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UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF CALIFORNIA

DELTA SMELT CONSOLIDATED
CASES

1:09-CV-407 OWW DLB

SAN LUIS & DELTA-MENDOTA
WATER AUTHORITY, *et al.* v.
SALAZAR, *et al.*

MEMORANDUM DECISION AND
ORDER RE MOTION TO
SUPPLEMENT THE
ADMINISTRATIVE RECORD (DOC.
170).

STATE WATER CONTRACTORS v.
SALAZAR, *et al.*

COALITION FOR A SUSTAINABLE
DELTA, *et al.* v. UNITED
STATES FISH AND WILDLIFE
SERVICE, *et al.*

METROPOLITAN WATER DISTRICT
v. UNITED STATES FISH AND
WILDLIFE SERVICE, *et al.*

STEWART & JASPER ORCHARDS *et*
al. v. UNITED STATES FISH
AND WILDLIFE SERVICE.

I. INTRODUCTION

Plaintiffs San Luis & Delta-Mendota Water Authority,
Westlands Water District, State Water Contractors,
Coalition for a Sustainable Delta, Kern County Water
Agency, and Metropolitan Water District of Southern
California (collectively, "Plaintiffs") move to

1 supplement the administrative record. Doc. 170; see also
2 Doc. 331-2 (listing documents in dispute and the parties
3 respective positions concerning supplementation).

4 A November 18, 2009 order reduced to writing the
5 district court's oral rulings as to the vast majority of
6 the documents in dispute. Doc. 406. As to certain
7 "influential scientific reports and articles published
8 prior to December 15, 2008, regarding the delta smelt
9 and/or its habitat" (Documents 215-221, 223, 226-227,
10 233-235, 241-242, 245, 254-255, 258-264), the district
11 court tentatively denied Plaintiffs' motion, but allowed
12 Plaintiffs to supplement their briefing to present
13 further "foundation," reasoning that Plaintiffs' "should
14 have shown ... that ... the data and information" in
15 these documents is not already "considered by existing
16 record information." Doc. 406 at ¶8; Transcript of
17 11/19/09 hearing, Doc. 392, at 37-43. Plaintiffs filed a
18 supplemental brief on November 6, 2009. Doc. 385.
19 Federal Defendants opposed on November 20, 2009. Doc.
20 412.

21 II. ANALYSIS

22 A. Legal Framework.

23
24 The APA limits the scope of judicial review to the
25 administrative record. 5 U.S.C. § 706 (directing the
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1 court to "review the whole record or those parts of it
2 cited by a party."). The administrative record is "not
3 necessarily those documents that the agency has compiled
4 and submitted as 'the' administrative record." *Thompson*
5 *v. U.S. Dept. of Labor*, 885 F.2d 551, 555 (9th Cir.
6 1989). Rather, "[t]he whole record' includes everything
7 that was before the agency pertaining to the merits of
8 the decision." *Portland Audubon Soc'y v. Endangered*
9 *Species Comm.*, 984 F.2d 1534, 1548 (9th Cir. 1993). "The
10 'whole' administrative record, therefore, consists of all
11 documents and materials directly or indirectly considered
12 by agency decision-makers and includes evidence contrary
13 to the agency's position." *Thompson*, 885 F.3d at 555
14 (emphasis added).
15
16

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

22 *Portland Audubon*, 984 F.2d 1534 (internal quotations and
23 citations omitted); see also *Asarco, Inc. v. U.S.*
24 *Environmental Protection Agency*, 616 F.2d 1153, 1160 (9th
25 Cir. 1980) ("A satisfactory explanation of agency action
26 is 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

1 all the relevant facts.").

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

6
7 A broad application of the phrase "before the
8 agency" would undermine the value of judicial
9 review: Interpreting the word "before" so
10 broadly as to encompass any potentially relevant
11 document existing within the agency or in the
12 hands of a third party would render judicial
13 review meaningless. Thus, to ensure fair review
14 of an agency decision, a reviewing court should
15 have before it neither more nor less information
16 than did the agency when it made its decision.

