

COUNCIL STAFF COMMENTS ON THE CO-MANAGER DRAFT CENTRAL VALLEY  
SALMON RECOVERY PLAN

Council Staff has prepared comments on the Co-Manager draft Endangered Species Act Central Valley Recovery Plan (CVRP) for Sacramento winter Chinook. Comments for Central Valley spring Chinook were not specifically developed; however, it appears that many of the sections were similar to those for winter Chinook.

These comments focus primarily on the ranked matrix of identified stressors and the proposed recovery actions. Overall, it appears that the stressor matrix ranks ocean harvest effects as a greater threat to recovery of winter Chinook than can be supported by the available data or the recovery actions. For example, the stressor matrix places ocean harvest in the highest quartile (very high stressor), while there are no actions identified in the Recovery Strategy section that address ocean harvest, and there is a statement that overutilization for commercial or recreational purposes no longer appears to have a significant impact on winter Chinook (CVRP page 84).

The ranking system used to develop the stressor matrix should be reevaluated, in particular the identification of the number of individual stressors. The number of stressors is generally a reflection of the geographic distribution of stressors, and includes upper, middle, and lower Sacramento River, the Delta and the Bay. Only one stressor, harvest impacts, included the ocean environment. Other stressors (e.g., juvenile flow conditions) have divisions within the Delta environment, which further demonstrate the somewhat arbitrary use of the number of specific stressors as a multiplier in the stressor matrix.

The CVRP appropriately focuses on human caused threats in the freshwater and estuarine environment. The CVRP does a relatively good job of linking recovery measures to identified threats; however, there are some areas that need further development. In particular, the lack of stressors other than harvest in the ocean environment is a serious shortfall of the analysis. The ocean environment has a dramatic effect on salmon abundance and productivity, and the CVRP appears to largely overlook this. At a minimum, the effects of predation in the ocean environment should be considered. Also largely overlooked is the potential for food web disruption from pollution.

Specific comments are attached in the format requested by the National Marine Fisheries Service.

PFMC  
8/20/08

# DRAFT RECOVERY PLAN COMMENT FORM

**INSTRUCTIONS:**

Please fill out your Agency/Tribe and Contact Information. *We appreciate receiving only one submittal per agency and would prefer to receive comments electronically, but certainly welcome hard copy formats as well.* If your agency is submitting comments from multiple reviewers, please indicate each reviewer's name in the fourth column.

Commenting  
Agency/Tribe

Pacific Fishery Management Council
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Commenting  
Agency/Tribe Contact  
Information

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Comment Type (General, Chapter Title, Appendix Title, or Attachment Title)	Section Name	Page #	Reviewer	Comment
Executive Summary	Background	ES-2; first paragraph	PFMC - Staff	<i>Three of the more important stressors include continued commercial and recreational harvest, predation from introduced species such as striped bass, and high demand for limited water supply resulting in reduced instream flows and highly altered hydrology in the Sacramento San Joaquin Delta. Habitat loss should be included here, as it was just discussed in detail above and is a bigger factor than harvest (and probably striped bass).</i>
Executive Summary	Recovery Strategy	ES-3; first paragraph	PFMC - Staff	<i>This Recovery Plan establishes a “directional” strategic approach to recovery. Explain what this means. Why is it “directional”? “Stepwise” might be a better description.</i>
Executive Summary	Recovery Strategy	ES-4; first bullet	PFMC - Staff	<i>No population should be allowed to deteriorate in its probability of persistence. Is there a clearer way of saying this? No population should be allowed to decline? All populations should remain viable?</i>

