

1 COUNSEL IDENTIFICATION AT END

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UNITED STATES DISTRICT COURT

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EASTERN DISTRICT OF CALIFORNIA – FRESNO DIVISION

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DELTA SMELT CONSOLIDATED CASES

1:09-cv-00407-OWW-GSA

1:09-cv-00422-OWW-GSA

1:09-cv-00631-OWW-GSA

1:09-cv-00892-OWW-GSA

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SAN LUIS & DELTA-MENDOTA WATER
AUTHORITY et al. v. SALAZAR et al. (Case
No. 1:09-cv-407)

PARTIALLY CONSOLIDATED WITH:

1:09-cv-00480-OWW-GSA

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STATE WATER CONTRACTORS v.
SALAZAR et al. (Case No. 1:09-cv-422)

**PLAINTIFFS’ OPPOSITION TO
FEDERAL DEFENDANTS’ MOTION
FOR STAY PENDING APPEAL OF
THE COURT’S ORDER ENJOINING
ACTION 4**

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COALITION FOR A SUSTAINABLE DELTA
et al. v. UNITED STATES FISH AND
WILDLIFE SERVICE et al. (Case No. 1:09-cv-
480)

DATE: September 16, 2011

TIME: 12:00 p.m.

CRTROOM: 3

JUDGE: Hon. Oliver W. Wanger

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METROPOLITAN WATER DISTRICT v.
UNITED STATES FISH AND WILDLIFE
SERVICE et al. (Case No. 1:09-cv-631)

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STEWART & JASPER ORCHARDS et al. v.
UNITED STATES FISH AND WILDLIFE
SERVICE et al. (Case No. 1:09-cv-892)

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1 **I. INTRODUCTION**

2 In their motion for stay, pending appeal, of the injunction enjoining Component 3
3 (the“Fall X2 Action”) of the Reasonable and Prudent Alternative (“RPA”) in the 2008 Delta
4 Smelt Biological Opinion (“BiOp”) (Doc. 1032-1 ((Fed. Defs.’ Memo in Supp. of Mot. for
5 Stay)), Defendants do not controvert the calculations of harm Plaintiffs are likely to suffer if the
6 Fall X2 Action is allowed to be implemented, nor can they. Defendants instead rely on new
7 expert opinions to assert that the delta smelt will be irreparably harmed if the Fall X2 Action is
8 not implemented at kilometer 74. These opinions should be rejected because, not only were they
9 not offered by Defendants at the injunctive relief hearing less than two months ago, but they
10 contradict the testimony offered by those same experts at the hearing. Further, as was the case at
11 the injunctive relief hearing in July, there still are no competent scientific data or analyses that
12 indicate that the location of X2 bears a rational relationship to the abundance of delta smelt.
13 Instead, the Court’s conclusions supporting the injunction remain resolute today, the:

14 [S]cientific evidence in support of imposing any Fall X2 action is
15 manifestly equivocal. There is essentially no biological evidence
16 to support the necessity of the specific 74 km requirement set to be
17 triggered in this ‘wet’ water year. The agencies ‘still don't get it.’
18 They continue to believe their ‘right to be mistaken’ excuses
precise and competent scientific analysis for actions they know
will wreak havoc on California’s water supply.

19 Doc. 1013 (Findings of Fact and Conclusions of Law Re Plfs.’ Req. for Injunctive Relief Against
20 Implementation of RPA Component 3 (Action 4)) at 139. For these reasons, and as more fully
21 set forth below, Defendants have failed to provide the Court with any reason to reconsider its
22 decision to enjoin the Fall X2 Action or to stay the injunction, and Defendants’ motion should
23 therefore be denied.

24 **II. STANDARD FOR STAY PENDING APPEAL**

25 “A stay is not a matter of right, even if irreparable injury might otherwise result.” *Nken*
26 *v. Holder*, ___ U.S. ___, 129 S. Ct. 1749, 1761 (2009) (citing *Virginian R. Co. v. United States*, 272
27 U.S. 658, 672, (1926)). It is instead “an exercise of judicial discretion,” and “[t]he propriety of
28 its issue is dependent upon the circumstances of the particular case.” *Id.* The four factors that

1 are traditionally considered when evaluating whether to issue a stay are “(1) whether the stay
2 applicant has made a strong showing that he is likely to succeed on the merits; (2) whether the
3 applicant will be irreparably injured absent a stay; (3) whether issuance of the stay will
4 substantially injure the other parties interested in the proceeding; and (4) where the public
5 interest lies.” *Nken*, 129 S. Ct. at 1761. The Ninth Circuit has interpreted the public interest
6 factor to require balancing the equities of the relative stay factors. *Leiva-Perez v. Holder*, 640
7 F.3d 962, 965 (9th Cir. 2011). The party requesting a stay bears the burden of showing that the
8 circumstances justify an exercise of that discretion. *Nken*, 129 S. Ct. at 1761.

9 Defendants attempt to avoid this burden. They ignore that the party requesting a stay
10 must make a “threshold showing regarding irreparable harm,” and that without this showing “a
11 stay may not issue.” *Leiva-Perez*, 640 F.3d at 968 (citing *Nken*, 129 S.Ct at 1760-61).
12 Defendants also mistakenly believe they may avoid their burden to show a likelihood of success
13 on appeal by instead showing “serious questions” on the merits. Doc. 1032-1 at 4-5. An
14 injunction may be appropriate if an applicant can show “serious questions” on the merits if it
15 carries its burden on the other three factors and if the balance of hardships “tips sharply” in its
16 favor. *Alliance for Wild Rockies v. Cottrell*, 632 F.3d 1127, 1135 (9th Cir. 2011). Here, this test
17 requires at a minimum that Defendants show a “substantial case for relief on the merits,” which
18 they cannot do. *Leiva-Perez*, 640 F.3d at 966. Defendants must establish that they are likely to
19 succeed on the merits of the appeal, which will be reviewed under an abuse of discretion
20 standard. *Thalheimer v. City of San Diego*, 2010 WL 1201885 at *2 (S.D. Cal. 2010).
21 Defendants cannot demonstrate a likelihood of success under this standard. Ultimately, none of
22 the applicable factors weigh in favor of a stay, and the Court should therefore deny Defendants’
23 motion.

24 **III. ARGUMENT**

25 **A. FEDERAL DEFENDANTS HAVE FAILED TO SHOW A LIKELIHOOD** 26 **OF SUCCESS ON THE MERITS**

27 Plaintiffs already have prevailed on the merits of their claims that Defendants violated the
28 Endangered Species Act (“ESA”) and Administrative Procedure Act (“APA”). *See* Doc. 757

1 (Memo. Decision re Cross Mots. for Summ. J.). Specifically, the Court found that Plaintiffs
2 were entitled to summary judgment because the Fall X2 Action was based upon comparisons of
3 disparate data sets, which invited bias into the evaluation of the component's propriety, and
4 because the BiOp failed to explain the basis for the specific location requirements of the Fall X2
5 Action. *Id.* at 100-104, 124-126, 220-221. The Court also concluded that the Bureau of
6 Reclamation ("Reclamation") violated the National Environmental Policy Act ("NEPA") by
7 failing to perform any NEPA analysis prior to provisionally adopting and implementing the
8 BiOp and its RPA, including the Fall X2 Action. Doc. 457 (Order Granting and Denying Cross-
9 Mots. for Summ. J. on NEPA Issues) at 2:11-15; *see also* Doc. 399 (Memo. Decision re Cross-
10 Mots. for Summ. J. on NEPA Issues). Thus, the merits of the Fall X2 Action have already been
11 resolved in Plaintiffs' favor.

