to develop a
qualitative evaluation for a particular year of the
effect these ocean conditions have on juvenile salmon
when they enter the marine environment and the
potential impact to returning adults in subsequent
years.

1 The generally warmer ocean conditions in the California
2 Current that began to prevail in late 2002 have
3 resulted in coastal ocean temperatures remaining 1-2°C
4 above normal through 2005. A review of the previously
5 mentioned indicators for 2005 revealed that almost all
6 ecosystem indices were characteristic of poor ocean
7 conditions and reduced salmon survival. For instance,
8 in addition to the high sea surface temperatures, the
9 spring transition, which marks the beginning of the
10 upwelling season and typically occurs between March and
11 June, was very late, postponing upwelling until mid-
12 July. In addition, the plankton species present during
13 that time were the smaller organisms with lower lipid
14 contents associated with warmer water, as opposed to
15 the larger, lipid-rich organisms believed to be
16 essential for salmon growth and survival throughout the
17 winter. The number of juvenile salmon collected during

1 trawl surveys was also lower than any other year
2 previously sampled (going back to 1998, Peterson et al.
3 2006). Furthermore, although conditions in 2006
4 appeared to have improved somewhat over those observed
5 in 2005 (e.g., sea surface temperature was cooler, the
6 spring transition occurred earlier, and coastal
upwelling was more pronounced), not all parameters were
necessarily "good." In fact, many of the indicators
were either "intermediate" (e.g., PDO, juvenile Chinook
salmon presence in trawl surveys) or "poor" (e.g.,
copepod biodiversity, Peterson et al. 2006).

7 Updated information provided by Peterson et al. (2006)
8 on the NWFSC Climate Change and Ocean Productivity
9 website shows the transition to colder ocean
10 conditions, which began in 2007, has persisted
11 throughout 2008. All ocean indicators point toward a
12 highly favorable marine environment for those juvenile
13 salmon that entered the ocean in 2008. After remaining
14 neutral through much of 2007, PDO values became
15 negative (indicating a cold California Current) in late
16 2007 and remained negative through at least August,
17 2008, with sea surface temperatures also remaining
18 cold. Coastal upwelling was initiated early and will
19 likely be regarded as average overall. Furthermore, the
20 larger, energy-rich, cold water plankton species have
21 been present in large numbers in 2007 and 2008.
22 Therefore, ocean conditions in the broader California
23 Current appear to have been favorable for salmon
24 survival in 2007 and to a greater extent in 2008, which
25 bodes well for Chinook salmon populations returning in
26 2009 and 2010. These ecosystem indicators can be used
27 to provide an understanding of ocean conditions, and
28 their relative impact on marine survival of juvenile
salmon, throughout the broader, northern portion of the
California Current. However, they may not provide an
accurate assessment of the conditions observed on a
more local scale off the California coast.

Wells et al. (2008a) developed a multivariate
environmental index that can be used to assess ocean
productivity on a finer scale for the central
California region. This index (also referred to as the
Wells Ocean Productivity Index) has also tracked the
Northern Oscillation Index, which can be used to
understand ocean conditions in the North Pacific Ocean
in general. The divergence of these two indices in 2005
and 2006 provided evidence that ocean conditions were
worse off the California coast than they were in the
broader North Pacific region. The Wells et al. (2008a)
index incorporates 13 oceanographic variables and
indices and has correlated well with the productivity
of zooplankton, juvenile shortbelly rockfish, and
common murre production along the California coast
(MacFarlane et al. 2008). In addition to its use as an

1 indicator of ocean productivity in general, the index
2 may also relate to salmon dynamics due to their heavy
3 reliance on krill and rockfish as prey items during
4 early and later life stages. For instance, not only did
5 the extremely low index values in 2005 and 2006
6 correlate well with the extremely low productivity of
7 salmon off the central California coast in those years,
8 but the index also appears to have correlated well with
9 maturation and mortality rates of adult salmon from
10 1990-2006 in that region (Wells and Mohr 2008).
11 Although not all of the data are currently available to
12 determine the Wells et al. (2008a) index values for
13 2007 and 2008, there is sufficient information to
14 provide an indication of the likely ocean conditions
15 for those 2 years, which can then be compared to 2005
16 and 2006.

17 A review of the available information suggests ocean
18 conditions in 2007 and 2008 have improved substantially
19 over those observed in 2005 and 2006. For instance, the
20 spring transition, which marks the beginning of the
21 upwelling season and typically occurs between March and
22 June, was earlier in 2007 and 2008 compared to 2005 and
23 2006. An early spring transition is often indicative of
24 greater productivity throughout the spring and summer
25 seasons (Wells and Mohr 2008, Peterson et al. 2006).
26 Coastal upwelling, the process by which cool, nutrient
27 rich waters are brought to the surface (perhaps the
28 most important parameter with respect to plankton
productivity), was also above average in 2007 and 2008.
Moreover, coastal sea surface temperature and sea level
height (representative of the strength of the
California current and southern transport) values were
also characteristic of improved ocean productivity
(Wells and Mohr 2008). Thus, contrary to the poor ocean
conditions observed in the spring of 2005 and 2006, the
Wells et al. (2008a) index parameters available at this
time indicate spring ocean conditions have been
generally favorable for salmon survival off California
in 2007 and 2008.