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

Here, Plaintiffs point out that the ESA consultation

1 regulations require FWS to "(1) Review all relevant
2 information provided by the Federal agency or otherwise
3 available....; (2) [e]valuate the current status of the
4 listed species or critical habitat....; and (3)
5 [e]valuate the effects of the action and cumulative
6 effects on the listed species or critical habitat." 50
7 C.F.R. § 402.14(g)(1)-(3). The Consultation Handbook
8 explains that a biological opinion should include a
9 description of the proposed action, the status of the
10 species and its critical habitat, the environmental
11 baseline, the effects of the action, any cumulative
12 effects, a conclusion, and any reasonable and prudent
13 alternatives. U.S. Fish and Wildlife Service and
14 National Marine Fisheries Service, *Endangered Species*
15 *Consultation Handbook* at 4-13 (March 1998).¹

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

23
24 (1) when it needs to determine whether the
25 agency has considered all relevant factors and
26 has explained its decision;

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

¹ The district court previously took judicial notice of this Handbook, available at:
<http://www.fws.gov/endangered/consultations/s7hndbk/s7hndbk.htm>.

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

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

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

15
16 B. Influential Scientific Reports and Articles Published
17 Prior to December 15, 2008, Regarding the Delta Smelt
18 and/or its Habitat.

19 Plaintiffs seek to supplement the record with certain
20 "influential scientific reports and articles" (Documents
21 215-221, 223, 226-227, 233-235, 241-242, 245, 254-255,
22 258-264). The documents can be generally grouped into
23 the following categories:

24 (1) Documents pertaining to climate change and
25 the future of the Delta;

26 (2) Documents synthesizing issues affecting the
27 Delta;

28 (3) Documents concerning the effect(s) of
ammonia on the delta smelt;

1
2 (4) Documents concerning the effect(s) of
pesticides on the delta smelt;

3 (5) Documents related to the food web of the
4 Delta.

5 (6) Documents pertaining to invasive species and
6 habitat restoration.

7 Plaintiffs argue that these documents should be
8 admitted as supplements to the record because they are
9 "necessary to determine whether FWS considered all
10 relevant factors and explained its decision," Doc. 385 at
11 2, an invocation of the second exception to the
12 prohibition against consideration of extra-record
13 evidence. *Southwest Center*, 100 F.3d at 1450.

14 Plaintiffs maintain that the data and analyses presented
15 in each of these documents are not otherwise available in
16 the AR.
17

18 1. Documents pertaining to Climate Change and
19 The Future of the Delta.

20 Plaintiffs argue that the record should be
21 supplemented to include each of the following reports on
22 climate change:

- 23 • Document 218, Louise Bedworth & Ellen Hanak, Pub.
24 Policy Inst. of Cal., *Preparing California for a*
25 *Changing Climate* (2008).
26 • Document 220, Ellen Hanak & Jay Lund, Pub. Policy
27 Inst. of Cal., *Adapting California's Water Management*
to Climate Change (2008).

- 1 • Document 258, Michael D. Dettinger et al., Simulated
2 Hydrological Responses to Climate Variations and
3 Changes in the Merced, Carson, and American River
4 Basins, Sierra Nevada, California, 1900-2099, 62
5 Climatic Change 283 (2004).
- 6 • Document 259, Peter H. Gleick & Elizabeth L.
7 Chalecki, The Impacts of Climate Changes for Water
8 Resources of the Colorado and Sacramento San-Joaquin
9 River Basins, 35 J. Am. Water Resources Ass'n 1429
10 (1999).
- 11 • Document 260, Katharine Hayhoe et al., Emissions
12 Pathways, Climate Change, and Impacts on California,
13 101 Proceedings Nat'l Academy Sci. U.S. America 12422
14 (2004).
- 15 • Document 261, Noah Knowles & Daniel R. Cayan,
16 Potential Effects of Global Warming on the
17 Sacramento/San Joaquin Watershed and the San
18 Francisco Estuary, 29 Geophys. Res. Letters 1891
19 (2002).
- 20 • Document 262, Nathan T. VanRheenen et al., Potential
21 Implications of PCM Climate Change Scenarios for
22 Sacramento-San Joaquin River Basin Hydrology and
23 Water Resources, 62 Climatic Change 257 (2004).
- 24 • Document 263, Sebastian Vicuna et al., The
25 Sensitivity of California Water Resources to Climate
26 Change Scenarios, 43 J. Am. Water Resources Ass'n 482
27 (2007).
- 28 • Document 264, Tingju Zhu et al., Estimated Impacts of
Climate Warming on California Water Availability
Under Twelve Future Climate Scenarios, 41 J. Am.
Water Res. Ass'n 1027 (2005).