12 Defendants' request for a stay pending appeal presents only a non-specific reference to
13 several documents in their moving papers and then perfunctorily adds that "[a]t the very least, in
14 those papers, the Defendant parties have presented several 'serious legal question[s]' to be
15 resolved on appeal, which is all that is require to obtain a stay." Doc. 1032-1, 7:1-3 (citation
16 omitted). Plaintiffs are unable to speculate—and, the Court should not either—as to what the
17 "serious legal question" is that "has been raised" or how the Court can find that such an
18 unspecified question warrants the grant of a stay. Defendants had an obligation to fairly describe
19 the legal questions they believe will enable them to be likely to prevail on appeal, and they failed
20 to do so. Indeed, they have not described any such question at all. Defendants' simple request
21 for a "do over" ignores that Plaintiffs have prevailed on the merits of the issues presented in their
22 motion, and that Defendants bear the burden of showing that the circumstances justify a stay.
23 *Nken*, 129 S. Ct. at 1761.

24 **B. IMPOSITION OF THE FALL X2 ACTION WILL LIKELY RESULT IN**
25 **IRREPARABLE HARM TO PLAINTIFFS**

26 Defendants assert that "Plaintiffs cannot make [the] showing" of substantial harm during
27 the pendency of an appeal. Doc. 1032-1 at 7:8. As this Court is aware, Defendants' assertion is
28 baseless. The State's expert, Mr. Leahigh, and Federal Defendants' expert, Mr. Milligan, both

1 opined that the SWP will suffer water supply impacts of approximately 300,000 acre feet in all
2 but wet years if the Fall X2 Action is implemented at kilometer 74. Doc. 1006, ¶ 8; *see also*
3 Doc. 1003 (Milligan Suppl. Decl.), ¶ 12. In order to provide this Court with the most precise and
4 up to date information regarding the water supply impacts of the Fall X2 Action, these
5 calculations were recently confirmed by both experts. *See* Docs. 1038-1 and 1032-3.
6 Specifically, Mr. Leahigh’s calculations indicated “SWP export impacts in the October and
7 November period of slightly greater than 300 [thousand acre feet] for compliance with an X2
8 target of 74 km.” Doc. 1038-1, ¶ 28. Similarly, Mr. Milligan stated that the “hydraulic
9 conditions and estimates of water supply costs associated with managing Project operations to a
10 monthly average Fall X2 of either 74 km or 79 km remain consistent with the water costs
11 estimates outlined in my supplemental declaration and the supplemental declaration of John
12 Leahigh.” Doc. 1032-3, ¶ 4. Thus, the evidence in the record shows that the Fall X2 Action will
13 consume hundreds of thousands of acre feet of water, at a tremendous cost to SWP contractors
14 and their customers. Indeed, the Court agreed and already found that “Plaintiffs have established
15 the likelihood of irreparable harm.” Doc. 1013 at 138.

16 Defendants attempt to downplay these water export losses by asserting that water storage
17 impacts “will be made up by future rainfall.” Doc. 1032-1 at 7:13-14. But, whether or not
18 upstream impacts are recovered in 2012 does nothing to change the fact that over 300,000 acre
19 feet of water is likely to be lost if the Fall X2 Action is implemented at kilometer 74. That is,
20 any potential ability to recover *upstream* losses is entirely independent of the *export* losses that
21 will almost certainly occur. Moreover, Federal-Defendants’ observation that the Fall X2 Action
22 “will not result in any water supply impacts to either SWP or CVP users in 2011” is irrelevant
23 for purposes of evaluating the irreparable harm that is likely to be suffered by Plaintiffs in 2012
24 if the Fall X2 Action is not enjoined. Doc. 1032-1 at 7:9-10. In other words, an alleged lack of
25 harm in 2011 has no bearing on or relevance to the irreparable harm (i.e., the water supply
26 impacts) that the SWP contractors will suffer going forward in 2012 if the Fall X2 Action is
27 implemented at kilometer 74. *See, e.g.*, Tr. 7/28/11, 82:8-24 (Erlewine).¹

28
² Plaintiffs have addressed the remaining flaws in Federal Defendants’ arguments in prior briefings, and these are {00336264}

1 Defendants further assert that “[a]ny water supply impacts to SWP users in 2012 are
2 speculative.” Doc. 1032-1 at 7:12-13. Defendants support their contention by citing to several
3 pages of Defendants’ Proposed Findings of Fact and Conclusions of Law, (Doc. 1032-1 at 7
4 (citing Doc. 1004 at 14-17)), which were not adopted by the Court. For example, Defendants
5 question whether SWP contractors, including Metropolitan and KCWA, will have the ability to
6 store the water that would be available if the Fall X2 Action is enjoined. *See, e.g.*, Doc. 1004, ¶
7 66. Yet, Defendants ignore the extensive evidence confirming that “SWP Contractors have
8 sufficient storage available to take advantage of any additional water that may be delivered if the
9 Fall X2 Action is modified or enjoined.” Doc. 1013 at 127. As described by Mr. Terry Erlewine
10 in his supplemental declaration, Metropolitan’s groundwater replenishment program for its
11 member agencies is anticipated to have reached the authorized level of 225,000 acre-feet for the
12 year by the end of September 2011. Suppl. Erlewine Decl., ¶ 4. The fact that Metropolitan will
13 be able to complete the authorized volume of groundwater replenishment deliveries by this
14 September, leaving unfilled requests, means that Metropolitan has at least as much space as
15 previously expected to store any water that becomes available due to enjoining the Fall X2
16 Action. *Id.* Similarly, KCWA’s direct water use and in-lieu groundwater recharge programs
17 have also continued at high levels, with SWP water being used in increasing amounts as Kern
18 River runoff declines. *Id.* As such, the evidence shows that KCWA has adequate space in its
19 groundwater storage programs to store more than the maximum amount of SWP water that it will
20 lose if the Fall X2 Action is implemented. *Id.*; *see also* Tr. 7/28/11, 41:3-42:15 and 47:13-49:4
21 (Erlewine); Pl. Exh. 137 (Erlewine Reply Decl.), ¶ 5; Doc. 1033 at 5-7. Thus, as explained by
22 Mr. Erlewine, Metropolitan and KCWA have the capability to accept the SWP supplies that are
23 likely to be made available if the Fall X2 Action is enjoined. *Id.*

24 Defendants also support their contention that water supply impacts are “speculative” by
25 referencing their prior assertion that “[i]f the state share of storage in San Luis Reservoir fills,
26 that would reduce the impact of Action 4.” Doc. 1032-1 at 7; Doc. 1004, ¶ 63. As demonstrated
27 most recently by Mr. Leahigh’s testimony, this contention lacks merit. As Mr. Leahigh explains,

28
incorporated by reference. *See* Docs. 1005 and 1009; *see also* Doc. 1037.
{00336264}

1 “the overall net delivery capability of the SWP (2011 Table A, 2012 Table A, and Article 21
2 water) will be impacted in a volume equal to the level of export reductions this fall independent
3 of whether or not the SWP fills its share of the San Luis Reservoir.” *Id.* at ¶ 31. Thus, the filling
4 of San Luis Reservoir, assuming such action occurs, would have no effect on the water losses
5 that are likely to occur if the Fall X2 Action is implemented. *Id.* at ¶¶ 30-32.²

6 In sum, as this Court found, and uncontradicted evidence shows, “it is more likely than
7 not that at least a 300,000 AF impact to SWP deliveries in 2012 will occur, as only in a wet year
8 will less impact occur.” Doc. 1013 at 94; *see also* Docs. 1038-1 and 1032-3.

9 **C. FEDERAL DEFENDANTS HAVE FAILED TO SHOW THAT**
10 **IRREPARABLE HARM TO DELTA SMELT IS LIKELY IF THE FALL**
11 **X2 ACTION IS NOT ENJOINED**

12 According to the Defendants, “no water costs or foregone pumping or storage
13 opportunities under Action 4 [will occur] until at least October 15, 2011.” Doc. 1032-1, 7:19-20.
14 But, Defendants fail to add that the 74 km X2 location—the location the Defendants proclaim as
15 “necessary” to avoid jeopardy and adverse modification of critical habitat— will be met
16 regardless of the Court’s injunction. No evidence or argument exists that conditions in the near
17 future will jeopardize the continued existence of the delta smelt or adversely modify its critical
18 habitat because the 74km requirement will be satisfied until mid-October. Consistently, DWR’s
19 most recent modeling efforts predict the water losses related to complying with the Fall X2
20 Action’s 74 km requirement will likely occur in October and November from pumping
21 curtailments. Doc. 1038-1 (Leahigh 3d Supp. Decl.), ¶¶ 27-28.