In contrast to the relatively "good" ocean conditions
that occurred in the spring, the Wells et al. (2008a)
index values for the summer of 2007 and 2008 were poor
in general, and similar to those observed in 2005 and
2006. Summer sea surface temperature followed a similar
pattern in both 2007 and 2008, starting out cool in
June, and then rising to well above average in July
before dropping back down to average in August (Wells
and Mohr 2008). The strong upwelling values observed in
the spring of 2007 and 2008 were not maintained
throughout the summer, and instead dropped to either at
or below those observed in 2005 and 2006. Finally, sea
level height and spring curl values (a mathematical
representation of the vertical component of wind shear

1 which represents the rotation of the vector field),
2 which are negatively correlated with ocean
3 productivity, were both poor (Wells and Mohr 2008).
4 Therefore, during the spring of 2007 and 2008, ocean
5 conditions off California were indicative of a
6 productive marine environment favorable for ocean
7 salmon survival (and much improved over 2005 and 2006).
8 However, those conditions did not persist throughout
9 the year, as Wells et al. (2008a) index values observed
10 in the summer of 2007 and 2008 were similar to those
11 experienced in the summer of 2005 and 2006, 2 years
12 marked by extremely low productivity of salmon off the
13 central California coast.

8 Evidence exists that suggests early marine survival for
9 juvenile salmon is a critical phase in their survival
10 and development into adults. The correlation between
11 various environmental indices that track ocean
12 conditions and salmon productivity in the Pacific
13 Ocean, both on a broad and local scale, provides an
14 indication of the role they play in salmon survival in
15 the ocean. Moreover, when discussing the potential
16 extinctions of salmon populations, Francis and Mantua
17 (2003) point out that climate patterns would not likely
18 be the sole cause but could certainly increase the risk
19 of extinction when combined with other factors,
20 especially in ecosystems under stress from humans.
21 Thus, the efforts to try and gain a greater
22 understanding of the role ocean conditions play in
23 salmon productivity will continue to provide valuable
24 information that can be incorporated into the
25 management of these species and should continue to be
26 pursued. However, the highly variable nature of these
27 environmental factors makes it very difficult, if not
28 impossible, to accurately predict what they will be
29 like in the future. Because the potential for poor
30 ocean conditions exists in any given year, and there is
31 no way for salmon managers to control these factors,
32 any deleterious effects endured by salmonids in the
33 freshwater environment can only exacerbate the problem
34 of an inhospitable marine environment. Therefore, in
35 order to ensure viable populations, it is important
36 that any impacts that can be avoided prior to the
37 period when salmonids enter the ocean must be carefully
38 considered and reduced to the greatest extent possible.

24 (footnote omitted).

25 Plaintiffs argue that the BiOp fails to "thoroughly analyze
26 the primary importance of recent ocean conditions on the decline
27 of the listed species." Doc. 263 at 10. Document 10, a 1998
28

1 article by Gustavo A. Bisbal and Willis E. McConnaha, concludes
2 that the ocean, not freshwater, conditions primarily determine
3 overall salmon abundance. Document 11, a 2008 brief by Randy
4 Ericksen, demonstrates that take of Chinook salmon in ocean
5 fisheries is far more significant than take through entrainment.
6 Document 12, a stock assessment and fishery evaluation report
7 prepared by the Pacific Fisheries Management Council in
8 collaboration with scientists from various federal and state
9 agencies, including NMFS, the Southwest Fisheries Science Center,
10 and the California Department of Fish and Game, illustrates the
11 extent to which the ocean environment has been unfavorable to
12 salmon, noting the precipitous decline in sardine, anchovy, and
13 krill populations -- all of which were key prey items of Pacific
14 salmonid during the same years.

15
16
17 The BiOp does address, albeit indirectly, the relative
18 importance of ocean conditions vis-a-vis freshwater conditions by
19 concluding that, because ocean conditions vary from year to year
20 and because there is nothing managers can do to address ocean
21 conditions, the conditions salmonids face before they reach the
22 ocean must be "carefully considered." See BiOp at 152-53 (quoted
23 with emphasis above). Essentially, the BiOp concludes that
24 whether or not ocean conditions are the "primary" cause of
25 salmonid decline is largely irrelevant to an evaluation of
26 whether coordinated project operations cause jeopardy. However,
27
28

1 the BiOp does rely in part on comparisons of export levels at the
2 juvenile stage against escapement from the ocean two years later
3 to justify the imposition of certain export restrictions. BiOp
4 Appendix 5 at 21. Whether reliance on such a comparison is
5 reasonable may turn in part on the relative importance to the
6 population of ocean conditions vis-à-vis freshwater influences at
7 the juvenile stage. The BiOp's failure to address squarely this
8 issue justifies supplementation of the record with Documents 10,
9 11, and 12 under the relevant factors exception.
10

11 Document 23 is a technical memorandum that interprets and
12 explains a critical study by Lindley that is already in the
13 record. Given that the study upon which Document 23 focuses is
14 already in the record, Plaintiffs have not explained why Document
15 23 raises a relevant factor that was not considered or explains
16 complex or technical information. It is Plaintiffs' burden to
17 demonstrate that the existing record is inadequate.
18

19 Plaintiffs' request to supplement the record is GRANTED as
20 to Documents 10, 11, and 12, and DENIED as to 23
21

22 (2) Documents Pertaining to CVP/SWP Operations
23 (Documents 5, 6, and 36).