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Executive Summary	Recovery Strategy	ES-4; third bullet	PFMC - Staff	<i>Individual populations within a Diversity Group should have persistence probabilities consistent with a high probability of Diversity Group persistence. There must be a clearer way to express this. Within a Diversity Group, the viability of individual populations should be consistent with that of the Diversity Group? (I'm not even sure what this means).</i>
Executive Summary	Recovery Strategy	ES-4; second paragraph	PFMC - Staff	<i>would substantially improve</i>
Executive Summary	Recovery Goals, Objectives, and Criteria	ES-5; second full paragraph	PFMC - Staff	<i>allows confirmation</i>
Executive Summary	Recovery Goals, Objectives, and Criteria	ES-5; second full paragraph	PFMC - Staff	<i>Implement conjunctive use program where appropriate -Explain what this is for readers who aren't familiar with this term.</i>
Executive Summary	Recovery Goals, Objectives, and Criteria	ES-7 to ES-9;	PFMC - Staff	<i>Some items in this list seem redundant – for example, Reclaim/restore floodplain and riparian habitat throughout the Sacramento and San Joaquin rivers, and the Delta and Replenish spawning gravel and restore riparian habitat below dams and implement programs to restore access to properly functioning habitat that was historically available. It would be helpful to divide this list into categories (for example, “Habitat Restoration,” “Non-native Species,” “Irrigation screening”) and then number the recommendations so that they are easier to refer to.</i>
Executive Summary	Recovery Actions	ES-10; first paragraph	PFMC - Staff	<i>Reduced ocean harvest needed to recover CV salmonids. Determine basis for this statement, contrast with statement: improved water conservation, flow and temperature conditions likely required for recovery (this statement grammatically incorrect), and recovery unlikely without restoring functional habitat and access. Harvest and striped bass have been around a long time and the stocks weren't listed until water development occurred, so it seems the threats are improperly emphasized. You could eliminate ocean harvest and striped bass and still not recover the stocks.</i>
Executive Summary	Implementation and Cost Estimates	ES-10; second paragraph	PFMC - Staff	<i>This change can only be accomplished with effective outreach and education, strong partnerships, focused recovery strategies and solution-oriented thinking that can shift agency and societal attitudes, practices and understanding. This is a good point and emphasizes the need for social science knowledge (as opposed to just biological/technical knowledge) as a part of the recovery effort.</i>
Executive Summary	Implementation and Cost Estimate	ES-10; third paragraph	PFMC - Staff	<i>generally and specifically... delete.</i>

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Executive Summary	Implementation and Cost Estimate	ES-10; third paragraph	PFMC - Staff	Are NMFS 2006 and the PRD Strategic Plan the same thing? If so then use the same terminology, if not, cite the PRDSP and list in references. (1 <sup>st</sup> and 2 <sup>nd</sup> sentence: ... <i>(NMFS 2006)</i> . <i>This document also outlines...</i> )
Executive Summary	Implementation and Cost Estimate	ES-10; fifth paragraph	PFMC - Staff	<i>to other entities that implement actions that may impact the species' recovery.</i>
Introduction	Salmon and Steelhead at Risk	Page 3 last paragraph	PFMC - Staff	list of factors should include pollutants (toxins, pesticides, etc.) and ecological effects on prey species. A need to improve habitat is indicated, not a likely need to improve habitat (see above).
Introduction	The Recovery Planning Process	Page 4 fourth and fifth paragraph	PFMC - Staff	inconsistent referencing of NMFS 2006
Background	Winter Ruyn Chinook Salmon Brief Overview	Page 8 last paragraph	PFMC - Staff	<i>(3) continued threats <del>to</del> from the "take" of winter Chinook ...</i> Should define "take" here.
Background	Winter Run Chinook Salmon Brief Overview	Page 9	PFMC - Staff	no threats from harvest identified, all spatial, diversity, water quality/quantity, diversions, future development, habitat degradations, and water demand.
Background	Reasons for Listing	Page 26	PFMC - Staff	high ocean harvest rates identified as contributing to the decline (presumably to listing?).
Recovery Strategy	Applied strategic framework; Winter Chinook	Page 72	PFMC - Staff	<i>The population easily satisfies the low risk criteria for population size. So why is ocean harvest a very high stressor? Harvest isn't even mentioned in this section.</i>
Recovery Strategy	Recovery Plan Strategy	Pages 74-75	PFMC - Staff	Harvest issues are not identified in either short- or long-term approaches. This indicates ocean harvest not a serious problem.
Recovery Goals, Objectives and Criteria	Factor WR-2	Page 84	PFMC - Staff	Overutilization no longer a significant impact on winter Chinook, i.e., threat removed.
Recovery Goals, Objectives and Criteria	Criterion WR-2.1	Page 84	PFMC - Staff	CVRP recommends monitoring/assessment, improved models, reporting, etc. While these recommendations could provide some useful management information, they don't seem to address any specific threat from fishing.
Recovery Actions	General Recovery Actions	Pages 98-100	PFMC - Staff	<i>no particular order.</i> Should attempt some organization, e.g., spring/fall Chinook spawning isolation should be near hatchery operations, should be near Fishery management, etc.

