

131 FERC ¶ 62,097
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Modesto Irrigation District
Turlock Irrigation District

Project No. 2299-057

ORDER MODIFYING AND APPROVING IN PART TUOLUMNE RIVER
ONCORHYNCHUS MYKISS TEN-YEAR MONITORING REPORT
PURSUANT TO ARTICLE 58

(Issued May 10, 2010)

1. On January 15, 2010, the Turlock and Modesto Irrigation Districts (Districts or licensee) filed their Tuolumne River *Oncorhynchus mykiss* (*O. mykiss*) Monitoring Report, pursuant to the Federal Energy Regulatory Commission's (Commission) Order On Ten-Year Summary Report Under Article 58¹ for the Don Pedro Project (FERC No. 2299). The project is located on the Tuolumne River in Stanislaus and Tuolumne Counties, California.

LICENSE REQUIREMENTS

2. On April 3, 2008, the Commission issued an order regarding the Districts' ten-year summary report of fisheries monitoring at the Don Pedro Project pursuant to article 58 of the project license as amended.² The order directed the Districts to implement their proposed *O. mykiss* monitoring plan, filed with the Commission on March 20, 2007, and revised July 16, 2007. To determine *O. mykiss* population abundance by habitat type beginning in 2008, the order required the Districts to conduct February/March and June/July *O. mykiss* population estimate surveys using two-phase snorkel surveys calibrated by electrofishing. The order also required the licensees to sample the fishery for anadromy in juvenile and adult *O. mykiss* beginning in 2008, conduct their proposed adult *O. mykiss* tracking study beginning in January 2009, and file any changes to the *O.*

¹ See 123 FERC ¶ 62,012. Order on Ten-Year Summary Report Under Article 58 (Issued April 3, 2008).

² See 76 FERC ¶ 61,117 Order Amending License and Dismissing Rehearing Requests (Issued July 31, 1996).

mykiss monitoring methods or schedules, with any agency comments, for Commission approval.

3. Finally, the order directed the Districts to file by January 15, 2010, a report for Commission approval that includes the results of *O. mykiss* monitoring. The order required that the report include a discussion of the monitoring results and recommendations for *O. mykiss* protection and/or for additional *O. mykiss* monitoring. The order stated that the report should be prepared in consultation with the National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (FWS), and the California Department of Fish and Game (CDFG) and that the Districts should allow the agencies 30 days to provide comments on the report prior to filing the final report with the Commission. Lastly the Districts were reminded that the report should include the resource agencies' comments and the Districts' response to any such comments.

DISTRICTS' FILING

4. The Districts' January 15, 2010 filing contained a report of *O. mykiss* monitoring conducted during 2008 and 2009. The report included: results of snorkel surveys and other monitoring of *O. mykiss* in the Tuolumne River; results of *O. mykiss* monitoring from other San Joaquin River tributaries; and a list of recommendations for additional protection and monitoring of the fishery. In their report, the Districts also stated that they were unable to conduct various components of their monitoring plan because the necessary sampling permits were denied by the resource agencies. These components included electrofishing calibration of their snorkel surveys, testing for anadromy in juvenile and adult *O. mykiss*, and the *O. mykiss* adult tracking study. Lastly, the licensee's January 15 filing included a copy of the cover letter sent to the resource agencies requesting their review, comments from the CDFG and the Districts' response to CDFG's comments, and a March and July 2009 *O. mykiss* population size estimate report.

Snorkel Surveys

5. The Districts conducted snorkel surveys to estimate *O. mykiss* populations downstream of La Grange Dam during July 1-16, 2008, March 16-25, 2009, and July 9-14, 2009. The July 2008 survey yielded an *O. mykiss* estimate of 2,472 juveniles and 643 adults; the March 2009 survey estimated 63 juveniles and 170 adults; and the July 2009 survey estimated 963 adults and 3,475 juveniles. The Districts' report also indicated that most juvenile and adult *O. mykiss* were found in riffle habitats, within the upstream head of run habitats, and throughout pool habitats.