24 (a) Documents 5 and 6.

25 Document 5 is a 2005 report by Manly for Westlands Water
26 District, entitled "Some further analysis of the Paired Release-
27 Recovery Data." Document 6 is a 2004 report prepared by Newman
28 for FWS, entitled "Assessing an export effect on releases of

1 Chinook salmon smolts from Ryde."

2 Plaintiffs' entire argument for the admission of these
3 documents under one of the exceptions to the record review rule
4 states:

5 [] Documents 5 and 6 are necessary to explain the
6 technical terms and complex subject matter central to
7 Plaintiffs' assertion that the 2009 BiOp fails to
8 rationally relate impacts of the CVP and SWP to
9 population level effects of the endangered and
10 threatened species. Kern County Water Agency's
11 Complaint for Declaratory and Injunctive Relief, 17:6-
12 7, Aug. 26, 2009 (Doc. 1) ("The 2009 BiOp fails to
13 consider available scientific and commercial data
14 suggesting there is little evidence of any association
15 between exports and salmon survival."). Specifically,
16 both documents are necessary to explain the
17 insignificance of any effects on the salmon population
18 from Delta cross-channel operations. Consideration of
19 this literature would prove extremely useful to explain
20 NMFS's overestimation of the risk of direct effects of
21 project operations, and to compare with existing agency
22 analysis to determine whether NMFS in fact included all
23 relevant factors in reaching its jeopardy conclusion.

24 Documents 140 at 20. Plaintiffs' belief that "consideration of
25 this literature would prove extremely useful" is insufficient.

26 The Court is not required to scour the record in support of
27 Plaintiffs' motion to supplement.

28 Plaintiffs' motion to supplement the record with Documents
29 5, 6, and 36 is DENIED.

30 (b) Document 36.

31 Plaintiffs' showing with respect to Document 36, a study
32 dated April 2, 2009, entitled "Estimating survival and migration
33 route probabilities of juvenile Chinook salmon in the Sacramento-
34 San Joaquin River Delta," is more robust. Plaintiffs argue that

1 Document 36 should be admitted under the relevant factors
2 exception because:

3 Document 36 is a study that discusses how movements
4 among, and survival within migration routes interact to
5 influence population-level survival of salmon smolts
6 through the Delta. The study develops a model for the
7 Delta to estimate the probability of juvenile salmon
8 migrating through each of four migration routes and the
9 probability of surviving through each route. The study
10 uses the first available acoustic telemetry data of
11 smolt migration through the Delta and provides the
12 first quantitative glimpse into migration dynamics of
13 juvenile salmon smolts in the Sacramento River and
14 examines how different components interact to affect
15 survival of the population migrating through the Delta.
16 This article is co-authored by a NMFS biologist and was
17 therefore was available to NMFS at the time of the
18 BiOp. In addition, this study uses first available
19 data and for the first time presents quantitative
20 information regarding population level survival through
21 the Delta. This data is not otherwise presented in the
22 AR, but it is important in determining what effects the
23 projects may have on salmon migrating through the
24 Delta. ***

25 Doc. 140 at 19.

26 Plaintiffs emphasize that the copy they submitted as part of
27 their motion to augment was dated April 2, 2009, two months
28 before the BiOp was published. Moreover, two of the seven
authors are NMFS biologists. Federal Defendants maintain that
this study was not available to the agency within a reasonable
time before completion of the BiOp because it was not published
until after January 2010. Plaintiffs have not demonstrated that
this study was before the agency prior to the issuance of the
BiOp.

Plaintiffs alternatively argue that this document "explains
migration routes and timing of migration and therefore aids the

1 Court's understanding of salmon migration." But, Plaintiffs have
2 not demonstrated that the present record insufficiently describes
3 salmon migration.

4 Plaintiffs' request to supplement the AR with Document 36 is
5 DENIED.

6
7 (3) Documents Concerning Biostatistics /
8 Viability Analysis (Documents 3, 7, 8, 14,
9 37, and 38).

10 (a) Best Available Science Argument.