The BiOp discusses several "climate change scenarios" generated using CALSIM II, BiOp 208, and concludes that OMR flow patterns will likely not be modified by climate change, while X2 may move further downstream in April and May in dry and critical years, *id.* at 222. Plaintiffs

1 concede that the AR contains some additional material
2 concerning climate change. See Doc. 385 at 6 (citing AR
3 16323 (DWR report entitled "Progress on Incorporating
4 Climate Change into planning and Management of
5 California's Water Resources"), AR 17655-65 (Estuary
6 Watershed Article on Climate Change in California),
7 10071-74 (OCAP BA Discussion of Climate Change), 11089-
8 11092 (same)).

10 Document 218 is a report published by the Public
11 Policy Institute of California ("PPIC") assessing
12 California's current level of preparedness for climate
13 change impacts by examining six susceptible areas,
14 including water resources and ecosystems. According to
15 Plaintiffs, Document 218 "draws upon numerous peer-review
16 published articles on the subject of climate change, none
17 of which are included in the Index to Literature that
18 accompanied the AR." Doc. 385 at 4. Plaintiffs do not
19 explain why this document is necessary to demonstrate
20 that FWS failed to consider "relevant factors" and/or
21 "explain[] its decision." Although Plaintiffs assert
22 Climate Change was not evaluated thoroughly enough and
23 maintain that certain, critical data and/or reports were
24 not considered, climate change was given some analysis.
25 Document 218 may not be considered under the relevant
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1 factors/explanation of decision exception. However, if
2 material in the PPIC report represents "best available
3 science" that was ignored or given insufficient weight,
4 Plaintiffs' experts may reference the document for that
5 purpose.
6

7 This analysis applies with equal force to most of the
8 remaining climate change documents. Plaintiffs maintain
9 that Documents 220, 258, 260, 262, 263, and 264 provide
10 data and/or information not otherwise considered in the
11 AR, but fail to demonstrate that they are necessary to
12 determine whether FWS considered all relevant factors
13 and/or explained its decision. These documents either
14 synthesize existing data in different ways or utilize
15 different models to evaluate existing data. They do not
16 raise entirely new "factors" for consideration and
17 therefore cannot be considered under the "relevant
18 factors" exception, nor to Plaintiffs explain why these
19 documents are necessary to demonstrate that FWS did not
20 explain its decision.
21

22 Document 259 provides a summary of the major studies
23 on climate change that have been conducted for the
24 Sacramento River Basin over the past 20 years and
25 discusses the impacts of these studies for water
26 management, planning, and policy. In particular,
27
28

1 Plaintiffs argue that Document 259 "indicate[s] that
2 climate change will effect salinity, sea-level, water
3 quality, and streamflow -- all factors that will effect
4 the delta smelt." Doc. 385 at 5. Document 259 concludes
5 that climate change will likely result in "an increase in
6 the ratio of rain to snow, even if total precipitation
7 amounts remain stay the same; an increase in winter
8 runoff as a fraction of total annual runoff; an earlier
9 start [to] and faster spring snowmelt; a shorter snowmelt
10 season; a decrease in late spring and summer runoff as a
11 total amount of annual runoff; and an earlier drying of
12 summer soil moisture." Document 259 at 1435. In
13 addition, the paper concludes that these watershed
14 responses may "threaten levee stability in the region,
15 and that more salinity intrusion could affect water
16 quality." *Id.* at 1436.

