

NMFS' March 12, 2010, Determination based on the DOSS advice from March 11, 2010

NMFS RPA Action IV.2.3 (page 649) Old and Middle River (OMR) Flow Management

During the January 1-June 15 time period, the following action triggers (only discussing the First Stage Trigger) would warrant an OMR action:

“Daily SWP/CVP older juvenile loss density (fish per taf)

- 1) is greater than incidental take limit divided by 2000 (2 percent WR JPE ÷ 2000), with a minimum value of 2.5 fish per taf, or
- 2) daily loss is greater than daily measured fish density divided by 12 taf (daily measured fish density ÷ 12 taf) or
- 3) CNFH CWT LFR or LSNFH CWT WR cumulative loss greater than 0.5%, or
- 4) daily loss of wild steelhead (intact adipose fin) is greater than the daily measured fish density divided by 12 taf (daily measured fish density ÷ 12 taf)”

DOSS Advice¹

The DOSS advice to WOMT and NMFS is to implement only the first and third triggers while DOSS evaluates the second trigger. Because neither the first or third triggers have been met, the DOSS advice to WOMT and NMFS is for the CVP and SWP to operate such that OMR is no more negative than -5,000 cfs.

NMFS Determination

Through internal discussions, and the DOSS conference calls on March 9 and 11, 2010, NMFS reviewed the second trigger, and has determined that it is not workable in its current form. If implemented as proposed in the OCAP biological assessment (appendix B, page B-2), the trigger would result in multiple flow reductions independent of fish numbers or densities, and are not timed to reduce the risk to species based on their presence in the area². After review of the DOSS advice, including the background information and considerations leading up to that advice, NMFS accepts the advice from DOSS and determines that implementing the first and third triggers of Action IV.2.3 (page 649 of the NMFS Opinion) provides for operations consistent with the intent of this action and is sufficiently protective of older juvenile salmon at this time. As shown in the table of loss densities in the attached DOSS advice, loss densities have decreased substantially since March 9, 2010, and the considerable decrease in loss densities were considered during the DOSS calls.

NMFS, with advice from DOSS, will continue to monitor OMR based on the first and third triggers. In addition, NMFS requests that DOSS review the second trigger, including possible modifications, and report back to NMFS in 2 weeks.

Attachment

¹ The DOSS advice, including background information and considerations leading to that advice, is provided as an attachment to this NMFS determination

² The OCAP Opinion, page 649, shows daily measured fish density ÷ 12 taf, whereas the calculation in the OCAP biological assessment (Appendix B) is daily measured fish density * 12 taf. To apply the RPA action as it reads, the resulting unit would be fish/TAF², which cannot be evaluated against fish density to determine if daily measured fish density has or has not exceeded the trigger. If NMFS made the correction to reflect multiplication (“*”) rather than division (“÷”) by 12 taf, then an OMR action would be triggered anytime combined CVP and SWP exports exceeds 12 taf per day, independent of daily loss or daily measured fish density.

DOSS advice to NMFS and WOMT from the March 11, 2010, DOSS call

Background:

Given the questions regarding the second salmon trigger within NMFS RPA Action IV.2.3 (*i.e.*, daily loss is greater than daily measured fish density divided by 12 taf), DOSS identified 3 options to move forward, along with pros and cons of each:

(1) implement the second trigger as written.

Pro: Implementing the RPA as written.

Con: The second trigger, as written, does not meet the intent of the action, which is to be responsive to increasing densities of fish at or near the pumps. As written, any take at either salvage facility would trigger an OMR action.

(2) implement a modified second trigger as discussed during the March 9, 2010, DOSS and WOMT meetings, that is, the first and second stage triggers would be met if combined loss density of older juveniles exceeds 8 fish/thousand acre feet (TAF) and 12 fish/TAF, respectively.

Pros: A. This modified trigger, as intended, would increase protection as fish density increases at or near the export facilities.

B. This modified trigger provides greater protection than the first trigger based on the winter-run juvenile production estimate for 2009-10 (*i.e.*, first and second stage triggers of 12 and 24 fish/TAF, respectively³).

Con: The biological rationale for the modified trigger has not been fully discussed. While the modified trigger is similar to loss density criteria used in the Chinook salmon decision, the exact triggering densities and time of year during which those triggers apply differ between the Chinook salmon decision process and the modified trigger.

(3) implement only the first and third triggers while DOSS evaluates the second trigger.

Pros: A. The first and third triggers are well documented and understood, while the second trigger, as written, would require operations not intended by the action.

B. The biological rationale for the modified trigger has not been fully discussed.

Con: Not implementing the second trigger would provide less protection.

Recent loss densities are provided below.

Date	Combined loss (# fish)	Combined exports ⁴ (TAF)	Combined loss density (fish/TAF)
March 8, 2010	145	16,568	8.75
March 9, 2010	13	16,350	0.80
March 10, 2010	19.72	15,420	1.28
March 11, 2010 ⁵	17.32	14,951	1.16

³ Based on the official JPE, the first and second stage triggers are 12 and 24 fish/TAF. The trigger levels of 11 and 22 mentioned on the call were based on the preliminary JPE and are no longer current.

⁴ <http://www.usbr.gov/mp/cvo/vungvari/deltaop.pdf>

⁵ Data for March 11, 2010, were reported after the DOSS call, but DOSS suggested including the data, if available, to inform WOMT

DOSS discussed the potential benefits of the JPE-based versus absolute loss density triggers. All acknowledged the value of the first trigger, which is scaled to the current JPE.

- Some felt that this was adequate to protect the juvenile population. The first take concern level this year is 11,796, and the reconsultation level is 23,592. The current combined loss at the facilities is ~1,200. Because the combined loss is low, DWR concluded that protection beyond trigger #1 (*i.e.*, fish density trigger based on winter-run JPE) is not necessary at this time.
- Others felt that an additional fish density trigger not tied to the JPE would provide important protection against sporadic episodes of high salvage events.

DOSS advice:

After discussing the three options, above, and their associated pros and cons, DOSS advises WOMT and NMFS to implement option 3. Because neither the first or third triggers have been met, the DOSS advice to WOMT and NMFS is for the CVP and SWP to operate such that OMR is no more negative than -5,000 cfs.