11 Plaintiffs first assert that the administrative record
12 should be supplemented with Documents 3, 7, 8, 14, 37, and 38
13 because "material in those documents represents 'best available
14 science' that was ignored or given insufficient weight by Federal
15 Defendants." In support of this decision, Plaintiffs cite a
16 December 16, 2009 Memorandum Decision in the *Delta Smelt*
17 *Consolidated Cases*, 1:09-CV-00407, Docket 462. That decision
18 explained that expert testimony is required to determine whether
19 a particular study represents "best available science" that was
20 disregarded or given insufficient weight. *See id.* at 14-15. No
21 such expert testimony has been presented as part of Plaintiffs'
22 motion to augment. This is a failure of proof. The motion is
23 DENIED WITHOUT PREJUDICE on this ground.

24
25 (b) Relevant Factors Argument.

26 Plaintiffs next argue that Documents 3, 7, 8, 14, 37, and 38
27 are necessary to demonstrate that Federal Defendants did not
28

1 consider all relevant factors and did not explain their decision.

2 Document 3, is a 2008 analysis of "Chinook prey availability
3 and biological requirements in Coastal Range of Southern
4 Residential re: Supplemental Comprehensive Analysis of Southern
5 Resident killer whales." Without any explanation, Plaintiffs
6 assert that this analysis "demonstrates that Federal Defendants
7 did not consider all relevant factors prior to reaching its
8 jeopardy conclusion with respect to the Southern Resident killer
9 whale." Docket 263 at 12. This is an insufficient showing.

11 Document 7 describes a quantitative modeling approach
12 adopted by the Interior Columbia Technical Recovery Team
13 ("ICTRT") to evaluate productivity and abundance of Columbia
14 River salmonids. Plaintiffs suggest that the record should be
15 supplemented to include Document 7 because NMFS acknowledged in
16 the BiOp the benefit this type of quantitative modeling "towards
17 understanding the relative importance of proposed action-related
18 effects at various life stages on overall abundance," BiOp at 67,
19 yet the BiOp failed to perform any quantitative analysis.

21 Plaintiffs' attempt to admit this document under the "relevant
22 factors" exception is misplaced. The BiOp does acknowledge the
23 value of quantitative population modeling. Whether or not the
24 ICTRT modeling approach represents best available science that
25 could have been applied to the Central Valley salmonids but was
26 not is a separate question. Admissibility of this document must
27

1 be supported by expert testimony. It has not been.

2 Document 8 is the Biological Opinion for the Federal
3 Columbia River Power System. Plaintiffs maintain that "[t]his
4 document demonstrates the appropriate timeline for assessing
5 viability of a subject species, which should be equal to the
6 amount of time for which take coverage or recovery efforts will
7 be provided, in that instance, 24 years." Docket 263 at 14.

8 According to Plaintiffs:

9
10 NMFS applied a long-term, 100-year standard to evaluate
11 extinction risk based on the Viability Salmonid
12 Population ("VSP") framework. BiOp at 42, 51. By
13 using VSP parameters, however, the BiOp erroneously
14 required the Project's effects to meet a more stringent
15 long-term recovery goal, that being if the risk to
16 recovery under baseline and Project conditions is
17 greater than 5 percent over 100 years, the BiOp
18 concludes that the recovery prong cannot be met. This
19 long-term recovery goal is in contrast to similar
20 biological opinions that evaluate recovery over a much
21 shorter time period to be consistent with the legal
22 standard articulated in *National Wildlife Federation v.*
23 *National Marine Fisheries Service*, 524 F.3d 917 (9th
24 Cir. 2007). Document 8 was therefore provided to show
25 that extinction risk is typically considered over a
26 much shorter period than that adopted in the BiOp,
27 typically the length of the take coverage for the
28 proposed action.

20 *Id.* Again, this is a highly technical argument that goes to the
21 use of the best available science. Admissibility of this
22 document must be supported by expert testimony. It has not been.

23 Document 14 is an article by Stephen P. Cramer, which
24 demonstrates that the primary native run of steelhead to the
25 Sacramento Basin, upstream of the Feather River, was summer
26 steelhead, not winter steelhead. Plaintiffs argue that "NMFS'
27 discussion of steelhead completely overlooks this evidence as
28

1 demonstrated by NMFS's...assertion that '[o]nly winter steelhead
2 are currently found in Central Valley rivers and streams.' BiOp
3 at 104." Docket 140 at 21. The BiOp does not discuss the
4 possibility that there may have been or currently may be another
5 run of steelhead present in the upper Sacramento River basin.
6 Although the significance of this failure is far from clear,
7 Document 14 is admissible to demonstrate the BiOp's failure to
8 consider this factor.
9

10 The BiOp concludes that the CVP and SWP operations are
11 likely to jeopardize the existence of the Southern Resident
12 killer whale ("Southern Resident") because the project operations
13 jeopardize the Southern Resident's predominant prey, the Chinook
14 salmon. BiOp at 489, AR 00106569. The BiOp states that from May
15 to September, the Southern Resident's diet consists of 86 percent
16 Chinook salmon and from May to December, their diet consists of
17 69 percent Chinook salmon. BiOp at 163, AR 00106243.
18

19 Document 37, McCluskey 2006, analyzes the relationship
20 between Southern Resident behavior and abundance and prey
21 availability. Plaintiffs offer extensive argument why this study
22 should be admitted to demonstrate that Federal Defendants failed
23 to consider a relevant factor:
24

25 This study is unique due to its analytical approach,
26 level of detail, and the study's extended time frame—
27 all of which yield detailed results that challenge the
28 dominant literature's (i.e. the documents already part
of the NMFS Record) assumptions about Southern Resident
behavior in response to prey availability and may call
into question assumptions (like those made in the BiOp)

1 about Southern Resident dietary requirements during
2 winter months in coastal waters, including those in the
3 action area.