22 Nor has there been any showing that maintaining X2 at 79 km will cause irreparable
23 harm to the delta smelt. Relying on Frederick Feyrer’s declaration – and its direct contradictions
24 of his testimony previously given under oath at trial – the Defendants now argue that the
25 “centroid” of the smelt population tracks X2 movement to the 79 km mark, and that this
26 precludes the species from entering the shallow waters of Suisun Bay, Grizzly Bay, and Honker
27 Bay. Doc. 1032-1, 5:23-6:2; Feyrer Decl. ¶¶ 13, 14, 15. Not only is this argument directly

28 ² Plaintiffs have addressed the remaining flaws in Federal Defendants’ arguments in prior briefings, and these are
incorporated by reference. *See* Docs. 1005 and 1009; *see also* Doc. 1037.
{00336264} - 6 -

1 contrary to the Court’s findings; it squarely contradicts Mr. Feyrer’s sworn testimony that “when
 2 X2 is located west of the confluence, that opens up the low salinity zone and delta smelt habitat
 3 to those broad shoals in Suisun Bay and other areas, so there’s just a lot more and a lot more
 4 suitable habitat for smelt.” Doc. 1013, at ¶ 42, p. 30 (citing Tr. 7/28/11 at 122:9-16). It also is
 5 incompatible with his statement—under oath—that Grizzly and Suisun Bays would be available
 6 habitat – and used by delta smelt – when X2 is maintained at 79 km or even above the
 7 confluence of the Sacramento and San Joaquin Rivers, which is located at approximately 80 km.³
 8 Tr. 7/28/11 at 213:8-19 (Feyrer). In short, Mr. Feyrer’s statements at trial cannot be reconciled
 9 with those in this latest declaration, which incomprehensibly now assert that locating X2 at 79 or
 10 80 km somehow limits delta smelt access to the areas of Suisun Bay, Honker Bay and Grizzly
 11 Bay and that these areas are now not.

12 The Court has already found that although the center of delta smelt distribution is
 13 generally located around the two parts per thousand isohaline, the geographic range of delta
 14 smelt distribution generally spans approximately 40 kilometers from Suisun Bay and Grizzly
 15 Bay in the west to the Cache Slough Complex in the north, and this broad smelt distribution does
 16 not shift dramatically as X2 shifts. Doc. 1013, ¶¶ 26, 30, 31(d), pp. 19, 21, 24. The evidence
 17 supports the Court’s finding that “[t]here is essentially no biological evidence to support the
 18 necessity of the specific 74 km requirement” Doc. 1013, 139:10-12. When contrasted with
 19 the statements in his most recent declaration, the evidence also illustrates the lengths Mr. Feyrer
 20 has gone to support the imposition of fall X2, whether or not its imposition is consistent with the
 21 best available scientific data.

22 **1. Testimony of Frederick V. Feyrer**

23 The Court questioned the credibility of Mr. Feyrer’s testimony during the July 2011
 24 preliminary injunction hearing. Doc. 1013, at 44:17-19 (“This disassembling calls Mr. Feyrer’s
 25 credibility into question. His scientific objectivity is compromised by inconsistency.”). Mr.
 26 Feyrer’s most recent declaration, Doc. 1032-5, is plagued by similar inconsistency and
 27

28 ³ It can also be inferred that Honker Bay is included because it is the most upstream of the three bays. Feyrer Decl.
 10:8-9 (Doc. 1032-5).
 {00336264}

1 disassembling that should be afforded no credibility or weight.

2 a. **Inconsistencies Regarding Whether Setting X2 at 79K Provides**
3 **Sufficient Smelt Habitat**

4 Mr. Feyrer's most incredible statements in his latest declaration are as follows:

5 My testimony in this matter is not consistent with a finding that
6 positioning X2 at 79 or 80 km would provide sufficient habitat
7 quality for delta smelt during the fall relative to position to
8 positioning X2 at 74 km.

9

10 If X2 is set at 79 or 80 km, most of the delta smelt population will
11 not align with the shallow, biologically productive, turbid waters
12 of Suisun Bay, Grizzly Bay, and Honker Bay. Thus, positioning
13 X2 at 79 or 80 km would provide far less habitat of sufficient
14 quality and quantity than it would positioned at 74 km.

15 Doc. 1032-5 ¶¶ 12, 15.

16 These statements contradict all of Mr. Feyrer's previous testimony. On direct
17 examination at the recent preliminary injunction hearing Mr. Feyrer testified:

18 When the X2 is located downstream of approximately 80,
19 downstream [of] the confluence of the Sacramento San Joaquin
20 rivers, X2 and low salinity zones are in those vast large shallow
21 base, those shoals of Suisun Bay, Grizzly Bay, Honker Bay, and so
22 there's a lot of area there. That's why the habitat index is bigger.
23 And then when you move upstream, above 80, approximately and
24 up into river channels, those river channels obviously are a lot
25 smaller, lot less area there.

26 Tr. 7/28/11 at 125:23 to 126:9.

27 In response to a question asked by the Court, Mr. Feyrer stated:

28 Q. [The Court] What if you were to use a less water intensive
application of this X2 model? For instance, at 79 kilometers, where
you would get areas that we discussed yesterday within the scope
of the ultimate objective, but not require as much water to do it,
would the same purposes be accomplished?

....

A. [Feyrer] with the above normal year standard 81, 81 is
pretty much near the bottom of the ascending limb of that curve.
And that's about the minimum point where you get out of that
lower tier of habitat conditions.

1 Tr. 7/29/11 at 27:10-15, 29:12-15.

2 There were numerous instances on cross examination where Mr. Feyrer asserted that
3 setting X2 at 79 or 80 km opened up the preferred Suisun, Grizzly and Honker Bay habitat:

4 Q. [Sims] Okay. So when the -- what the data demonstrates, then,
5 is that when X2 is below the confluence, that opens up Suisun and
6 Grizzly; right?

6 A. [Feyrer] Yeah. As depicted in those habitat maps.

7 Tr. 7/29/11 at 193:4-7; *see also* Tr. 7/29/11 at 213:14-19 (“Q. If X2 was maintained at 79 K,
8 would Grizzly and Suisun Bays still be available habitat? A. Yes. Q. If X2 is above 80 K,
9 smelt still use Suisun Bay, don't they? A. Yes.”)

10 Mr. Feyrer's pre-hearing declarations are also inconsistent with statements in his most
11 recent declaration:

12 As can be seen in Figure 3 (this figure is taken directly from Feyrer
13 et al. 2011), when X2 is located downstream of the *confluence*
14 there is a larger area of suitable habitat because the low salinity
15 zone encompasses the expansive Suisun and Grizzly Bays, which
16 results in a dramatic increase in the habitat index. In contrast, when
17 X2 is located upstream of the confluence, habitat is restricted to the
18 smaller river channels.

17 Doc. 944 (Dec. of Frederick V. Feyrer in Supp. of Defs.' Opp. to Pltfs.' Mot. for Inj. Relief) ¶ 12
18 (emphasis added).

19 In Reclamation's Adaptive Management Plan, authored by Mr. Feyrer, there is a similar
20 statement about the suitability of habitat when X2 was located at the confluence:

21 This range in X2 corresponds to a geographic area that straddles
22 the confluence of the Sacramento and San Joaquin rivers, which is
23 located at approximately 80 km. When X2 is located downstream
24 of the confluence there is a larger area of suitable habitat because
25 the low salinity zone encompasses the expansive Suisun and
26 Grizzly Bays and Suisun Marsh, which results in a dramatic
27 increase in the habitat index (Figure 5).

25 Adaptive Management Plan at 10.

26 Mr. Feyrer's new testimony that positioning X2 at 79 or 80 km would not provide
27 sufficient habitat quality for delta smelt lacks credibility and should be rejected by the Court
28 because of Mr. Feyrer's inconsistency with his prior testimony and written statements.