Other Tuolumne River O. mykiss Data

6. The Districts report included the results of other fisheries monitoring data conducted in the Tuolumne River, including seining surveys, rotary screw trapping, and additional snorkel surveys. Seining surveys for *O. mykiss* conducted from 1983 to 2009 yielded very few *O. mykiss*, including four in 2008 and seven in 2009. Rotary screw trapping near the project began in 1995, and similar to the seining surveys, resulted in very few *O. mykiss* caught, including a total of 11 individuals in 2008 and one in 2009. The results of previous snorkel survey estimates were combined with the 2008-2009 samples to yield an expanded *O. mykiss* population estimate. The results of the expanded estimate showed that juvenile *O. mykiss* density in June was proportionally much higher than adult density, while the September surveys resulted in a higher adult density. The combined snorkel surveys also indicated that *O. mykiss* density was generally higher in the upstream reaches. Finally, the cumulative snorkel surveys recorded *O. mykiss* in water temperatures ranging from 11° to 22° C.

Habitat Restoration Monitoring

7. The Districts stated that previous studies relating habitat restoration projects to habitat use from the 2008-2009 population estimates have shown that both young-of-year and adult *O. mykiss* inhabited restoration sites, and juveniles demonstrated a high use of riffle habitat.

Other San Joaquin River Tributary Data

8. The Districts included a review of fisheries monitoring data from other San Joaquin River tributaries, including the Mokelumne, Calaveras, Stanislaus, and Merced Rivers. The Districts' summary of monitoring conducted at other San Joaquin River tributaries outlined the life history timing, presence, and abundance of *O. mykiss* in the aforementioned tributaries.

Recommendations

9. The Districts' report reiterated the recommendations they made in an August 24, 2009 report to the Commission,³ and included additional protection and monitoring

³ See Districts' Submittal of Report on Additional Protective Measures the Districts Are Willing To Undertake on a Voluntary Basis Pending Relicensing (Filed with the Commission on August 24, 2009).

recommendations for the benefit of the *O. mykiss* fishery. The Districts recommended the following protection measures.

- Continuation of augmented summer flow in dry year types to maintain or increase the extent of cool water habitat downstream of La Grange Dam.
- Continuation of variable summer flow operations in dry year types, including releasing additional instream flows on days with elevated forecasted ambient temperatures, in addition to maintaining higher than required base flows.
- Support state and federal regulatory efforts to minimize, and mitigate for, impacts of excessive fine sediment inputs to the river from poor land management practices in the project area.
- Continue to support implementation of previously identified gravel augmentation projects.

10. The Districts also recommended the following fisheries monitoring measures.

- Conduct July population estimates between river mile 40 and 52 in 2010-2011 using snorkel methods, with a stipulation to postpone or cancel surveys if flows exceed 350 cubic feet per second.
- Conduct snorkel surveys during 2010 and 2011 at previous snorkeling sites on an expanded schedule. The Districts propose to conduct reference count snorkel surveys during June and September, with 1-2 additional samples conducted between January and April. Sampling would be postponed or cancelled if flows exceed safe sampling conditions.
- Conduct an adult *O. mykiss* tracking study during 2010-2011 to document habitat use, movement patterns, in-river migration rates, and spawning locations of acoustically tagged individuals. Pending the issuance of scientific collection permits, the Districts propose to implant acoustic tags in up to 20 adult *O. mykiss* each year. The Districts propose to obtain individuals by angling between January and June, with the potential to use individuals collected at the Waterford rotary screw trap. Finally, the Districts propose to use three fixed station hydrophone locations, as well as mobile tracking to determine *O. mykiss* movement and habitat utilization.
- Conduct routine monitoring activities during 2010-2011, including seining and rotary screw trapping from January to May to document size,

abundance, migration, and distribution of juvenile salmonids and other fish species in the Tuolumne and San Joaquin Rivers. The Districts also propose to conduct year-round thermograph monitoring and analysis of flow/temperature conditions.

- Produce annual reports of monitoring conducted during 2010-2011. The Districts propose to include in each report, an annual compilation of *O. mykiss* records, including those from other Tuolumne River monitoring programs and with records from the resource agencies. The Districts propose to submit this report in lieu of the proposed 2012 monitoring report, pursuant to their 2007 study plan.⁴

11. In conclusion, the Districts note that their previously approved anadromy study contained in their 2007 plan was not supported by the fishery agencies due to the lethal sampling needed to obtain otoliths. The Districts note that they should continue to re-examine specific monitoring elements with the resource agencies beyond 2011.

AGENCY COMMENTS

12. On December 7, 2009, the Districts provided a draft of their report to the NMFS, CDFG, and the FWS. Per the Commission's 2008 Order, the resource agencies were to be given 30 days for review and comment. Comments were submitted by CDFG on January 5, 2010. On December 24, 2009, NMFS filed a request with the Commission for an extension of time to review and comment on the report. Attempts by Commission staff to coordinate the filing of NMFS' comments were unsuccessful.⁵ No follow-up comments were received from NMFS and no comments were received from FWS.