4 McCluskey 2006 examines two distinct lines of inquiry
5 to document the relationship between the Southern
6 Resident and its prey. First, McCluskey 2006 models
7 the space use of Southern Resident SRC and links that
8 movement behavior to variables such as population
9 trends and relative prey availability (salmon).
10 Specifically, McCluskey 2006 documents the results of a
11 series of spatial pattern analytical approaches used to
12 investigate variations in shape and size of pod
13 movement behavior between and within salmon management
14 areas. This line of inquiry yields results that
15 challenge conventional views about the movement
16 behavior of the Southern Resident and, for example,
17 areas with high densities of salmon. McCluskey
18 suggests that these results may indicate that whales do
19 not preferentially occupy areas of higher salmon
20 density and may be distributing themselves based on
21 other factors such as alternative prey species (p. 76).
22 See Final Recovery Plan for the Southern Resident
23 Killer Whales (NMFS 2008) at II-29 (noting McCluskey
24 2006 counters the theory that the Southern Resident
25 seek out and forage in areas in which salmon most
26 commonly occur).

27 McCluskey 2006 also compares trends in Southern
28 Resident abundance to total abundance and escapement of
Pacific salmon. The study compares abundance at
different temporal and spatial scales over a 10-year
period using variables including pod, salmon species,
and time-lag. Again, the study yields new results that
must be accommodated in the broad generalizations about
SRC dietary requirements. For example, McCluskey notes
that, "[c]ontrary to observational and scale sampling
evidence of chinook predation" when escapement data
were used no significant correlations between total
chinook and total Southern Resident were found (p.
100).

The data and analysis presented in McCluskey 2006 is
not found elsewhere in the Record and it provides
critical additional information regarding the Southern
Resident's diet and abundance as it is related to prey
availability, key factors in the BiOp's analysis and
jeopardy conclusion. Furthermore, McCluskey 2006
explains movement behavior of the Southern Resident and
trends in abundance.

Docket 140 at 18. Plaintiffs insist that this document "raises
questions regarding the BiOp's assertions about the Southern

1 Residents' reliance on Chinook salmon." Docket 263 at 15. This
2 is insufficient to justify supplementation under the relevant
3 factors exception. NMFS has a duty to consider the best
4 available science. However, expert testimony is required to
5 demonstrate that Document 37 is best available science that was
6 ignored or given insufficient weight. The motion is DENIED
7 WITHOUT PREJUDICE as to Document 37.
8

9 Document 38, presents a critique of Lindley et al (2007), a
10 document cited numerous times in the BiOp, *see, e.g.*, BiOp at 68,
11 88, 108, 486, and relied upon "to establish the current status of
12 the listed Central Valley salmon and steelhead species," and "to
13 evaluate whether the proposed action does not 'reduce appreciably
14 the likelihood of survival and recovery.'" Lindley et al (2007)
15 directly adopts and applies the criteria from Allendorf et al
16 (1997). Document 38 directly critiques the criteria used in
17 Allendorf (1997) on the ground that these criteria are based on
18 assumptions that are seldom true for Pacific salmon. Plaintiffs
19 maintain that because Document 38 "presents an evaluation of the
20 criteria upon which the BiOp's jeopardy analysis is based, [it's
21 admission] is necessary to determine whether the agency
22 considered all relevant factors. Plaintiffs misapply the
23 relevant factors exception. Document 38 does not point out a
24 factor the BiOp failed to consider. Rather, it raises a
25 scientific dispute over the merits of assumptions made in the
26
27
28

1 BiOp. If expert testimony can establish that Document 38
2 represents the best available science that was ignored or
3 disregarded, it may be considered for that purpose, but it is not
4 admissible under the relevant factors exception. Plaintiffs'
5 alternative argument that Document 38 is admissible as necessary
6 to explain complex scientific information is not supported by any
7 showing that the current record does not sufficiently explain
8 extinction risk and population assessment. Plaintiffs' cannot
9 use this exception to gain admission of otherwise inadmissible
10 documents.
11

12 Plaintiffs' request to supplement the record is DENIED as to
13 Documents 3, 7, 8, 37 and 38 and GRANTED as to Document 14.
14

15 (4) Document Concerning RPA (Document 32).