1
2 **Dr. Burnham’s Analysis of Feyrer’s New Theory That Setting**
3 **X2 at 79 km Does Not Provide Sufficient Delta Smelt Habitat**

4 Dr. Burnham rejects the notion that the habitat created when X2 is located at 79 km is not
5 sufficient for the delta smelt. At the recent hearing, Mr. Feyrer stated that he did not believe that
6 delta smelt were currently habitat limited “in terms of salinity and water transparency,” the two
7 variables that define his “habitat index.” (Burnham Decl. ¶ 16.) Mr. Feyrer’s colleague, Mr.
8 Nobriga, agreed that delta smelt are not currently habitat limited “from a two variable
9 perspective.” *Id.* Mr. Feyrer’s “habitat index,” which was limited to two abiotic habitat
10 variables due to Mr. Feyrer’s methodological choices, can only speak to salinity and turbidity.
11 *Id.* If delta smelt are not currently habitat limited by those factors, then Mr. Feyrer has no basis
12 for his assertion that delta smelt require vastly more access to areas of salinity and turbidity
13 conditions he believes are important. *Id.*

14 Dr. Burnham explains the importance of habitat limitation by noting that Figure 2 in Mr.
15 Feyrer’s declaration demonstrates that when X2 is at 79 km, the “habitat index” is approximately
16 5,600. *Id.* ¶ 17. Mr. Feyrer’s declaration shows that “habitat index” values at or below 5,600
17 have supported FMWT abundance indices of 899 (1995), 864, (1999), 756 (2000), etc. *Id.* at ¶
18 16. Dr. Burnham concludes that since in 2010 the FMWT was at 29, it does not appear that delta
19 smelt will be constrained this year by the habitat variables used in Mr. Feyrer’s “habitat index” if
20 the location of X2 is set at 79 km. *Id.*

21 **Drs. Hanson, Burnham, and Deriso Rebut Feyrer’s**
22 **Contentions That the Court Erred in its Ruling Granting**
23 **Preliminary Injunction**

24 In addition to articulating his new theory about the sufficiency of smelt habitat, Mr.
25 Feyrer re-argued six points relating to the Court’s injunction ruling. Drs. Hanson, Burnham, and
26 Deriso show in their declarations that the Court was not in error, and that Mr. Feyrer is either
27 mistaken or he has distorted the record in an effort to cast doubt on the Court’s ruling.

28 (1) Extinction Scenarios

 Mr. Feyrer disputes the Court’s finding that he was inconsistent in his testimony

1 concerning a potential flaw in his 2008 model that resulted in its routine prediction of negative
 2 smelt abundance. Doc. 1032-5, ¶¶ 24-26. In essence Mr. Feyrer argues that he was "consistently
 3 inconsistent" and therefore the Court erred in calling his credibility into question. Dr. Deriso
 4 addresses this argument in detail (Deriso Decl. ¶¶ 13-17), noting that in his live testimony, Mr.
 5 Feyrer was definitive that the prediction of negative smelt abundance was an extinction scenario
 6 than he portrayed in his declaration. *Id.* ("Q. So when the model runs went into a negative
 7 abundance, that would be a potential extinction scenario? A. Yes." Tr. 7/29/11 at 88:23-25.).
 8 Dr. Deriso, however, then points out Mr. Feyrer's inconsistency: "Not only did Feyrer (2008)
 9 reject the possibility that the negative abundance values represented an extinction scenario, but it
 10 also *tested* whether that was possibly the case." *Id.* ¶ 15. Feyrer (2008) analyzed and *rejected*
 11 this extinction scenario hypothesis as unsupported by the data. (*Id.*; AR 018289 ("increasing the
 12 initial number of adult fish in the fall, even to 1,000, did not noticeably affect the
 13 probabilities.")) Mr. Feyrer is "disassembling" when he now asserts otherwise.

14 (2) Correlation of the Fall Midwater Trawl with the Habitat
 15 Index

16 Mr. Feyrer states in his declaration that the Court improperly criticized his use of FMWT
 17 trawl data in both axes of the graph of FMWT abundance and the "habitat index." Feyrer Decl.,
 18 ¶ 17. According to Mr. Feyrer, the Court's criticism "is not valid." (*Id.*) Mr. Feyrer states: "the
 19 variables are constructed with *different data* (one is abundance data and the other is water quality
 20 data)" (*Id.*) (Emphasis added) This is, at best, highly misleading. The variables used in the two
 21 axes are not constructed from two entirely separate and independent data sources. As Dr.
 22 Burnham explains, the "habitat index" on the x-axis uses a probability of occurrence calculation
 23 that derives from the exact same abundance data that is used in the FMWT abundance index on
 24 the y-axis. By stating that the two axes are derived from supposedly "different" water quality
 25 and abundance data, Mr. Feyrer either does not understand his "habitat index" model, or he is
 26 trying to whitewash the induced correlation defect that the Court has identified.

27 Mr. Feyrer also states that "[r]egardless, any criticisms of this plot [*i.e.*, the graph of
 28 FMWT index against the "habitat index"] do not impact the reliability of the habitat index itself,

1 as the habitat index is just one of the input variables given in the plot and *does not depend on any*
2 *conclusions drawn from this plot.*” (¶ 17 (emphasis added).) This is not true. Mr. Feyrer and the
3 FWS based their claim regarding the utility and importance of the “habitat index” on its ability to
4 explain subsequent delta smelt abundance. As Dr. Burnham states: “finding that the purported
5 correlation between the ‘habitat index’ and the FMWT abundance index is the inevitable result
6 of an induced correlation derived from the data structure itself *does* profoundly impact the
7 reliability of the ‘habitat index’ itself, and any utility it might otherwise have had in justifying
8 the Fall X2 Action.” (Burnham Decl. ¶ 22 (emphasis in original).)

9 (3) Uncertainty in Feyrer 2008 and 2011 Index

10 Dr. Burnham also supports the Court’s finding (citing the NRC report) that Defendants
11 failed to adequately address the critique that it was scientifically improper for Mr. Feyrer to
12 chain the results of multiple modeling efforts together without accounting statistically for the
13 error introduced at each step. Burnham Decl. ¶¶ 23-24. Mr. Feyrer insists that such an
14 accounting is performed throughout Feyrer (2011) and that “several figures and tables are
15 provided to explicitly demonstrate the statistical uncertainty associated with every analysis” in
16 the paper. According to Dr. Burnham this statement is simply false. Burnham Decl. ¶23. Mr.
17 Feyrer is unable to provide a page number to indicate where in Feyrer (2011) such an accounting
18 for statistical uncertainty is performed. *Id.* The NRC also did not recognize the uncertainty
19 analysis Mr. Feyrer claimed to have performed, concluding instead that “the examination of
20 uncertainty in the derivation of the details of this action lacks rigor.” NRC report at 41.

21 (4) Analysis of Turbidity in the Habitat Index

22 In paragraphs 19 to 21 of his recent declaration, Mr. Feyrer claims that the Court’s
23 finding that “Feyrer (2011) does not provide a basis for calculating the portion of the variation in
24 the delta smelt abundance index attributable to salinity as a stand-alone variable” is incorrect
25 because Feyrer (2007) and Feyrer (2011) “did isolate salinity from turbidity” and “[t]he GAM
26 concluded that salinity accounts for most of the variability in delta smelt catch, rather than
27 turbidity.” Doc. 1032-5, ¶¶ 19-21.

28 Dr. Burnham has reviewed this argument and concluded that it is highly misleading.

1 Although Feyrer (2007) and (2011) did separately analyze the proportion of variation in delta
2 smelt presence/absence caused by turbidity and salinity, the model calculating the habitat index
3 did not do a separate analysis. Burnham Decl. ¶ 25.

