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**From:** Banonis, Michelle <[mabanonis@usbr.gov](mailto:mabanonis@usbr.gov)>  
**Sent:** Monday, November 16, 2015 3:20 PM  
**To:** BDCPcomments  
**Subject:** Fwd: CWF/BDCP EIS/R Comments  
**Attachments:** Review of SEIS\_Oct 2015\_NMFS.docx;  
PublicDraft\_RDEIR\_SDEIS\_Comment\_Form\_NMFS.doc

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----- Forwarded message -----

**From:** **Ryan Wulff - NOAA Federal** <[ryan.wulff@noaa.gov](mailto:ryan.wulff@noaa.gov)>  
**Date:** Mon, Nov 16, 2015 at 2:25 PM  
**Subject:** Re: CWF/BDCP EIS/R Comments  
**To:** "[mabanonis@usbr.gov](mailto:mabanonis@usbr.gov)" <[mabanonis@usbr.gov](mailto:mabanonis@usbr.gov)>  
**Cc:** "[astine@usbr.gov](mailto:astine@usbr.gov)" <[astine@usbr.gov](mailto:astine@usbr.gov)>, Cathy Marcinkevage - NOAA Federal <[cathy.marcinkevage@noaa.gov](mailto:cathy.marcinkevage@noaa.gov)>, Lori Rinek <[lori\\_rinek@fws.gov](mailto:lori_rinek@fws.gov)>

Michelle,

Per our conversation, please consider these our formal comments on the RDEIR/SDEIS. You have the other comments related to Admin Draft comments, FYI, from Cathy.

We look forward to continuing to work with you on the final NEPA/CEQA documents.

Regards,  
Ryan

**NMFS Comments on RDEIR/SDEIS (for the 10/30/15 end of comment period)**

As a cooperating agency, rather than lead agency, our role in the development and determinations of this document has shifted to mostly advisory and focused mainly on areas related to the agency's special expertise. Attached are "line by line" comments, where we were able to be specific. Below are more general comments focused on the main aquatic species chapter. They identify some of our concerns with determinations and potential inconsistencies across alternatives.

**Review of Supplemental EIS: Chapter 11**

NMFS appreciates that the complexity of analyzing biological effects for the multiple Alternatives and species in the project area is a very difficult undertaking. NMFS provided input and guidance when possible during review periods and some concerns were addressed satisfactorily. With the understanding that the scenario related to the preferred alternative that was developed for the BA would be incorporated into the Final EIS, we would like to identify that determinations could (and should, if warranted by the data) change as a result of analysis of that alternative. However, looking at the current text in the RDEIR/SDEIS, here are some areas NMFS would like to comment on.

A methodology section was added (Sect 11.3.2) to help explain effects determinations for the Fish and Aquatic resources section. It was helpful to see the outline of the models and analysis that were used to determine an effect but not always clear on which model or method was given the highest weight and why (Table 11.14, Table 11.15, Table 11.16 and Table 11.17). It would be useful to crosscheck determinations across all Alternatives with the baseline to ensure consistency in effects determinations. It would also be useful to develop a table that highlights which effect in any of the Alternatives rose to an Adverse or Beneficial determination in all or any of the lifestages/categories affected (ie, migration in Delta or spawning upstream), and then clearly lists what caused the effect (ie, greater than 15% change in flow upstream in key migratory months(s) of April and June) using criteria specified in the methodology section.

The table on page 11-591 is a good example of consolidating results in a way that enables the reader to see previous determinations coupled with the new determinations made for those Alternatives. Following this table is description of why the changes were made. This allows the reader to focus in one area for that subset of Alternatives and associated changes which is necessary in such a large document. It could be further improved if the determinations that resulted in the change of status were highlighted in a table as mentioned above (what life stage(s), what key driver (15% change in key migratory months)). This is the case in other areas as well. For example, there was text describing results in multiple locations (Mokelumne, Feather etc) for certain species (fall run/late fall run) yet lack of clarity regarding what was determined. Additionally, it would help to have a thorough examination of the Alternatives that resulted in Not Adverse to corroborate they fell within the methodology of causing no quantifiable changes above the baseline (NAA).