19 Plaintiffs' suggest that Document 259 highlights new
20 "factors" not considered by FWS because it addresses
21 "streamflow" and "water quality." Doc 385 at 5. First,
22 it is not entirely accurate to conclude that the AR does
23 not address "streamflow," which is an aspect of the
24 CALSIM II modeling process used to evaluate the various
25 climate change scenarios in the BiOp. To the extent
26 Document 259 discusses water quality in the Sacramento
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1 River Basin at all, it does so in the context of water
2 quality impacts from salinity changes. Document 259 at
3 1436. The impacts of salinity are indirectly addressed
4 by the CALSIM II modeling of the position of X2.
5 Document 259 does not address any new factors.

6
7 Plaintiffs' motion to supplement the AR is DENIED as
8 to Documents 218, 220, 258, 259, 269, 260, 262, 263, and
9 264. If Plaintiffs' experts are able to demonstrate that
10 any of these documents constitute "best available
11 science" that was ignored or given insufficient weight,
12 the Documents may be referenced for that purpose only.
13

14 2. Documents Synthesizing Issues Affecting the
15 Delta.

16 The next four documents (215, 216, 217 & 242)
17 "synthesize the multitude of studies that have been
18 conducted on the Delta and look at the decline of the
19 delta from a broad perspective instead of merely focusing
20 on the CVP and SWP as the primary causes." Doc. 385 at
21 8.

- 22
- 23 • Document 215, Jay Lund et al., Pub. Policy Inst. of
24 Cal., Comparing Futures for the Sacramento-San
25 Joaquin Delta (2008).
 - 26 • Document 216, Ellen Hanak & Jay R. Lund, Policy and
27 Regulatory Challenges for the Delta of the Future,
28 Appendix A to Comparing Futures for the Sacramento-
San Joaquin Delta (2008).
 - Document 217, Peter B. Moyle & William A. Bennett,
The Future of the Delta Ecosystem and Its Fish,

1 Technical Appendix D to Comparing Futures for the
2 Sacramento-San Joaquin Delta (2008).

- 3 • Document 242, Michael Healey, Context Memorandum:
4 Delta Ecosystem (August 13, 2007).

5 Plaintiffs argue, without any explanation, that these
6 documents should be considered to determine whether FWS
7 "considered all relevant factors in making its decision."
8 But, Plaintiffs fail to identify any particular factor
9 considered in any of these documents that was not treated
10 in the BiOp or AR. The fact that these reports may
11 synthesize available information in a particularly
12 compelling or convenient manner does not require their
13 consideration under any of the exceptions to the
14 prohibition against extra-record evidence. Plaintiffs'
15 motion to supplement the AR is DENIED as to Documents
16 215-217 & 242.
17

18
19 3. Documents Concerning the Effect(s) of
Ammonia on the Delta Smelt.

20 Documents 221 and 254 concern the effects of ammonia
21 on fish:

- 22 • Document 221, F.B. Eddy, Ammonia in Estuaries and
23 Effects on Fish, 67 J. Fish Biology 1495 (July 18,
24 2005).
25 • Document 254, B.J. Wicks et al., Swimming and Ammonia
26 Toxicity in Salmonids; The Effect of Sublethal
27 Ammonia Exposure on the Swimming Performance of Coho
28 Salmon and the Acute Toxicity of Ammonia in Swimming
and Resting Rainbow Trout, 59 Aquatic Toxicology 55
(2002).

1 The BiOp already discusses how releases of ammonia
2 may affect embryo survival or inhibit prey production,
3 BiOp 153, 186, 237, and the AR contains information
4 recognizing the effect of ammonia on delta smelt food
5 sources, AR 6405-6506, 10144-10179, 19821-76.
6

7 Documents 221 and 254 address sub-lethal "biological"
8 effects of ammonia on estuarine fish, such as reduced
9 swimming performance and increase sensitivity to ammonia
10 while swimming. It does not appear that these biological
11 effects are discussed in the BiOp or AR, but, as neither
12 study pertains directly to delta smelt, it is not
13 apparent how these studies establish "biological"
14 effects to the smelt and/or how these biological effects
15 may be relevant to the jeopardy analysis. Expert opinion
16 is necessary to determine if the treatment of ammonia in
17 these two studies constitute a relevant factor that is
18 not treated in the BiOp or AR. Plaintiffs' motion to
19 supplement the record is DEFERRED as to these two
20 documents.
21