4 Dr. Burnham further observes that it is not correct, as Mr. Feyrer states, that Feyrer
5 (2011) found that “salinity accounts for *most* of the variability in delta smelt catch, rather than
6 turbidity.” *Id.* Feyrer (2011) clearly states that specific conductance [salinity] and Secchi depth
7 [turbidity] accounted for roughly the same amount of the variability, which is why both variables
8 were included in the model, hence neither accounted for “most” of the variability in delta smelt
9 catch. *Id.* (citing Feyrer (2011) at 4 (p. 123)). In reality, “most” of the variability was
10 unexplained by Mr. Feyrer’s model.

11 (5) Use of Core Stations and Tidal Mixing

12 Mr. Feyrer contends that the Court was in error in its analysis of the significance of the
13 smelt population recently discovered in Cache Slough, Liberty Island, and the Sacramento
14 Deepwater Ship Channel. Doc 1032-5, ¶ 22-23. The Court found that while Mr. Feyrer testified
15 that the maps depicting the habitat index encompass Cache Slough, Liberty Island, and the
16 Sacramento Deepwater Ship Channel, Mr. Feyrer admitted on cross-examination that the core
17 stations he used to develop the habitat index were all downstream of these sites. Because of this
18 conflicting testimony, the Court found that Mr. Feyrer did not accurately identify the full extent
19 of the smelt habitat that was relevant to the reliability of the justification provided for the specific
20 74 km X2 standard. Doc. 1013 at 39:2-18.

21 Dr. Burnham concludes that including the data on fish catches in Cache Slough and the
22 Sacramento Deepwater Ship Channel would likely have had a significant effect on the analysis in
23 the “habitat index” of habitat variables and smelt presence/absence. (Burnham Decl. ¶ 27.) He
24 further states that it is quite likely, given that the Cache Slough and Sacramento Deepwater Ship
25 Channel areas are predominantly freshwater, that correlation between salinity and smelt
26 presence/absence would have been considerably weaker. *Id.* Additionally, Dr. Burnham finds
27 that Mr. Feyrer’s tidal mixing justification was not supported by data. In his declaration, Mr.
28 Feyrer argues that “water quality measures taken at the ‘core’ sampling stations are *accurate*

1 *measurements* of water quality in Cache Slough, the Liberty Island area, and part of the
2 Sacramento Deep Water Ship Channel.” (Doc. 1032-5 ¶ 23.) And yet in testimony Mr. Feyrer
3 only speculated that water quality measurements at the core stations were “probably really
4 similar” to those in Cache Slough and the Sacramento Deepwater Ship Channel, even though
5 those areas are over five kilometers away from the nearest core station. Tr. 7/28/11 at 124:18-
6 22. Dr. Burnham points out Mr. Feyrer’s hypocrisy in tolerating extreme imprecision in some
7 data, but then claiming the results of his overall analysis are precise down to the kilometer. *Id.*

8 (6) Analysis of Life Cycle Modeling

9 Mr. Feyrer claims that none of the three life-cycle models published since the 2008
10 BiOp—Maunder & Deriso (2011), Thomson et al. (2010), and Mac Nally et al. (2010)—
11 “undermine or contradict any of the Feyrer papers,” but rather are “entirely consistent” with the
12 Feyrer papers. Doc. 1032-5, ¶¶ 27-29. Mr. Feyrer attempts to explain away the consistent
13 finding of the three life-cycle models that Fall X2 has no statistically significant effect on
14 subsequent delta smelt abundance by arguing that the models looked at the effect of X2 over the
15 entire history of the data set, when X2 was only designed to operate in wet and above normal
16 years. *Id.* Dr. Deriso disposes of Mr. Feyrer’s latest theory, explaining that Feyrer (2007),
17 (2008), and (2011) all used the full range of FMWT, regardless of year-type.

18 Mr. Feyrer also claims that “Feyrer (2008) is the only modeling effort that models the
19 effects of implementing Action 4.” (Doc. 1032-5 ¶ 29.) As Dr. Deriso explains, this is simply
20 false. (Deriso Decl. ¶ 20.) Feyrer (2008) does *not* model the effects of implementing Action 4.
21 Feyrer (2008) evaluated four scenarios, none of which represented Action 4 (AR 018288.)
22 Moreover, Feyrer (2008) did not model the effect of implementing the action during only wet or
23 above-normal years, and it did not model the projected effects of maintaining X2 at 74 km and
24 81 km. The vast majority of Mr. Feyrer’s testimony is simply not credible.

1 **2. Testimony of Jennifer Norris**

2 **a. Dr. Norris' Assertion that the Delta Smelt Will Be Threatened**
 3 **with Extinction Unless the Court's Order Regarding the Fall**
 4 **X2 Action is Stayed Pending Appeal Is Utterly Lacking in**
 5 **Credibility**

6 The declarations filed by Defendants in support of their effort to stay the Court's Order
 7 Against Full Implementation of RPA Component 3 are notable for their extreme characterization
 8 of the consequences that will purportedly befall the delta smelt in the event that X2 moves
 9 easterly of km 74 in 2011. Particularly notable in this regard is the declaration of Dr. Norris,
 10 (Doc. 1032-4) ("Norris Decl."), which contains the remarkable statements that "implementation
 11 of the Fall X2 Action [at km 74] may represent the last opportunity to prevent extinction of a
 12 species unique to California." (*id.* at ¶ 4) and that maintaining X2 at 79 km rather than at 74 km
 13 as required by the Fall X2 Action would place the delta smelt at greater risk of extinction and
 14 therefore worsen the jeopardy condition of the species articulated in the BiOp" (*id.* at ¶ 17).

15 These extreme claims are unsupported by the best available science, inconsistent with the
 16 prior testimony of Defendants' own witnesses, and incompatible with the Revised Adaptive
 17 Management Plan filed by Defendants with this Court just last month. In light of the
 18 uncontested statements of Mr. Leahigh that *the monthly average location of X2 will be at km 74*
 19 *in September and at km 75-77 in October* of 2011, they border on the absurd. Indeed, when
 20 purported delta smelt "habitat" found in the Cache Slough Complex is considered, rather than
 21 ignored as it was in the BiOp, the volume of delta smelt "habitat" that results when X2 is located
 22 at km 79 is virtually indistinguishable from the volume of "habitat" identified in the BiOp as
 23 necessary for the protection of the delta smelt.

24 (1) No Science Supports the Claim that a Shift in the Location
 25 of X2 From km 74 to km 79 Will Threaten the Delta Smelt
 26 With Extinction

27 As explained in the accompanying Declaration of Charles Hanson ("Hanson Decl."), the
 28 state of the science regarding the delta smelt and, in particular, the effect upon the smelt of the
 location of X2 in the fall months does not lend support to the overbroad statements made by Dr.
 Norris. Hanson Decl., ¶¶ 3-4. The available data do not show that the location of X2 in the

1 months of September and October bears any relation to the productivity of the species, its
2 abundance or the availability of the smelt's preferred food sources. *Id.* at ¶¶ 4, 9, 10. This is
3 particularly true when the maximum shift in the location of X2 under the Court's injunction is
4 only five kilometers. As Dr. Hanson describes, even if the SWP and CVP were required to
5 maintain X2 at km 74, the available data show that the regular, occurrence of the tidal cycle
6 results in an east/west movement of X2 that is several kilometers on a *daily* basis. *Id.* at ¶ 10.
7 Further, as Dr. Hanson describes, the available data fail to show there is any meaningful change
8 in the abundance, distribution, reproduction or food availability for the delta smelt within the five
9 kilometer reach found between kilometers 74 and 79. *Id.* at ¶¶ 9-11. If there were a meaningful
10 difference in any of these factors, that difference would be reflected in a distinct shift akin to a
11 "hockey stick" relationship; but, as Dr. Hanson describes, the available data fail to demonstrate
12 such a shift. *Id.* The lack of such data and the unrebutted testimony of Mr. Leahigh that the shift
13 in X2 in 2011 will be zero in September and 3-5 kilometers at most in October, has led Dr.
14 Hanson to conclude that failing to limit X2 to km 74 this fall will not appreciably reduce the
15 delta smelt's abundance or adversely modify its critical habitat. *Id.* at ¶¶ 4, 6, 9, 12.