As an example of inconsistent methodology, look at the determinations for "Entrainment of winter-run". Alternatives 1,2,3,6,9 were determined to have Beneficial effects for winter-run entrainment. Alternatives 4,5,7,8 were determined to be Not Adverse. From viewing the results of all the Alternatives in comparison to baseline, NMFS feels it is clear that Alternative 7 and 8 were beneficial and provided more benefit than Alternatives 1, 2 and 3. However, alternative 3 should have been labelled NA and Alternative 4 Beneficial. The reasoning evident for why the determinations were made is unclear (see attached result sheet – Appendix A). NMFS believes there were other inconsistencies in determinations for other life-stages and categories, particularly those that were more complex and involved multiple analysis or lines of evidence.

Other areas that could use improvement include combining results from multiple rivers to come to one conclusion on effects. The Sacramento River should have been given separate weighting from any of the other rivers in making determinations. The Project/Alternatives effects are concentrated in the Sacramento River and Delta which is a large enough area to consider without confounding results and determinations with all the other rivers. If any of the tributary river flow patterns were affected due to being managed directly by CVP/SWP operations under the Project/Alternative, it would have helped to have them assessed independently in effects determinations so that all rivers would have equal weighting and not be overshadowed by effect (or lack of effects) in a different river. If necessary, after assessing and making a determination on each species/river independently, the results for all the rivers could then be listed and a final determination with rationale included.

The Delta analysis was sparse and Table 11.17 indicated that only the DPM and flow changes from Calsim were used. It would help to have the Newman and Perry analysis that was undertaken be available to assess this critical part of the project area under the Alternatives. Predation was applied to the ND intakes and that was helpful in the sense that the more intakes the greater the predation effect but it did not really relate to flow changes caused by the project so may not be a complete consideration of predation risk.

Alternative 4 was difficult to assess in whole as it had four different operating scenarios. The high outflow (H4) and the low outflow (H1) were different enough to make consolidating results of this Alternative unfeasible. The effects determinations of this Alternative really depended on what scenario was analyzed. It would have helped if it was made clear to the reader that the Alternative could be called Not Adverse or Beneficial based on any one of the scenarios meeting that criteria but that the opposite did not apply (ie, the Alternative would not be called Adverse if one of the scenarios resulted in an adverse effect as that particular scenario would likely not be forwarded.) For the preferred alternative, again, we anticipate some of the discussions and work as part of the BA will be incorporated into the Final EIS to assist with this determination.

**Appendix A.****Table 11-1A-9. Juvenile Winter-Run Chinook Salmon Annual Entrainment Index<sup>a</sup> at the SWP and CVP Salvage Facilities—Differences between Model Scenarios for Alternative 1A**

Water Year	Absolute Difference (Percent Difference)	
	EXISTING CONDITIONS vs. A1A_LLT	NAA vs. A1A_LLT
Wet	-9,862 (-87%)	-10,282 (-87%)
Above Normal	-5,115 (-77%)	-5,239 (-78%)
Below Normal	-3,827 (-53%)	-3,403 (-50%)
Dry	-569 (-15%)	-262 (-8%)
Critical	-213 (-17%)	-74 (-7%)
All Years	-4,129 (-61%)	-4,069 (-60%)

Shading indicates >10% increased entrainment.

Notes: Estimated annual index of fish lost, based on normalized salvage densities.

**Table 11-2A-8. Juvenile Winter-Run Chinook Salmon Annual Entrainment Index at the SWP and CVP Salvage Facilities—Differences between Model Scenarios for Alternative 2A**

Water Year Type	Absolute Difference (Percent Difference) <sup>a</sup>	
	EXISTING CONDITIONS vs. A2A_LLT	NAA vs. A2A_LLT
Wet	-10,144 (-89%)	-10,565 (-90%)
Above Normal	-5,399 (-81%)	-5,523 (-82%)
Below Normal	-3,751 (-52%)	-3,327 (-49%)
Dry	-1,175 (-31%)	-868 (-25%)
Critical	-347 (-27%)	-208 (-18%)
All Years	-4,598 (-68%)	-4,539 (-67%)

Shading indicates 10% or greater increased entrainment.

<sup>a</sup> Estimated annual number of fish lost, based on normalized data.

**Table 11-3-8. Juvenile Chinook Salmon Annual Entrainment Index<sup>a</sup> at the SWP and CVP Salvage Facilities—Differences between Model Scenarios for Alternative 3**

Water Year Type	Absolute Difference (Percent Difference)	
	EXISTING CONDITIONS vs. A3_LLT	NAA vs. A3_LLT
<b>Winter-Run Chinook Salmon</b>		
Wet	-3,467 (-30%)	-3,888 (-33%)
Above Normal	-1,582 (-24%)	-1,707 (-25%)
Below Normal	-1,626 (-23%)	-1,202 (-18%)
Dry	-337 (-9%)	-30 (-1%)
Critical	-195 (-15%)	-56 (-5%)
All Years	-1,546 (-23%)	-1,486 (-22%)

Shading indicates entrainment increased 5% or more.