13. CDFG stated that they believe the monitoring in the Districts' report was not adequate for generating a statistically valid population estimate, and that the sampling frequency should be increased to adequately monitor *O. mykiss* throughout the year. CDFG also commented that they think the Districts did not demonstrate a clear

⁴ See Districts' Tuolumne River Fisheries Study Plan (Filed with the Commission on March 20, 2007) and modified in the Districts' Response to the Commission's Preliminary Staff Analysis of the Fisheries Study Plan (Filed July 16, 2007).

⁵ In December 2009, Commission staff spoke with NMFS staff, who indicated that they would be filing comments on the report. In April and May 2010, Commission staff left voice messages with NMFS staff to follow up on their progress in filing comments on the report. No response was received from NMFS.

relationship between river temperatures and *O. mykiss* density in the report, and requested that the Districts compare population densities and river temperature data at each survey site for the current study year. Furthermore, CDFG commented that the Districts' current monitoring efforts were inadequate for determining the population size and habitat need of *O. mykiss* in the Tuolumne River. Finally, CDFG provided three monitoring recommendations that include: conducting monthly snorkel surveys; extending the duration of Alaskan weir video monitoring through June of each year; and modifying and implementing the Districts' previously proposed acoustic tagging study.

14. In response to CDFG's comments, the Districts argue that their population estimates were adequate and stated that they reflected the best available sampling methodology to maintain protection of an endangered species. The Districts disagreed with CDFG's concern that the snorkel surveys were inadequate and stated that narrowing the existing confidence interval would require an unreasonable amount of additional monitoring. The Districts also stated that their March 2009 population estimate found few *O. mykiss*, and therefore recommended additional reference surveys instead to document river-wide distribution and habitat use. In response to CDFG's concern regarding an analysis of river temperatures and *O. mykiss* density, the Districts responded that the primary purpose of the Commission's April 3, 2008 order was to provide a population estimate, and that detailed information on temperature and abundance was already provided in their 2008 and 2009 population estimate reports. In response to CDFG's three recommendations, the Districts stated that monthly snorkel surveys would be unreasonable, given the large effort and expense involved. The Districts also stated that extended use of the counting weir would be overly expensive, while being difficult to operate during high flows and providing marginal results due to the expected low numbers of upstream *O. mykiss* migrants. Finally, the Districts agreed to commence acoustic tag studies in 2010, pending resource agency approval of the necessary sampling permits.

DISCUSSION

15. The Districts' report fulfills in part, the monitoring requirements of the Commission's April 3, 2008 order. As noted above, the Districts conducted February/March and June/July population estimates using snorkel methods; however, the Districts were unable to: calibrate their snorkeling population estimate using electrofishing surveys; test for anadromy in juvenile and adult *O. mykiss*; or conduct an *O. mykiss* adult tracking study, as a result of not being able to obtain the necessary sampling permits. We recognize that the failure to obtain the necessary sampling permits was beyond the control of the Districts. Nonetheless, collection of these data will help further characterize the fishery at the project and facilitate future management decisions. Therefore, the Districts should be required to continue to pursue the pending sampling

permits, to conduct the adult *O. mykiss* tracking study, and report back to the Commission every six months on the status of permit issuance until the permits are issued, or until the beginning of project relicensing on May 1, 2011, whichever comes first. The Districts' status report should also contain documentation of agency consultation, including any correspondence received from the agencies. The first status report should be filed with the Commission by November 5, 2010.

16. In their monitoring report, the Districts are also proposing to conduct various protection and monitoring activities. The Districts' proposal to release flows above the minimum flow requirement during the summer should improve coldwater habitat and should continue, in consultation with the resource agencies. However, the Commission's approval of the Districts' report and related recommendations should not be interpreted as a modification to the minimum flow requirements established in Article 37 of the project license for fish protection.

17. The Districts' proposal to mitigate for fine sediment inputs and to perform gravel augmentation is also beneficial and should be implemented to the extent possible. However, previous Commission orders did not require similar non-flow mitigative measures to be filed for Commission approval prior to their implementation.⁶ While this work is commendable, and should be implemented in cooperation with the resource agencies, approval of the licensee's report does not result in the creation of a new requirement to mitigate for fine sediment inputs or to perform gravel augmentation.