16 Document 32 is Reclamation's 2009 Technical Memorandum on
17 the Effectiveness of a Non-Physical Fish Barrier at the
18 Divergence of the Old and San Joaquin Rivers. Document 32
19 summarizes the results of the "bubble barrier" experiment that
20 was conducted during the VAMP period in April-May 2009, before
21 the BiOp was issued. Conceptual studies of the bubble barrier
22 are included in the record, *see, e.g.*, NMFS AR at 58472, 73147,
23 73172, and it was also discussed among NMFS staff, *see, e.g.*,
24 NMFS AR at 61049, 61059, 65222. However, Document 32, issued in
25 September 2009, post-dates the BiOp. That Document 32
26 "summarizes the results" of other studies in the AR does not
27
28

1 justify its admission under any of the narrow exceptions, as it
2 could not have been considered by the decisionmaker prior to the
3 issuance of the BiOp.

4 Plaintiffs' motion is DENIED as to Document 32.

5
6 4. Stanislaus Plaintiffs' Motion to Supplement.

7 Federal Defendants have agreed to include in the record most
8 of the Documents requested by Stanislaus River Plaintiffs. Only
9 seven (7) documents in Table E attached to Stanislaus River
10 Plaintiffs' motion to supplement remain in dispute.
11

12 B. San Luis Plaintiffs' Motion to Augment With Documents
13 Withheld Under Claim of Privilege.

14 1. Stanislaus Weir data for 04/05, 05/06, 07/08 (Table E -
15 Items 19, 21 and 22) and Rotary Screw Trap data 1993-
16 present (Table E - Item 16)

17 The Stanislaus River Weir data is collected from fishery
18 studies on the Stanislaus River. Only select years of the weir
19 data are included in the AR. Similar gaps exist in the Rotary
20 Screw Trap data included in the AR. Stanislaus River Plaintiffs
21 seek to include the remaining years of data in the AR. Federal
22 Defendants refuse, arguing that the data was not created by the
23 Bureau, the missing years cannot be found in USBR's files, and
24 the missing data was not considered or relied upon by the agency.
25 Doc. 227 at 7:23-8:5.

26 However, Federal Defendants considered certain years from
27 these data sets, which represent the only available studies of
28 certain species on the Stanislaus River, relevant enough to be

1 included in the AR. Federal Defendants' failure to consider the
2 other years is arguably a failure to consider a relevant factor
3 (i.e. a failure to consider a complete data set). The missing
4 years of data, Items 16, 19, 21 and 22 are admissible for this
5 purpose.
6

7 2. SJRGGA Temperature Comments and Attached Data (Table E,
8 Item 23).

9 Item 23 relates to the Central Valley Regional Water Quality
10 Board's ("Regional Board") consideration of Temperature Water
11 Quality Standards for the protection of anadromous fish in the
12 Merced, Stanislaus, Tuolumne, and San Joaquin Rivers. The
13 Regional Board took comments from interested parties and
14 stakeholders. Oakdale Irrigation District and South San Joaquin
15 Irrigation District submitted comments as part of this process,
16 as did others, including the California Department of Fish and
17 Game ("CDFG"). NMFS included CDFG's comments in the record, but
18 not the comments submitted by Oakdale and South San Joaquin
19 Irrigation Districts, which included 90 pages of biological and
20 temperature modeling data. NMFS insists that Item 23 was not
21 before the decisionmaker and therefore should not be part of the
22 record.
23

24 Plaintiffs argue that the information contained in Item 23
25 was publicly available and directly relates to the temperature
26 issues on the Stanislaus River. Doc. 260 at 5. However, neither
27 of these arguments suggests why this data should come in under
28

1 any of the recognized exceptions to the record review rule, if
2 NMFS may exercise its discretion not to consider the data, unless
3 expert testimony shows this was a violation of the best available
4 science requirement because the data was non-cumulative and
5 necessary.

6
7 Plaintiffs' request to supplement the record with Item 23 is
8 DENIED WITHOUT PREJUDICE.

9
10 3. Stanislaus River Temperature Model - Table E, Item 14.

11 The BiOp imposes significant new temperature requirements on
12 Stanislaus River operations. Plaintiffs seek to supplement the
13 AR with the CALFED San Joaquin River ("SJR" Water Temperature
14 Model (Item 14 on Table E). The Stanislaus River Plaintiffs
15 submit the Declaration of Avry Dotan, a hydrologist who
16 participated in the development of the CALFED SJR Water
17 Temperature Model. See Doc. 148 at ¶2. According to Mr. Dotan,
18 the model was developed as part of a stakeholder-driven process
19 to analyze the relationship between operational alternatives,
20 water temperature regimes and fish mortality on the Stanislaus
21 River. *Id.* at ¶3. The stakeholder group included Reclamation
22 and the United States Fish and Wildlife Service. The group
23 funded the development of a preliminary version of the model.
24 *Id.* The success of the preliminary model prompted CALFED to fund
25 an expanded version of the model, which has since been peer
26 reviewed. *Id.* at ¶4. The model, which is designed to provide
27
28

1 basin-wide evaluation of temperature responses to operational and
2 physical changes, has been used in several proceedings, including
3 instream/temperature studies for the Stanislaus River, the Friant
4 Restoration Projects; the Delta-Mendota Canal Recirculation
5 Project, Tuolumne River instream studies, and Merced River
6 hydropower relicensing. *Id.* at ¶7. Mr. Dotan maintains that a
7 NOAA employee, Craig Anderson, contacted him in May of 2009 about
8 running the SJR Water Temperature Model in connection with the
9 preparation of the 2009 Salmonid BiOp, Mr. Dotan was never
10 retained to perform such analysis. *Id.* at ¶8.