<sup>a</sup> Estimated annual number of fish lost, based on normalized data.

Table 11-4-10. Juvenile Winter-Run Chinook Salmon Annual Entrainment Index at the SWP and CVP Salvage Facilities—Differences between Model Scenarios for Alternative 4 (Scenario H3)

Water Year	Absolute Difference (Percent Difference)	
	EXISTING CONDITIONS vs. H3	NAA vs. H3
Wet	-7,816 (-69%)	-8,237 (-70%)
Above Normal	-3,919 (-59%)	-4,043 (-60%)
Below Normal	-2,666 (-37%)	-2,241 (-33%)
Dry	-1,116 (-29%)	-809 (-23%)
Critical	-343 (-27%)	-205 (-18%)
All Years	-3,584 (-53%)	-3,524 (-52%)

Note: Estimated annual number of fish lost, based on normalized data.

Table 11-7-8. Juvenile Winter-Run Chinook Salmon Annual Entrainment Index\* at the SWP and CVP Salvage Facilities—Differences between Model Scenarios for Alternative 7

Water Year	Absolute Difference (Percent Difference)	
	EXISTING CONDITIONS vs. A7_LL1	NAA vs. A7_LL1
<b>Winter-run Chinook salmon</b>		
Wet	-8,255 (-73%)	-8,675 (-74%)
Above Normal	-5,358 (-81%)	-5,483 (-81%)
Below Normal	-5,953 (-83%)	-5,529 (-82%)
Dry	-3,701 (-98%)	-3,393 (-97%)
Critical	-1,261 (-100%)	-1,122 (-100%)
All Years	-5,565 (-82%)	-5,505 (-82%)

\* Estimated annual number of fish lost, based on normalized data.

Table 11-8-8. Juvenile Chinook Salmon Annual Entrainment Index\* at the SWP and CVP Salvage Facilities—Differences between Model Scenarios for Alternative 8

Water Year	Absolute Difference (Percent Difference)	
	EXISTING CONDITIONS vs. A8_LL1	NAA vs. A8_LL1
<b>Winter-Run Chinook Salmon</b>		
Wet	-8,199 (-72%)	-8,619 (-73%)
Above Normal	-5,273 (-80%)	-5,397 (-80%)
Below Normal	-6,032 (-84%)	-5,608 (-83%)
Dry	-3,709 (-98%)	-3,401 (-98%)
Critical	-1,261 (-100%)	-1,122 (-100%)
All Years	-5,572 (-82%)	-5,512 (-82%)
<b>Spring-Run Chinook Salmon</b>		

## BDCP/CWF RDEIR/SDEIS Review Document Comment Form

Document: Public Review Draft—Chapter /Appendix

Comment Source: NOAA Fisheries

Submittal Date: October 30, 2015

No.	Page	Line #	Comment	Response
1	1-2	13	Change “application of” to “application for”.	
2	1-3	27	Delete “using a shorter duration”. There is no specific duration identified for the proposed action in the ESA section 7 consultation process.	
3	1-13	32	Add “/California WaterFix” after “BDCP” to accurately reflect the range of alternatives discussed in the RDEIR/SDEIS.	
4	1-13	34	Add “listed” before “species” to accurately reflect the text of ESA Section 7(a)(2)	
5	1-13	35	Add “adverse” before “modification” to accurately reflect the text of ESA Section 7(a)(2)	
6	1-13	36	Change “Section 9 prohibits” to “Section 9 and regulations promulgated under Section 4(d) prohibit”, because ESA Section 9 prohibits the taking of endangered species and regulations promulgated under Section 4(d) prohibit the taking of threatened species. See page 1-14, lines 16-17.	
7	1-14	11	Change “authorizes a specified level of take” to “specifies the impact (i.e., the amount or extent) of incidental taking of the species” to accurately reflect ESA section 7(b)(4)(i) and 50 CFR 402.14(i).	
7	1-14	12	Add “and terms and conditions that must be complied with to implement the reasonable and prudent measures” after “take” in order to accurately reflect 50 CFR 402.14(i)(1)(iv) and 50 CFR 402.14(i)(5), which is cited at the end of this sentence.	
8	1-14	13-14	Change “and that must be implemented as a condition of the take authorization (50 CFR 402.14(i)(5))” to a new sentence that provides, “Any taking which is in compliance with the terms and conditions of the incidental take statement is not a prohibited taking under the ESA, and no other authorization or permit under the ESA is required.” This change is necessary to accurately reflect 50 CFR 402.14(i)(5) and ESA Section 7(o)(2).	
9	1-14	19	Add “pursue” after “harm” in order to accurately reflect the definition of “take” under the ESA (16 USC 1532(19)).	
10	1-14	23	Add “spawning, rearing, migrating” after “breeding” in order to accurately reflect the definition of “harm” in 50 CFR 222.102.	
11	1-14	24	Add “; 50 CFR 222.102” after “50 CFR 17.3” in order	