16 The available science also fails to support Defendants' claim of potential extinction when
17 the duration of X2 at km 79 is measured in days or, at most, weeks--as it will be in 2011. As
18 explained in Mr. Leahigh's Third Supplemental Declaration (Doc. 1038) ("Leahigh Decl."), X2
19 was located at km 73 as of September 7, 2011 and the average location of X2 throughout the
20 month of September is expected to be at km 74. Leahigh Decl., ¶¶ 9, 22. In October, the
21 average location of X2 is expected to be between km 75 and 77. *Id.* at ¶ 23. Thus, X2 during the
22 fall of 2011 is likely to be easterly of km 74 for a matter of days or, at most, weeks. As Dr.
23 Hanson explains, no available scientific data whatsoever suggest the delta smelt will be
24 threatened with extinction when X2 is shifted marginally to the east of km 74 by 0-3 km over
25 such a brief period of time. Hanson Decl., ¶¶ 4, 9.

1 (2) Defendants' Claim that Locating X2 Easterly of Km 74
2 Will Threaten the Delta Smelt With Extinction Is
3 Inconsistent With the Prior Testimony of Defendants' Own
4 Witnesses and Revised Adaptive Management Plan

5 Defendants' assertion that locating X2 easterly of km 74 in September and October of
6 2011 will threaten the delta smelt with extinction is flatly inconsistent with the prior testimony
7 that Defendants' own witnesses presented to the Court. It is also incompatible with the
8 Defendants' Revised Adaptive Management Plan, filed with the Court last month. Doc. 1002.

9 During his testimony to the Court in connection with Plaintiffs' request for injunctive
10 relief with respect to the fall X2 Action, Mr. Feyrer was asked the following:

11 "Do you disagree with the authors of this plan [Draft Adaptive
12 Management Plan] that the expected effect of fall X2 at kilometer
13 81 is uncertain?"

14 In response, Mr. Feyrer was unequivocal in his concurrence with the Draft Plan:

15 "No."

16 Tr. 7/29/11, 846:1-4.

17 Mr. Feyrer was then asked the following:

18 "[C]an a biologist render a reliable opinion as to whether locating
19 fall X2 this year at km 81 will appreciably diminish delta smelt
20 abundance in the fall?"

21 Again, his responsive was unqualified:

22 "When all is said and done, I would say no."

23 Tr. 7/29/11, 847:15-18. Further, as the Court noted in its Findings of Fact, Defendants' witness
24 "Mr. Nobriga admitted, based on the three published [life-cycle] models, that the 40 years of
25 historical data do not support a correlation between the location of X2 in the fall and delta smelt
26 abundance." Doc. 1013, p. 47 ¶ 84, citing Tr. 7/29/11, 141:5-15 (Nobriga testifying "I think in
27 terms of the historical data, that the three models probably indicate . . . that you're not going to
28 find a correlation out of the historical data"); accord Tr. 7/29/11, 137:6-9, 140:11-13, 141:5-15.

Defendants do not describe any new scientific data developed since the conclusion of the preliminary injunction hearing that are sufficient to explain away the following testimony—also

1 provided by Mr. Feyrer:

2 When X2 is located downstream of approximately 80, downstream
3 [of] the confluence of the Sacramento San Joaquin rivers, X2 and
4 low salinity zones are those vast large shallow base, those shoals of
5 Suisun Bay, Grizzly Bay, Honker Bay, and so there's a lot of area
6 there. That's why the habitat index is bigger."

7 Tr. 7/28/11, 125:25-126:5. Rather than describing any newly developed science that would
8 counter Mr. Feyrer's testimony that "vast" areas of habitat in Suisun, Honker and Grizzly bays
9 are available for the delta smelt when X2 is even more easterly than the km 79 location
10 prescribed in the Court's Order, Dr. Norris, instead, simply makes the unsupported assertion that,
11 "implementation of the Fall X2 Action [at km 74] may represent the last opportunity to prevent
12 extinction of a species unique to California." Norris Decl., ¶¶ 17, 23, 38, 39. In light of Mr.
13 Feyrer's testimony—along with the testimony provided by Drs. Hanson, Deriso and Burnham,
14 her bald assertion is simply not credible. Rather it continues to demonstrate the obstinacy of a
15 regulator who refuses to be dissuaded by the facts—even if the facts are presented in the form of
16 testimony offered by another Federal employee.

17 Dr. Norris' apocalyptic claims of "extinction" also fail to square with the conclusions
18 reached by Defendants in their Revised Adaptive Management Plan filed with the Court on
19 August 10, 2011 (Doc. 1002). There, the Defendants expressly considered the possibility of
20 locating X2 at km 81 in above normal years and stated the following:

21 The use of an 81 km target for falls after above normal years
22 provides about 50% more of the abiotic habitat benefits than
23 maintaining X2 at 86 km and at present represents a *reasonable*
24 *intermediate action* to restore late post-reservoir period salinity
25 conditions in the fall.

26 Doc. 1002-2, p 16 of 98 (emphasis added).

27 Nor can Dr. Norris' claims of extinction be considered credible in light of the belief
28 expressed by the authors of the Revised Adaptive Management Plan that:

[S]ome key questions will be most efficiently answered by
implementing the [X2] action in very different ways (within the
boundaries of prudence) in otherwise similar years and contrasting
the results. [] the best choice from a learning point of view would

1 be an alternative in which the action is not taken at all, with X2
2 instead managed so that it remains in the 84-86 km range during
the period in which the RPA targets would otherwise be in force.

3 Doc 1002-2, p. 26 of 98.

4 How locating X2 at km 81 can be considered a “reasonable intermediate action” and (at
5 km 86) the best choice from “a learning point of view” on the one hand but, at the same time, be
6 considered as an action that that will lead to the extinction of the species, on the other, is never
7 explained. Candidly, it stretches credulity to believe that the Revised Adaptive Management
8 Plan would promote alternative X2 locations that will lead to the extinction of the species; but, if
9 Dr. Norris is to be believed, that is precisely what it did. Plaintiffs would suggest that, contrary
10 to the dogmatic assertions of Dr. Norris, the authors of the Revised Plan simply lacked the
11 science to make any firm statement about the effect of locating X2 easterly of km 74; that they
12 saw a location such as km 81 as a reasonable action until more science could be developed and;
13 that one way of acquiring the necessary knowledge would be to *not* take any X2 action so that
14 the effects upon the smelt could be studied.⁴

15 (3) Dr. Norris’ Attempt to Rely Upon the NRC Report is
16 Unavailing

17 Dr. Norris attempts to rely on the National Research Council’s report, *A Scientific*
18 *Assessment of Alternatives for Reducing Water Management Effects on Threatened and*
19 *Endangered Fishes in California’s Bay Delta* (2010) to buttress her claim that implementing the
20 Fall X2 Action in 2011 is essential to the survival and recovery of the delta smelt. But the NRC
21 report is critical of the Fall X2 Action. Perhaps for this reason, Dr. Norris takes a single phrase
22 in the NRC report out of context to serve her purposes. In context, the phrase reads as follows:

23 _____
24 ⁴ Dr. Norris also posits that “moving X2 from 74 km to 79 km reduces the amount of good-quality LSZ habitat for
25 delta smelt by about one third during Fall months, which significantly reduces the effectiveness of the Fall X2
26 Action.” Doc. 1032-4, ¶ 15. However, this opinion is at odds with the testimony of Mr. Feyrer who stated that
27 “when X2 is located west of the confluence, that opens up the low salinity zone and delta smelt habitat to those
28 broad shoals in Suisun Bay and other areas, so there’s just a lot more and a lot more suitable habitat.” Tr. 7/28/11, at
122:9-16 (cited in Findings of Fact, ¶ 42). And, as noted above, it was Mr. Feyrer who testified that “[w]hen X2 is
located downstream of approximately 80, downstream [of] the confluence of the Sacramento San Joaquin rivers, X2
and low salinity zones are those vast large shallow base, those shoals of Suisun Bay, Grizzly Bay, Honker Bay, and
so there’s a lot of area there. That’s why the habitat index is bigger.” Tr. 7/28/11, 125:25-126:5.

