

new substantive issues that had not been raised in comments previously submitted, and subsequently addressed in this final determination.

The following is a summary of comments we received during the 197 days associated with the five comment periods opened since the remand of the final listing rule. For additional information on comments received during three previous comment periods before the current litigation, please see the previous final listing rule (64 FR 5963). Substantive comments and information raised or provided during the public comments periods have either been incorporated directly into this notice or addressed below.

Peer Review

As previously discussed in the above abundance section, we requested 5 biologists to provide scientific review of the proposed listing of the splittail as threatened. Technical data provided by the peer reviewers have been incorporated into or addressed in this document, while other issues raised by the peer reviewers are addressed below.

Peer Reviewer Comment 1: A peer reviewer cited the "White Paper" (Moyle *et al.* 2001) for splittail as raising the possibility that abundance may not be a reliable measure of population status for the splittail.

Our Response: We acknowledge that abundance may not be the most reliable measure of population status, but assert that it is the best scientific measure available. The utility of abundance as a measure of splittail population status is reflected in its continued use by the scientific community including researchers (Meng and Moyle 1995, Sommer *et al.* 1997) and agencies (CDFG, CDWR, USBR).

Peer Reviewer Comment 2: A peer reviewer cited the "White Paper" (Moyle *et al.* 2001) for splittail as reporting a tentative population model result that stated, " * * * a long series of dry years is unlikely to drive the splittail to extinction, even if the population is greatly reduced." Another peer reviewer asserted that if the splittail were truly going extinct, all surveys would show a decline.

Our Response: A species warrants listing as threatened under the Act if is in danger of becoming endangered in the foreseeable future throughout all or a significant portion of its range (16 U.S.C. 1532(20)). It is possible for the splittail to be undergoing threats or declines in a significant portion of its range without declines showing in all surveys. Alternatively, threats to the splittail may support listing even in the absence of our ability to document

current population declines. However, even considering our conservative analysis of the apparent splittail population declines and the threats analysis, we believe the conservation elements of the California State and Federal cooperative program (CALFED) and the Central Valley Project Improvement Act (CVPIA) programs adequately mitigate for these threats (please refer to Summary of Factors Affecting the Species section for a detailed discussion of CALFED and the CVPIA).

Peer Reviewer Comment 3: A peer reviewer submitted comments that included an analysis using a modified version of Meng and Moyle's (1995) pre-decline and post-decline method. The peer reviewer also divided the data by year class and used data available from all years and requested we consider these analyses.

Our Response: As discussed earlier in this notice, we acknowledge that there are other methods by which to analyze the available data, but that we have now employed an analysis using the CDFG/USBR MLR Model data series to describe population trends of the splittail. We refer the peer reviewer to our Abundance section for a discussion of our most recent statistical analysis of the species population trends.

Peer Reviewer Comment 4: A peer reviewer criticized us for evaluating the results of the CDFG/USBR MLR Model for all 20 data series of splittail abundance index data, instead of limiting the evaluation to the nine data series that the respondents view as most representative of overall splittail populations. Another peer reviewer stated that Bay Study OT and Fall MWT data were more indicative of splittail abundance trends, rather than the trends made evident by data collected at the SWP Salvage facilities, Chipps Island, and in Suisun Marsh, which the respondent felt were narrow in geographic scope.

Our Response: We note that these and other respondents have previously criticized us, while employing different analysis, for not treating all 20 data series equally and for not including all available data series in statistical evaluations of abundance trends. We refer the commentor to the section entitled Abundance for a discussion of our treatment of the data series.

Peer Reviewer Comment 5: A peer reviewer reiterated his assessment that the statistical evidence for a declining trend in splittail abundance is weak, and cited an analysis that asserted that evidence for a time trend in 7 of 20 data series is not a compelling factor in determining that declines exist. The

peer reviewer specifically cited Manly (2002) which states "The Service claims that lack of power to detect a trend gives a reason for using a 20 [percent] level of significance in assessing whether or not there is evidence of a trend with individual series. This then allows [the Service] to claim evidence for a trend for 7 of the 20 series. Although this sounds impressive, it is less so when it is realized that by chance alone 4 of the 20 series (*i.e.*, 20 [percent] of them) are expected to give a significant result if this level of significance is used." The peer reviewer also asserted that the weak nature of the MLR Model regression coefficients will be demonstrated with the calculation of splittail abundance indices for 2000, 2001, and 2002 and their inclusion into the models.

Our Response: Using the most recent data, our analysis now indicates that 9 of 20 indices show significant negative trends at the 20 percent level of significance, while 2 of 20 show significant positive trends at that significance level. As we noted earlier in the analysis, we achieved these results by a conscious choice of a variable that accepted a higher risk of incorrectly identifying downward trends in population in order to take a conservative position in our threats analysis.

Peer Reviewer Comment 6: A peer reviewer criticized our acceptance of the "sign" (*i.e.*, positive or negative) results of the CDFG/USBR MLR Model coefficients at face value because in most cases (16 of 20) the true signs (*i.e.*, positive or negative) were just as likely to be positive as negative.

Our Response: We cannot apply the respondent's reasoning to the available data. The p-value for a coefficient is what statistical analysis has indicated it should be; simply because a given p-value does not rise to the level of 95 percent significance criterion, does not indicate that the p-value automatically reverts to 50 percent.

Peer Reviewer Comment 7: It was noted by a peer reviewer that in half the CDFG/USBR MLR Model runs the dependent variable was significantly non-normal and that as a consequence probability statements will be "slightly" in error.

Our Response: We believe that the peer reviewer's comment is correct. This type of error alone, however, would not necessarily invalidate our evaluations of the signs and magnitudes of the regression coefficients. The error would have to be of a nature that creates bias. The peer reviewer did not provide any statistical or other argument to explain why such error would necessarily result