22 Plaintiffs also argue that these documents should be
23 considered in order to determine whether FWS relied upon
24 the best available science. Doc. 385 at 10. This
25 requires expert testimony not yet provided. If
26 Plaintiffs' experts are able to demonstrate that either
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1 of these documents constitute "best available science"
2 that was ignored or given insufficient weight, the
3 Documents may be referenced for that purpose only.
4

5 4. Documents Concerning the Effect(s) of
6 Pesticides on the Delta Smelt.

7 Documents 233-35 and 255 concern the effects of
8 pesticides on delta smelt:

- 9 • Document 233, Lei Guo et al., Evaluation of Sources
10 and Loading of Pesticides to the Sacramento River,
11 California, USA During a Storm Event of Winter 2005,
12 26 Environmental Toxicology & Chemistry 2274 (2007).
- 13 • Document 234, Kelly L. Smalling et al., Occurrence of
14 Pesticides in Water, Sediment, and Soil from the Yolo
15 Bypass, California, 5 San Francisco Estuary &
16 Watershed Science (2007).
- 17 • Document 235, Ted Daum & Rainer Hoenicke, RMP
18 Watershed Pilot Study: An Informative Review with
19 Emphasis on Contaminant Loading, Sources, and
20 Effects, San Francisco Estuary Regional Monitoring
21 Program (San Francisco Estuary Inst., San Francisco,
22 CA), January 1998, Contribution #19.
- 23 • Document 255, Donald Weston & Michael Lydy,
24 Pyrethroids Pesticides in the Sacramento-San Joaquin
25 Delta: Sources and Impacts on Delta Waters (undated).

26 Document 233 analyzes data regarding 26 pesticides
27 used in the Sacramento Valley and demonstrates that the
28 Sacramento River above Colusa is a major source of
pesticide loading in the main stem of the Sacramento. It
also concludes that the only pesticide with
concentrations over water quality standards is Diazinon,
an organophosphate insecticide, and that "additional

1 mitigation measures may be needed to reduce its movement
2 to surface water." Document 233 at 2274.

3 Document 234 evaluated potential sources of
4 pesticides in the Yolo Bypass, and concluded that
5 exposure to a mixture of pesticides in the water,
6 sediment, and prey could lead to sub-lethal or chronic
7 effects for some fish.
8

9 Document 235 provides a summary of various studies
10 focusing on pollutant loading and sources within the San
11 Francisco Estuary. It concludes that sources of
12 pollutant loading are diverse and that that trace
13 organics found in the San Francisco Estuary that are
14 individually innocuous at ambient concentrations can be
15 cumulatively toxic when present together. According to
16 Plaintiffs "[t]his document provides crucial background
17 information on this important factor effecting the
18 environmental baseline and establishes the need to
19 explore additional studies on the subject of contaminant
20 loading in the Delta." Doc. 385 at 13.
21

22 Document 255 summarizes a study of pyrethroid
23 insecticides in the Delta and their effects on the waters
24 of the Delta. It finds that virtually all urban runoff
25 contained pyrethroids at four times the concentration
26 that would paralyze sensitive aquatic species, and that
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1 that two-thirds of the samples from wastewater treatment
2 plants had concentrations of pyrethroids at 0.5-1.5 times
3 the concentration that would cause paralysis. It also
4 showed that toxicity in receiving waters was very high
5 following storm events and that toxicity in rivers can be
6 compounded by low flows maintained by low releases from
7 dams providing less water to dilute pesticide-filled
8 runoff. Plaintiffs argue "[t]his document is relevant
9 because it provides additional data on sources and
10 concentrations of pyrethroid insecticides that enter the
11 waters of the Delta and the impact high concentrations of
12 pyrethroids can have on sensitive aquatic species. It
13 helps establish a correlation of increased use of
14 pyrethroids with the pelagic organism decline, and thus
15 is an important factor in establishing the environmental
16 baseline for the delta smelt." *Id.*

17
18
19 At the same time, Plaintiffs acknowledge that the
20 BiOp addresses the effects of pesticides:

21 The 2008 BiOp recognizes that contaminants can
22 change ecosystem functions and productivity
23 through numerous pathways, but states that
24 contaminant loading and its ecosystem effects
25 within the Delta are not well understood. (AR
26 201.) The 2008 BiOp also states that pyrethroids
27 are of particular interest because use of these
28 insecticides has increased within the Delta
watershed and toxicity of sediment-bound
pyrethroids to macroinvertebrates has been
observed in small watersheds tributary to the
Delta. (AR 202.)