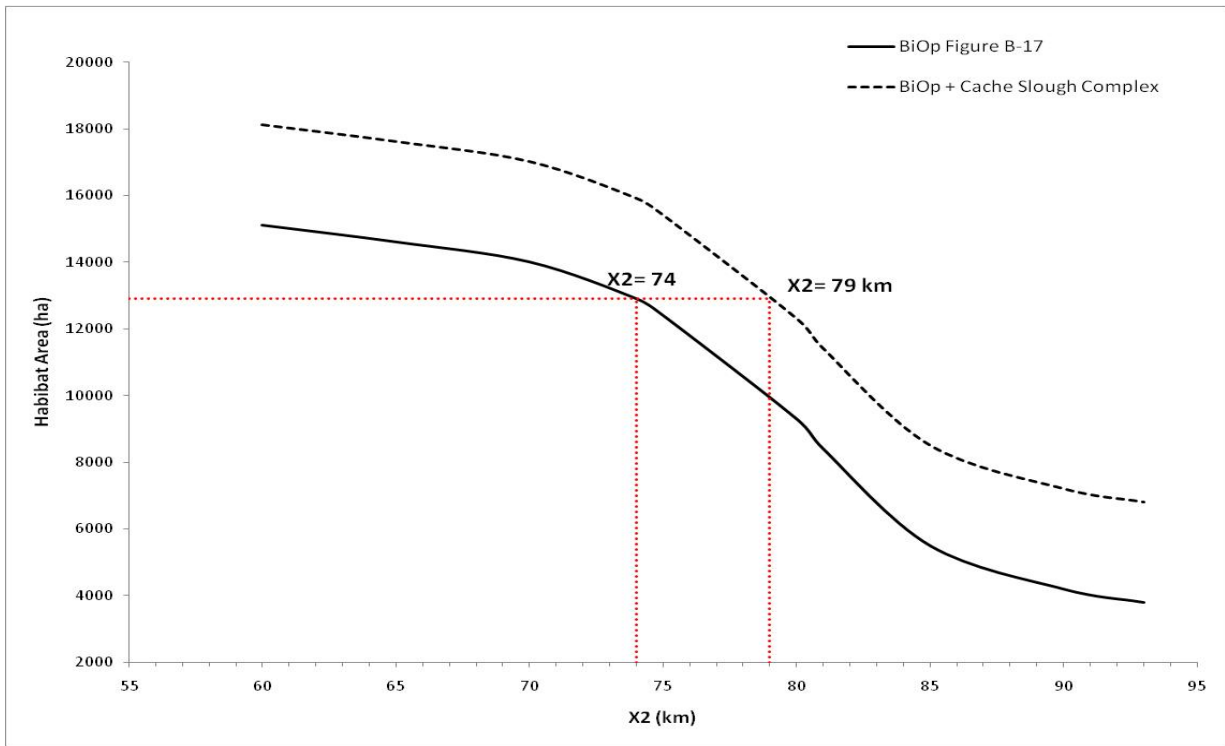
1 When the area of highly suitable habitat as defined by the
 2 indicators is low, either high or low FMT indices can occur. In
 3 other words, delta smelt can be successful even when habitat is
 4 restricted. More important, however, is that the lowest abundances
 5 all occurred when the habitat-area index was less than 6,000 ha.
This could mean that reduced habitat area is a necessary condition
for the worst population collapses, but it is not the only cause of
 the collapse. Thus, the relationship between the habitat and FMT
 indexes is not strong or simple.

6 *Id.* at 40 (emphasis added). In this paragraph the authors of the NRC report are describing the
 7 supposed scientific basis for the Fall X2 Action. Importantly, they note that delta smelt can be
 8 successfully “even when habitat is restricted,” and they describe the relationship between the
 9 habitat and abundance data as “not strong or simple.” In the subsequent paragraph of the NRC
 10 report, the authors provide their appraisal of the Act. *Id.* at 41. The NRC report is critical of the
 11 Fall X2 Action in many respect, but Dr. Norris is deaf to such criticism. Instead, when asked
 12 whether the NRC report affected her opinion regarding the need to implement the Fall X2 Action
 13 in 2011, Dr. Norris’ answer was as conclusory as the balance of her testimony, “[i]t did not
 14 change my opinion, no.” Trans. at 963:3.

15 (4) When Available Habitat in the Cache Slough Complex is
 16 Considered, the Data Show that Locating X2 at Kilometer
 17 79 Will Provide the Same Amount of Suitable Habitat That
 the BiOp Believed to be Needed for the Delta Smelt

18 In its Findings of Fact and Conclusions of Law, the Court determined, based on the
 19 testimony of Dr. Hanson, that the BiOp (Figure B-17) had found that approximately 13,000
 20 hectares (roughly 30,000 acres) of habitat in the preferred salinity range of the delta smelt would
 21 be available when X2 is located at km 74. Doc. 1013, Finding 132. The Court also found, based
 22 upon the testimony of Mr. Feyrer, that adding additional habitat units to represent delta smelt
 23 habitat in the Cache Slough Complex might shift the entire curve depicted in Figure B-17 to the
 24 right. *Id.*, ¶ 133; see also Pls. exh 102a. But, as the Court also noted, “The exact impact of any
 25 such shift has not been calculated by any party.” *Id.* In his accompanying declaration, Dr.
 26 Hanson describes the results of calculations made under his direction and control to actually
 27 determine the effect of adding habitat in the Cache Slough Complex to the habitat suitability
 28

1 curve depicted in Fig. B-17 of the BiOp. Hanson Decl. ¶ 18 & Exh. 1. Using the figure of 3,000
 2 hectares of Cache Slough Complex habitat to which he testified during the preliminary
 3 injunction hearing, Dr. Hanson depicts the results of his calculations in the following figure:



16 Figure 2 from Exhibit A to Hanson Decl. Refined relationship between X2 and habitat area for
 17 delta smelt during fall, assuming additional habitat area associated with the Cache Slough
 18 complex, with standard shown for wet years.

19 As can be seen from the figure, adding the delta smelt habitat found in the Cache Slough
 20 Complex to Figure B-17 does, indeed, shift the entire curve to the right, as Mr. Feyrer testified.
 21 It shows that, if the Cache Slough Complex is considered, the 13,000 hectares of “habitat” that
 22 were predicted to result from locating X2 at km 74 will still be achieved when X2 is located at
 23 km 79—the precise location identified in the Court’s preliminary injunction Order. Thus,
 24 assuming, *arguendo*, that habitat is a limiting factor for delta smelt—as Defendants insist that it
 25 is—when the delta smelt acreage in Cache Slough is considered and not ignored as it was in the
 26 BiOp, locating X2 at km 79 will result in the same amount of smelt “habitat” asserted in the
 27 BiOp prepared by Defendants to be protective of the species.

(5) The Rationale offered By Dr. Norris for Maintaining X2 at km 74 Simply Replicates Arguments That Have Already Been Presented to—and, Rejected By—the Court

Dr. Norris’s rationale for locating X2 at 74 km is almost entirely a word-for-word copy of Defendants’ proposed findings previously submitted to the Court. *See* Norris Decl. 10:7-15:13 (copying six entire pages of text from Doc. 1004 59:19-65:12 with only minimal modifications). Thus, although the Federal Defendants claim they are not “attempt[ing] to re-litigate the merits of the fall X2 Action,” Doc. 1032-1 6:18-20, their lack of effort shows that is precisely what they are attempting to do and that Dr. Norris has no credible new rationale for staying an injunction of the BiOp’s 74 km X2 requirement this year.⁵