			to cite NMFS' regulatory definition of "harm" in addition to FWS' regulatory definition.	
12	1-14	24-25	Change "unless take is otherwise specifically authorized or permitted pursuant to the provisions of" to "except as specifically provided under the ESA, including". First, Section 7 does not provide for authorizations or permits, it provides for exemptions and exceptions. See ESA section 7(o). Second, as provided in ESA Section 9, there are some other exceptions, such as 16 U.S.C. § 1535(g)(2) and ESA section 9(b). However, these exceptions are not relevant to the proposed action or alternatives and do not need to be specifically listed.	
13	1-14	35	Change "that meets the following five issuance criteria" to "FWS or NMFS must find with respect to the permit application and HCP that" in order to be consistent with ESA Section 10(a)(2).	
14	1-15	1-2	Delete ", including the requirement to obtain incidental take authorization". As discussed in comments above, this change is necessary to accurately reflect ESA Section 7(b)(4), ESA Section 7(o)(2), and 50 CFR 402.14(i).	
15	1-15	16	Change "authorizing incidental take of federally listed species" to "including an incidental take statement for federally listed species" in order to accurately reflect ESA Section 7(b)(4), ESA Section 7(o)(2), and 50 CFR 402.14(i).	
16	1-15	32	Change "267" to "297" in order to correct the citation for the Sustainable Fisheries Act.	
17	1-15	33	Add "adversely" after "may" in order to accurately reflect the statutory section cited in this sentence.	
18	1-16	2-3	Change "through NMFS' issuance of the BiOp through Section 7 of the ESA" to "integrated with consultation under Section 7 of the ESA" in order to accurately reflect integration of EFH and ESA Section 7 consultation. See NMFS' Essential Fish Habitat Consultation Guidance, Version 1.1, April 2004, available at <a href="http://www.habitat.noaa.gov/pdf/efhconsultationguidancev1_1.pdf">http://www.habitat.noaa.gov/pdf/efhconsultationguidancev1_1.pdf</a>	
19	1-16	36	Add "a" before "permit".	
20	1-25	Table 1-1	In Other Considerations related to the National Marine Fisheries Service, change "Magnuson-Stevens Fisheries Conservation and Management Act" to "Magnuson-Stevens Fishery Conservation and Management Act" in order to accurately reflect the name of the Act. See 16 U.S.C. 1801 notes and page 1-15 of the RDEIR/SDEIS.	
21	2-1	10	Change "nonimpact" to "on impact".	
22	2-2	40	Change "indicted" to "indicated".	
23	4.1-3	20, 22	Delete the quotation marks on these lines, because	

			the phrase within these quotation marks is not a direct quote from 40 CFR 1503.4(a), which is cited in a footnote after the quotation marks.	
24	4.1-3	30, 31	Delete the quotation marks on these lines, because the phrase within these quotation marks is not a direct quote from 40 CFR 1503.4(a), which is cited in a footnote after the quotation marks.	
25	4.1-4	13	Add "be" before "implemented".	
26	4.1-5	Table 4.1-1	This table provides that Alternative 4A operations are evaluated as Scenarios H3-H4 at the early long term (ELT, which is associated with conditions around 2025, but Alternative 4 operations are evaluated to LLT. In addition, this table provides that the NEPA Baseline for Alternative 4A is the No Action Alternative at ELT, but the NEPA Baseline for Alternative 4 is the No Action Alternative at LLT. However, Alternative 4A is for an indefinite period. Therefore, it is unclear why its operations are evaluated at different term or timeframe, and it is unclear why the NEPA Baseline is described as a different term or timeframe.	
27	4.1-6	16-22	Insure that the discussion on these lines is consistent with the final biological assessment for the California Water Fix.	
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