1 Doc. 385 at 11. Plaintiffs also recognize that the AR
2 contains information about the impacts of pesticides:
3

4 One study included in the record tests water
5 samples in the Delta for pesticides and their
6 toxicity. (AR 21661-21795.) Another assesses the
7 potential for exposure of delta smelt during
8 early life stages to dissolved pesticides by
9 identifying dissolved pesticide concentrations
10 in water samples taken from the Delta. (AR
11 19054- 19067.) The record also includes a study
12 that examines water samples to determine the
13 input and transport of dormant spray pesticides
14 such as Diazinon to the San Francisco Estuary.
15 (AR 19068- 19077.)

16 Plaintiffs acknowledge "[t]hese studies address
17 significant aspects of the pesticide problem in the
18 Delta," but argue that they "do not provide a complete
19 picture":

20 For example, they lack testing on sediment
21 samples for pyrethroid insecticides, which are
22 being increasingly used in the Delta. The
23 documents Plaintiffs seek to admit add to the
24 body of data related to pesticide testing in
25 soil and sediment samples effecting the Delta.
26 While one study in the Administrative Record
27 focuses on sediment testing (AR 16858-16864), it
28 states that because sediments serve as the
primary ecological repository of pyrethroid
compounds, more studies that add to an
understanding of fate and toxicity of sediment
associated pyrethroids are needed to properly
assess the ecological risk of pyrethroids to
aquatic species. Documents 233-235 and 255 serve
this purpose and fill a data gap in the
Administrative Record.

Moreover, plaintiffs seek to admit scientific
literature regarding the sources of pyrethroid
insecticides. The record includes a case study
of aquatic toxicity due to residential use of

1 pyrethroid insecticides, but its data is limited
2 to samples taken from the city of Roseville. (AR
3 21797-21803.) Document 255 provides a breakdown
4 of pyrethroid sources to the Delta (including
5 eight agricultural pumping stations, six urban
6 runoff pump stations or storm drains, three
7 municipal wastewater treatment plans and the
8 Sacramento and San Joaquin Rivers as they enter
9 the Delta) and examines the effects on the water
10 bodies in to which they are released. This study
11 is more comprehensive and relevant to
12 establishing the environmental baseline for the
13 species in the Delta. Because the effect of
14 pesticides are known to be harmful and possibly
15 lethal to the delta smelt, understanding their
16 sources, distribution, and impact on the delta
17 smelt is necessary to determine the baseline of
18 the species. Therefore, Plaintiffs should be
19 permitted to refer to these documents to
20 demonstrate that federal defendants did not
21 consider all relevant factors.

22 Doc. 385 at 14 (emphasis added).

23 Plaintiffs do not demonstrate that any of these
24 documents are necessary to show that FWS failed to
25 consider any relevant factor(s). In fact, Plaintiffs
26 acknowledge that the BiOp and the AR review the
27 distribution and effects of pesticides, including the
28 issues of sediment contamination and pyrethroid
insecticides. The documents offered by Plaintiffs do not
address new "relevant factors" to meet that exception.
Plaintiffs' request is DENIED on this ground. If
Plaintiffs' experts believe these studies represent best
available science that was unlawfully ignored or
discounted by FWS, the studies may be considered in that

1 context.

2
3 5. Documents Related to the Food Web of the
4 Delta.