For example, Dr. Norris makes the following statement: “Recent scientific studies have ‘found a statistical association between Fall X2 and the production of young delta smelt during the following year.’ BiOp at 372. The district court discussed several of them in detail and with approval. *See* ESA Summ. J. Op. at 108–24.” Norris Supp. Decl. at 6:11-13 (Doc. 1032-4). Dr. Norris fails to acknowledge that the portion of the BiOp that she has quoted cites only to a single study, namely, Feyrer et al. (2007). Her suggestion that the Service referenced multiple “scientific studies” in support of the quoted language in the BiOp is not only incorrect; it is self-serving. In addition, Dr. Norris’ assertion that, in its summary judgment decision, this Court discussed Feyrer et al. (2007) “in detail and with approval” is a questionable description of that decision. With respect to that study, the Court made the following finding: “FWS’s reliance on Feyrer (2007) was not *per se* unreasonable, however, FWS’s use of the study to justify operational restrictions is more questionable.” Doc. 757 at 113:1-3. The Court’s decision – in the context of review of the BiOp under the highly deferential APA standard of review – that reliance by the Service on Feyrer et al. (2007) “was not *per se* unreasonable” hardly amounts to endorsement or approval of that study. Further, Dr. Norris conveniently ignored the Court’s recent findings of fact and conclusions of law, which include the findings that Feyrer et al. (2007, 2008, 2011) are “neither definitive nor dispositive” and that those studies “provide some

⁵ Because Defendant’s proposed findings were jointly drafted and submitted by the Defendant-Intervenor environmental groups, it also raises an important question regarding whether these entirely copied statements should be afforded any regulatory import stemming from Dr. Norris’s asserted expertise.

1 evidence for the Fall X2 Action that is undermined and contradicted by the three most recent life
2 cycle modeling efforts.” Doc. 1013 at 55:5-9 (Doc. 1013).

3 Dr. Norris further states that the Fall X2 Action is the only component of the RPA “that
4 expressly protects the delta smelt’s critical habitat.” This statement, which Dr. Norris also made
5 in a prior declaration, *see* Norris Decl. at 3:12-14 (Doc. 941), is false. It is contradicted by the
6 RPA itself, which includes Action 6 “to improve habitat conditions for delta smelt...” BiOp at
7 379. It is also contradicted by the Defendants’ position in this litigation that the components of
8 the RPA that limit export pumping protect the species’ critical habitat. *E.g.*, Mem. in Supp. of
9 Fed. Defs’ Opp. and Cross-MSJ at 55:19 – 56:23 (Doc. 660). Plaintiffs pointed out that the
10 statement is false in previous filings. Reply Mem. in Support of Mot. for Inj. Relief at 6:11-17
11 (Doc. 985); Hanson Decl. at 2:23 – 3:21 (Doc. 984). In spite of uncontraverted evidence to the
12 contrary, Dr. Norris is dogmatic in her insistence that the Fall X2 Action is the sole component
13 of the RPA that provides any benefit for the delta smelt’s critical habitat.

14 Dr. Norris claims also that 75 km was initially picked as the compliance point based on a
15 “regression analysis” that relates X2 position to net Delta outflow and antecedent X2 position.
16 Norris Decl. 12:8-13 (citing AR 014227 as explaining the “regressive analysis”). However, this
17 argument was previously rejected by the Court because the formula used was based on
18 hydrological inputs that had “nothing to do with the biology of the smelt or the impact of X2 on
19 population dynamics.” Doc. 1013, 70:24-28.

20 Further, Dr. Norris points to “three scientific reasons” for the X2 locations chosen. First,
21 she argues that the 74 km requirement was based on a statement in a 1994 Biological Assessment
22 for the Projects indicating that smelt abundance is reduced when X2 is located east of 74 km –
23 and that abundance is variable but increases in some years when it is west of 74 km. Norris
24 Decl. 12:15-18 (citing AR 018153). But, the Court has already considered these historic
25 statements, DOC. 1013, ¶ 132, p. 74, and has concluded that Defendants’ argument regarding
26 “where X2 was located historically is not persuasive.” Doc. 1013, ¶ 65, p. 135.

27 Then, Dr. Norris claims the “second reason” for maintaining X2 at 74 km in wet years is
28 that it more closely approximates pre-POD Fall X2 conditions and “will return ecological

1 conditions of the estuary to that which occurred in the late 1990s when smelt populations were
2 much larger.” Norris Decl. 13:7-12; *see also* Norris Decl. 10:1-4 (asserting a striking change
3 occurred in the position of the Fall low salinity zone in all water year types during POD years);
4 Norris Decl. 9:26-10:1 (claiming X2 at 74 km or less increases the expected abiotic habitat index
5 above values experienced during POD years). Dr. Norris’s “third reason” is related to the
6 historical X2 location contention and claims that historical inter-annual variability in fall outflow
7 would be restored by maintaining X2 at 74 km and this variability is necessary to maintain and
8 recover the delta smelt population. Norris Decl. 13:13-19. Dr. Norris claims the Projects
9 eliminated this variability and caused the location of X2 to resemble a dry year in all water year
10 types and favored the expansion of invasive species. Norris Decl. 13:13-19.

11 These are not new arguments. Instead, the Court made extensive findings on each of
12 these issues. *See* Doc. 1013, ¶¶ 135-141, pp. 75-78 (discussing Defendants’ assertions re the
13 historical position and variability of X2 at 74 km in wet years). Moreover, the Court has already
14 found Defendants’ arguments regarding historical X2 position and variability are suspect
15 because they were based on an insufficiently short period for assessing trends, and that the post-
16 2000 period contained only one wet year, which is insufficient for drawing conclusions.⁶ Doc.
17 1013, ¶¶ 121, 123, p. 67-68. As the Court also found, Enright and Culberson (2009)
18 recommended evaluating variation in Delta outflow and salinity based on a minimum of 20 to 25
19 years, not the abbreviated 10-year period used by the Defendants, in order to ensure
20 consideration of lower frequency changes in climatic conditions. *Id.* at 67:26-68:5 (citing 7-27-
21 11 Tr at 148:13-18; Ex. 120, Hutton Reply Decl. at ¶ 7). The Court also noted the Defendants
22 improperly used a September through December four-month average, even though there is no
23 action implemented in December and the action differs in November from September and
24 October. *Id.* at ¶ 122, p. 68.

25 Dr. Norris also argues that the 74 km X2 requirement is based on the “tandem” use of D-

26 ⁶ Although the long-term data analysis by Dr. Hutton was not focused on the Defendants’ selected post-2000
27 timeframe, Doc. 1013, 68:17-23, it provides a much stronger data set for assessing trends and shows that the average
28 X2 position has trended westward (i.e., decreased) in wet years in all post-Project months (September, October, and
November), 63:5-10, and there has been a general increase in fall X2 variability (as opposed to the decreased
variability asserted by the Defendants). Doc. 1013, 62:27-63:2; *see also id.* at 51, p.131.

1 1641's X2 compliance locations for the spring months of February through June. Norris Decl. ¶
2 37, pp. 14-15. However, the Court has already considered this argument and concluded: "That
3 the 74 km and 81 km points correspond to existing monitoring stations and/or D-1641
4 compliance points does nothing to establish that maintaining Fall X2 at those locations is
5 necessary to the survival and recovery of the species." Doc. 1013, ¶¶ 126-127, p. 70. Thus,
6 similar to her other arguments, this assertion has also already been evaluated and properly
7 rejected, and it does not support granting a stay of the injunction.

8 **D. BALANCE OF HARDSHIPS AND THE PUBLIC INTEREST FAVOR**
9 **ENJOINING THE FALL X2 ACTION**

10 The Court found that preserving water for beneficial use and protecting human health,
11 safety, and affected communities serves the public interest. Doc. 1013, ¶ 69, p. 137. The public
12 interest is also implicated in the federal government's duty to implement and enforce the ESA
13 and NEPA, two public interest statutes that are sought to be enjoined. *Id.* at ¶ 70, p. 137.

14 Because imposition of the Fall X2 Action will not benefit the species, but will
15 indisputably result in substantial water supply impacts to the SWP, the balance of hardships and
16 the public interest decidedly tip in favor of denying Defendants' motion for stay.

17 **IV. CONCLUSION**

18 For all the above reasons, Federal Defendants' motion for stay of the injunction enjoining
19 Fall X2 Action pending appeal should be denied.

20 Respectfully submitted,

21 Dated: September 14, 2011

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