Comment Type (General, Chapter Title, Appendix Title, or Attachment Title)	Section Name	Page #	Reviewer	Comment
Implementation and Cost Estimates	Section 7	Page 105	PFMC - Staff	<i>adopt emergency no-incident take policy for winter-run Chinook...</i> This seems drastic, what specific threat does this address? Does this include fisheries?
Implementation and Cost Estimates	Section 7	Page 105	PFMC - Staff	<i>Develop a mitigation policy ...</i> This should include a policy to enforce past mitigation agreements, including fish production.
Appendix A	2.3.1.2	Page 2-12	PFMC - Staff	Ocean harvest reduction based on CVI harvest index reductions, not winter Chinook exploitation rate reductions. Seasonal closures should have had greater effect on winter Chinook ER's than on CVI harvest index. Also there is a difference between the CVI and the CVI harvest index: The CVI is an index of abundance, the CVI harvest index is ocean harvest south of Point Arena divided by the CVI.
Appendix A	2.3.8.1	Page 2-44	PFMC - Staff	<i>...release of adipose fin clipped coded wire tagged ...</i>
Appendix A	2.4.2	Page 2-50	PFMC - Staff	The list should be in prioritized order, ocean harvest should not appear second.
Appendix A	2.3.8.1	Page 2-44	PFMC - Staff	The CVI <u>harvest index</u> also fell because the ESA consultation standard for California Coastal Chinook constrained ocean harvest ( $\leq 16.0\%$ ag-4 ocean harvest rate on Klamath River fall Chinook). But regardless, winter run effects were greater because seasons exclude them more than Sacramento fall Chinook. Also, averages are better representations than ranges or single years (e.g., CVI HI averaged 63% from 1991-2000 and 40% from 2001-2007).
Attachment A	Winter-run Chinook Salmon Stressor Matrix	Page A-1-5	PFMC - Staff	There are seven specific stressors for Adult immigration and holding: Passage Impediments/Barriers, not six.
Attachment A	Juvenile Rearing and Outmigration: Predation	Page A-1-5	PFMC - Staff	No stressor for the ocean?
Attachment A	Adult immigration and holding	Page A-1-5	PFMC - Staff	No stressor for the river or ocean?
Attachment A	Embryo Incubation	Page A-1-5	PFMC - Staff	No stressor for flows (redd dewatering, scouring), or Short-term Inwater Construction (sedimentation, turbidity, hazardous spills, etc).

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Attachment A	Winter-run Chinook Salmon Stressor Matrix	Page A-1-5	PFMC - Staff	Number of individual stressors is arbitrary, and heavily influences categorization, e.g., there is only one stressor listed for the ocean (harvest). Lumping freshwater and ocean fisheries results in multiplication by 6, separating them would result in much different classifications. Fishing is not the only thing in the ocean environment that stresses salmon.
Appendix B	Table 2-1	Page 2-5	PFMC - Staff	An ecosystem based model would provide additional information on winter Chinook life history factors, but wouldn't necessarily provide any additional protection. The current management regime already prohibits fishing in most time/area cells where winter Chinook are present in the Ocean.