5 Documents 223, 226, 227 and 245 concern issues
6 related to the food web of the Delta.

- 7 • Document 223, J.K. Thompson et al., Shallow Water
8 Processes Govern System-Wide Phytoplankton Bloom
9 Dynamics: A Field Study, 74 J. Marine Systems 153
10 (2007).
- 11 • Document 226, Julie W. Ambler et al., Seasonal Cycles
12 of Zooplankton from San Francisco Bay, 129
13 Hydrobiologia 177 (1985).
- 14 • Document 227, Wim J. Kimmerer et al., Chronic Food
15 Limitation of Egg Production in Populations of
16 Copepods of the Genus *Acartia* in the San Francisco
17 Estuary, 28 Estuaries & Coasts 541 (2005).
- 18 • Document 245, Wim J. Kimmerer et al., Predation by an
19 Introduced Clam as the Likely Cause of Substantial
20 Declines in Zooplankton of San Francisco Bay, 113
21 Mar. Ecol. Prog. Serv. 81 (1994).

22 Plaintiffs acknowledge that the BiOp concludes that
23 declines in phytoplankton and zooplankton can impact food
24 availability for the delta smelt and that water
25 diversions from the CVP and SWP directly entrain
26 zooplankton and phytoplankton biomass, thereby adversely
27 impacting food availability for the delta smelt,
28 negatively effecting its survival and reproduction. Doc.
385 at 15 (citing AR 200, 257). However, Plaintiffs
maintain that the above-listed documents are necessary to
demonstrate that FWS failed to consider "factors

1 influencing decline and production of phytoplankton and
2 zooplankton that is not otherwise available in the
3 Administrative Record." Doc. 385 at 15.

4 Document 223 analyzes the effects of benthic grazing
5 and light attenuation on phytoplankton dynamics in South
6 San Francisco Bay. Plaintiffs acknowledge that the AR
7 "includes an article that provides limited discussion of
8 phytoplankton production," by "summariz[ing] studies that
9 have found that production can be limited by temperature,
10 light, nutrients, inorganic carbon, or grazing, and high
11 levels of contaminants such as copper." *Id.* (citing AR
12 18705-18845, 18749.) Plaintiffs simply argue that
13 Document 223 "provides a more substantive and detailed
14 discussion regarding the influences on phytoplankton
15 production." This is not sufficient to justify
16 supplementation of the record under the "relevant
17 factors" exception. If this "more substantive and
18 detailed discussion" represents the best available
19 science, it may be considered for that purpose upon a
20 proper foundational showing by an expert.

21 Document 226 documents seasonal population dynamics
22 of zooplankton in the San Francisco Bay estuary.
23 Plaintiffs suggest that the AR should be supplemented to
24 include this study, because it "provides information
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1 regarding river inflow, salinity distribution, and the
2 effect on zooplankton, which is not otherwise discussed
3 in detail in the Administrative Record." The fact that
4 the offered document provides greater detail about a
5 particular topic does not demonstrate that it is
6 necessary to show that FWS failed to consider a
7 particular relevant factor or that FWS failed to
8 sufficiently explain its decision.

10 Document 227 is a study funded by CALFED that was
11 cited by other documents in the Administrative Record.
12 (AR 6383; AR 12702). Among other things, this study
13 shows that a certain species of zooplankton (Acartia) can
14 remain dominant at moderate to high salinity, even when
15 chronically underfed. According to Plaintiffs, this
16 study "is necessary to determine whether the Service
17 considered all relevant factors because its conclusion
18 contradicts the idea presented in the 2008 BiOp that low
19 outflow equals entrainment of copepods." Doc. 385 at 16-
20 17. But, this misses the distinction between the
21 "relevant factors" exception and the best available
22 science requirement. This study does nothing to suggest
23 that FWS failed to consider the population dynamics of
24 copepods. Rather, it suggests that FWS reached an
25 incorrect conclusion with regard to copepod populations
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1 because it failed to consider the information contained
2 in 227. This is a "best available science" argument that
3 must be supported by expert declarations or testimony.

4 Finally, Document 245 is a study that concludes that
5 invasion by Asian clams may have permanent effects on the
6 zooplankton population in the San Francisco Bay due to
7 predation. Plaintiffs acknowledge that the AR and BiOp
8 discuss the effect of the Asian clam on zooplankton
9 abundance, but complain that the AR "do[es] not provide
10 any substantive analysis." Doc. 385 at 17.