18. With regard to the Districts' monitoring measures, the proposal to continue snorkel surveys in 2010 and 2011 should help track *O. mykiss* population levels and habitat use at the project. Further, the licensee's proposal to conduct reference count snorkel surveys should help refine previous population estimates and increase the sampling number. These snorkel surveys should be implemented and made a requirement of this order.

19. As mentioned above, the Districts should be required to continue to pursue the necessary sampling permits to conduct their adult *O. mykiss* tracking study. The Districts propose to conduct this study during 2010 to 2011 to document habitat use, movement patterns, in-river migration rates, and spawning locations of acoustically tagged individuals. The Districts' proposal to conduct this monitoring is satisfactory and should be implemented as soon as the applicable permits are issued.

⁶ See 76 FERC ¶ 61,117. Order Amending License (Issued July 31, 1996).

20. The Districts are also proposing to conduct several monitoring activities that are already requirements of the project license and ensuing Commission orders.⁷ These monitoring activities include rotary screw trapping, seining, and thermograph monitoring. This monitoring should continue to be conducted as directed in the Commission's April 3, 2008 order.⁸ Commission approval of the Districts' January 15, 2010 monitoring report should not be construed as any modification to these existing monitoring requirements.

21. Finally, the Districts' proposal to produce annual reports of *O. mykiss* monitoring will help the Commission track compliance with the approved monitoring activities, and should be approved. However, the Districts did not include a date for filing this report with the Commission or the resource agencies. In order to maintain consistency with previous consultation and reporting requirements, the licensee should file their annual reports with the Commission by January 15, 2011 and January 15, 2012. The Districts should prepare their annual reports in consultation with NMFS, FWS, and CDFG. The Districts should allow the agencies at least 30 days to review and provide comments on the reports prior to filing them with the Commission.

22. The Districts' requested that their annual reports replace the need for the required 2005-2012 Fisheries Study Plan Summary Report, which is to be filed with the Commission by July 1, 2013. At this time, this request should be denied based on the fact that additional monitoring data may be collected following the conclusion of the *O. mykiss* monitoring and the summary report covers a broader range of data than the annual reports. *O. mykiss* monitoring is anticipated to conclude at the end of 2011, and any additional fisheries-related data collected since that time should be included and discussed in the final summary report, as required in the Commission's April 3, 2008 Order on Ten-Year Summary Report.⁸

23. In conclusion, the licensee's report satisfies in part, the monitoring requirements of the Commissions April 3, 2008 order, pending the completion of the adult *O. mykiss* tracking study, or waiver thereof should the necessary permits be denied. Furthermore, the licensee's accompanying monitoring proposals, as modified, should be approved.

⁷ See 123 FERC ¶ 62,012 (Issued April 3, 2008).

⁸ See 123 FERC ¶ 62,012.

The Director Orders

(A) Turlock and Modesto Irrigation District's (Districts) *Oncorhynchus mykiss* (*O. mykiss*) monitoring report, filed on January 15, 2010, pursuant to the Commission's April 3, 2008 Order on Ten-Year Summary Report Under Article 58 for the Don Pedro Project (FERC No. 2299), as modified in paragraphs (B) and (C), is approved.

(B) The Districts shall continue to pursue the appropriate agency permits to conduct their adult *O. mykiss* tracking study, and file a status report with the Commission every six months on the status of permit issuance until the permits are issued, or until the beginning of project relicensing on May 1, 2011, whichever comes first. The Districts' status reports shall also contain documentation of consultation with the California Department of Fish and Game, U.S. Fish and Wildlife Service, and the National Marine Fisheries Service. The reports shall include any correspondence received from the agencies and the Districts' response to the comments. The first status report shall be filed with the Commission by November 5, 2010.

(C) The licensee shall file annual reports of the results of all additional *O. mykiss* monitoring at the project. The annual reports shall be filed with the Commission by January 15, 2011 and January 15, 2012. The reports shall be prepared in consultation with the National Marine Fisheries Service, U.S. Fish and Wildlife Service, and California Department of Fish and Game. The Districts shall allow the agencies 30 days to provide comments on the reports prior to filing the reports with the Commission. The reports shall include the agencies' comments and the Districts' response to any received comments. These additional annual reports shall not replace the required Final 2005-2012 Fisheries Study Plan Summary Report, which is to be filed with the Commission, by July 1, 2013, pursuant to the Commission's April 3, 2008 Order on Ten-Year Summary Report Under Article 58.

(D) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. § 385.713.

Edward A. Abrams
Director
Division of Hydropower Administration
and Compliance

Document Content(s)

P-2299-057.DOC.....1-9