12 NMFS apparently utilized a different model, but has not
13 completely disclosed the nature of the model used or the location
14 of its results. At a minimum, Plaintiffs request that Defendants
15 supplement the AR with the model employed and its results. To
16 the extent that the modeling utilized is deficient, Plaintiffs'
17 maintain that Mr. Dotan should be allowed to explain why the
18 model is deficient and why the Stanislaus River Temperature model
19 is the best available scientific evidence.

21 Stanislaus River Plaintiffs' request that Federal Defendants
22 disclose the nature of the model used to develop the BiOp and the
23 location of its result is GRANTED. If, upon review of this
24 information, there is a basis in the record for Mr. Dotan to
25 opine that the model used does not represent the best available
26 science and that the Stanislaus River Water Temperature Model
27

1 does, such opinions will be considered for that limited purpose,
2 and, if legally appropriate, the data will be considered.

3
4 4. CALSIM II - Table E, Item 12.

5 Item 12 is the "Corrected San Joaquin River CALSIM II
6 model." The BiOp used an older version of the CALSIM II model.
7 Plaintiffs maintain that the older version contained coding and
8 assumption errors that affect how the model works during April
9 and May, when any flow requirements imposed by the BiOp would
10 interact with Vernalis flows set forth in applicable water rights
11 decisions and the Vernalis Adaptive Management Program ("VAMP").
12 The Stanislaus River Plaintiffs request that the corrected SJR
13 CALSIM model be added to the record. In support of this motion,
14 the Stanislaus River Plaintiffs offer the Declaration of Daniel B
15 Steiner, a civil engineer with experience in hydrologic modeling.
16 Mr. Steiner states that "[a]fter the release of the June 2009
17 BiOp, [h]e worked with [Reclamation] staff regarding [the] coding
18 errors [in the older version of CALSIM II]." Doc. 150 at ¶7.
19 Mr. Steiner "understands that [Reclamation] has since corrected
20 its model to address at least one of its errors. *Id.*

21
22
23 Mr. Steiner's declaration indicates that a corrected version
24 of the model was not available prior to the issuance of the BiOp,
25 nor do Plaintiffs suggest that anyone pointed out any errors in
26 the older CALSIM II model to Federal Defendants prior to the
27 BiOp's issuance.
28

1 Plaintiffs' motion to supplement the record with Item 12 is
2 DENIED WITHOUT PREJUDICE. If Plaintiffs' expert can demonstrate
3 that this corrected model represents "best available science"
4 that was disregarded or given insufficient weight, such opinions
5 will be considered.
6

7 C. San Luis Plaintiffs' Motion to Augment the Record with
8 Documents Withheld Under Claim of Privilege.

9 1. Documents 24 through 59.

10 NMFS has agreed to disclosed Documents 24 through 59. These
11 documents shall be added to the administrative record.

12 2. Documents Over Which Federal Defendants Assert the
13 Privilege.

14 NMFS asserts the attorney client privilege to withhold
15 Documents 1-9 and 60-63. NMFS bears the burden of demonstrating
16 the applicability of the privilege to each document. *In re*
17 *Fischel*, 557 F.2d 209, 212 (9th Cir. 1997).
18

19 a. Documents 1 through 9.

20 Documents 1 through 9 are preliminary drafts of the BiOp,
21 which contain substantive edits to, and comments by Melanie
22 Rowland, an attorney in NOAA's Office of General Counsel. NMFS
23 asserts that the documents contain legal advice from Ms. Rowland
24 on the legal issues raised by the BiOp. NMFS explains:
25

26 Not all of Ms. Rowland's suggested edits were
27 incorporated into the final biological opinion and for
28 those edits that were, the challenged documents contain
privileged legal advice regarding the legal
desirability of those edits, which are inextricably

1 intertwined with the edits themselves.

2 Doc. 227-3, McInnis Decl., ¶7.

3 Plaintiffs cite *Greenpeace v. National Marine Fisheries*
4 *Serv.*, 198 F.R.D. 540, 542 (W.D. Wash. 2000), in which, after in
5 camera review, the agency was required to disclose several
6 documents over which the deliberative process privilege was
7 asserted. Here, however, Federal Defendants rely on the
8 attorney-client privilege, arguing that it "is not possible to
9 disclose the information without revealing the attorney-client
10 privileged information." *Greenpeace*, therefore, is only relevant
11 insofar as it stands for the undisputed proposition that *in*
12 *camera* review is a useful tool for resolving whether the
13 assertion of a privilege is valid.