11 Specifically, Plaintiffs argue that "[w]hile articles and
12 reports in the Administrative Record recognize the impact
13 of invasive species such as the Asian clam on
14 phytoplankton and zooplankton, [D]ocument 245 provides a
15 more in-depth understanding of how invasive species such
16 as the Asian clam operate to cut short the delta smelt
17 food supply in the San Francisco Bay." *Id.* Again, the
18 fact that the offered document provides greater detail
19 about a particular topic does not demonstrate that it is
20 necessary to show that FWS failed to consider a
21 particular relevant factor or that FWS failed to
22 sufficiently explain its decision.

23 Plaintiffs' request to supplement the record with
24 Documents 223, 226, 227 and 245 is DENIED WITHOUT
25

1 PREJUDICE to their consideration if Plaintiffs' experts
2 are able to demonstrate that any of these documents
3 constitute "best available science" that was ignored or
4 given insufficient weight.
5

6 6. Documents Pertaining to Invasive Species and
7 Habitat Restoration.

8 Component 4 of the RPA requires habitat restoration
9 to benefit the delta smelt. Document 241 relates to
10 invasive species and habitat restoration:

- 11 • Document 241, Lenny F. Grimaldo et al., Spatial and
12 Temporal Distribution of Native and Alien
13 Chthyoplankton in Three Habitat Types of the
14 Sacramento-San Joaquin Delta, Am. Fisheries Soc'y
Symposium (Am. Fisheries Soc'y, Bethesda, Md.)
February 2004, Symposium 39, at 81-96.

15 Document 241 examines the limitations of the benefits of
16 habitat restoration given the existence of invasive
17 species. The article specifically addresses three
18 habitat types in the Delta.

19 Plaintiffs acknowledge that the AR provides some
20 discussion regarding habitat restoration and invasive
21 species. Doc. 385 at 18 (citing AR 17371-17414; AR
22 17415-17429). Plaintiffs argue that supplementation of
23 the record with Document 241 is nevertheless appropriate
24 because the first article on the subject in the AR does
25 not "provide in depth analysis regarding this issue; it
26 merely raises it as a topic of concern," while the second
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1 article in the AR focuses more on a different subject and
2 "does not provide the same level of detail regarding
3 various habitat types." *Id.* This does not suggest that
4 Document 241 is necessary to demonstrate that FWS failed
5 to consider a relevant factor or sufficiently explain its
6 decision. Plaintiffs' motion to supplement the record
7 with Document 241 is DENIED. As with the other documents
8 for which supplementation has been DENIED, if Document
9 241 represents the best available science, Plaintiffs may
10 refer to it for that purpose upon presentation of the
11 proper foundation provided by an expert witness.
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14 III. CONCLUSION

15 For the reasons set forth above:

16 (1) Plaintiffs' motion to supplement the AR with
17 Documents 221 and 254 is DEFERRED, pending
18 further expert input;

19 (2) Plaintiffs' motion to supplement the AR with
20 Documents 215-220, 223, 226-227, 233-235, 241-
21 242, 245, 255, and 258-264 is DENIED WITHOUT
22 PREJUDICE.
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24 (3) If any Document represents best available
25 science that an expert opines was ignored or
26 given insufficient weight, Plaintiffs may refer
27 to it for that purpose, upon presentation of the
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1 proper foundation provided by an expert witness.
2 (4) As Plaintiffs' deadline for the submission
3 of expert declarations has passed, they may
4 supplement their existing expert declarations,
5 to the extent necessary and only for the
6 purposes outlined in this memorandum decision
7 and order, on or before December 28, 2009 in
8 separate declarations entitled "Supplemental
9 Declaration Re: Ammonia Studies as Relevant
10 Factors" and/or "Supplemental Declaration Re:
11 Best Available Science Documents." Any rebuttal
12 declarations are due by January 6, 2010.
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16 SO ORDERED

Dated: December 16, 2009

17 /s/ Oliver W. Wanger
18 Oliver W. Wanger
19 United States District Judge
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