14
15 It is impossible to determine the propriety of Federal
16 Defendants' assertions of privilege without examining these
17 documents, although the facial explanations appear valid. In an
18 abundance of caution, Federal Defendants shall submit these four
19 documents under seal for the court's in camera review.
20

21
22 b. Documents 60-63.

23 Federal Defendants also assert the attorney client privilege
24 with respect to Documents 60-62, and the work product privilege
25 for Documents 60-63, all of which are described in the NMFS
26 Record Index as "Cliff Notes" from various internal Operations
27 Criteria and Plan ("OCAP") meetings.
28

1 As to the attorney-client privilege, federal Defendants
2 claim that these Documents "contain internal discussions in which
3 legal advice from NOAA attorneys (Christopher Keifer; Melanie
4 Rowland) is repeated and discussed among non-attorneys for the
5 specific purposes of litigation strategy and compliance with the
6 court's order in *PCFFA v. Gutierrez*. Plaintiffs object that NMFS
7 does not identify any specific information about the documents,
8 nor do they explain how non-disclosure of these documents would
9 serve the purpose of the attorney-client privilege: to promote
10 the "full and frank communication between attorneys and their
11 clients." *Upjohn Co. v United States*, 449 U.S. 383, 389 (1981).
12 Plaintiffs request that the assertion of the privilege be
13 rejected or that the documents be submitted for *in camera* review.
14
15

16 Federal Defendants' basis for assertion of the work product
17 privilege is the same as for the attorney client privilege.
18 However, San Luis Plaintiffs correctly point out that the work
19 product privilege is a qualified one, which may be overcome if
20 the requesting party can demonstrate that it "has substantial
21 need for the materials to prepare its case and cannot, without
22 undue hardship, obtain their substantial equivalent by other
23 means." Fed. R. Civ. P. 26(b)(3)(A)(ii). The privilege is held
24 by the attorney. Without knowledge of their content, San Luis
25 Plaintiffs claim they have a substantial need for these documents
26 because they pertain to the development of the BiOp, which
27
28

1 addresses the OCAP's effects on listed species.

2 Again, although the facial explanations appear valid, in an
3 abundance of caution, Federal Defendants shall submit these four
4 documents under seal for the court's in camera review.
5

6
7 III. CONCLUSION

8 Consistent with the reasoning set forth above:

9 (1) As to the motions to supplement:

10 (a) San Luis Plaintiffs' request to supplement the
11 record with

12 (i) Documents 1-14 on the ground that they were
13 attached to comment letters is DENIED;

14 (ii) Document 21, a compilation of declarations
15 referenced in the BiOp, is GRANTED;

16 (iii) Documents 1, 4, 9, and 39-41 is DENIED
17 WITHOUT PREJUDICE;

18 (iv) Documents 2 and 24-31 is DENIED WITHOUT
19 PREJUDICE;

20 (v) Document 13 is DENIED;

21 (vi) Documents 34 and 35 is GRANTED for the
22 purpose of demonstrating that Federal Defendants
23 failed to consider a relevant factor, namely the
24 impact of hatchery fish on salmonid fitness;
25
26
27
28

1 (vii) Documents 10 and 11 is GRANTED for the
2 purpose of demonstrating that Federal Defendants
3 failed to consider a relevant factor, the
4 purported primacy of the impact of ocean
5 conditions on salmonid survival;
6 (viii) Document 23 is DENIED;
7 (ix) Documents 5 and 6 is DENIED;
8 (x) Document 36 is DENIED;
9 (xi) Documents 3, 7, 8, 14, 37, and 38, as
10 representing the best available science, is DENIED
11 WITHOUT PREJUDICE;
12 (xii) Documents 14 is GRANTED for the purpose of
13 demonstrating that Federal Defendants failed to
14 consider a relevant factor, namely the past or
15 current existence of a different steelhead run in
16 the action area;
17 (xiii) Documents 3, 7, 8, 37 and 38 is DENIED as
18 to the relevant factors and explanation of complex
19 scientific information exceptions; and
20 (ixx) Document 32 is DENIED;

21
22
23
24 (b) Stanislaus River Plaintiffs' motion to supplement
25 is GRANTED as to Items 16, 19, 21 and 22 and DENIED
26 WITHOUT PREJUDICE as to Items 12 and 23.
27
28

1 (c) Stanislaus River Plaintiffs' request that Federal
2 Defendants disclose the nature of the model used to
3 develop the BiOp and the location of its result is
4 GRANTED.

5 (2) As to the motion to augment, Federal Defendants shall
6 (a) disclose documents 24 through 59; and
7 (b) lodge Documents 1-9 and 60-63 under seal for in
8 camera review within five (5) days of service of this
9 order. Given the length of the BiOp, Federal
10 Defendants may elect to lodge any or all of these
11 documents on CD in lieu of hard copies.
12

13 Plaintiffs shall submit a form of order consistent with this
14 memorandum decision within five (5) days of electronic service.
15

16
17 SO ORDERED

18 Dated: June 21, 2010

19 /s/ Oliver W. Wanger
20 Oliver W. Wanger
21 United States District Judge
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23
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