



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**

NATIONAL MARINE FISHERIES SERVICE  
Southwest Region  
501 West Ocean Boulevard, Suite 4200  
Long Beach, California 90802-4213

In response refer to:  
2011/00520: SCG

MAR 14 2011

Dan Pfeifer, Wastewater Utility Manager  
City of Ventura  
Ventura Water Reclamation Facility  
P.O. Box 99  
Ventura, California 93002

Dear Mr. Pfeifer:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the City of Ventura's (City) February 2011 Draft Synthesis Report: Subwatershed Study of the Santa Clara River Estuary (SCRE), Ventura County, California (Report). The draft Report outlines the results of a series of studies required by the Los Angeles Regional Water Quality Control Board (Board) for the City's National Pollutant Discharge Elimination System (NPDES) Permit No. CA0053651. The studies are intended to assist the Board in determining whether discharge of the City's treated wastewater into the SCRE provides habitat enhancement as defined by the Board's Enclosed Bays and Estuaries Policy. The draft Report is of concern to NMFS because the Santa Clara River is within the endangered Southern California Distinct Population Segment (DPS) of steelhead (*Oncorhynchus mykiss*), and is critical habitat for this species. At a meeting of February 10, 2011, to discuss the results of the draft Report, the City requested written comments from agencies and stakeholders with the intention of incorporating comments into the final Report. To this end, NMFS is offering the following comments on the draft Report, with the intention of providing additional comments to the City and the Board on the final Report when it becomes available.

- The Southern California DPS of steelhead is listed as "endangered" under the U.S. Endangered Species Act (ESA). The draft Report incorrectly states on page 130 that the DPS is listed as "threatened". This inaccuracy needs to be corrected in the final Report.
- The draft Report states in chapter 7 (Pages 128, 130, and 132) that adult and juvenile steelhead use the SCRE mainly as a migration corridor, and juvenile steelhead rear in the estuary only for short periods and do not use the estuary as summer-rearing habitat. NMFS believes these conclusions are not accurate and should be omitted from the final Report for several reasons. First, the conclusions are based, in part, on a single study of steelhead smolt residence times within the SCRE performed by Dr. Elise Kelley in 2008, which showed that



smolts left the estuary after a few days. The findings of Dr. Kelley's study may be an artifact of anthropogenic activities that have altered the natural characteristics and conditions of the estuary and therefore its functional capacity for steelhead. Additionally, because it is known that steelhead smolts normally use estuaries for acclimation to an ocean-based life stage and emigrate to the ocean after a short period of time, it is inappropriate to conclude from this study that juvenile steelhead do not use the SCRE for extended over-summer rearing. Secondly, recent studies (*e.g.*, Bond *et al.* 2008) have shown that juvenile steelhead rear in estuaries for extended periods during the summer, and more research is needed in the SCRE to understand juvenile steelhead rearing dynamics during the summer. Lastly, the SCRE breaching event of September 2010 clearly indicated that juvenile steelhead have been rearing in the estuary during the summer.

- NMFS believes that there is significant uncertainty associated with the model used to predict the amount and extent of estuarine habitat available to steelhead under the three wastewater discharge scenarios analyzed in the draft Report. While the draft Report does contain some discussion of uncertainties inherent in the model, NMFS recommends that a broader discussion of the uncertainties associated with the model, and how they affect the results, is provided in the final Report. NMFS also recommends that Figure 11-2, which estimates acreage of estuary habitat available to steelhead under the three discharge scenarios, includes error bars to display the range of uncertainty inherent to the model.
- The draft Report lacks a clear assessment of the range of water depths available to steelhead within the SCRE under differing (*e.g.*, open vs. closed) estuary conditions, and does not describe the percentages of estuary area that are of specific depth under differing conditions. NMFS recommends that the final Report includes a detailed discussion of the relation between estuary stage, estuary area, and the range of depths available to steelhead within the estuary. NMFS also recommends that the final Report includes an analysis of how the amounts of deepwater habitat change relative to overall estuary area under the three wastewater discharge scenarios.
- The draft Report states in chapter 9 that habitat conditions within the SCRE are “apparently not favorable for steelhead over-summering” (Page 161). NMFS disagrees with this characterization of the estuary because it appears to be based on past water quality data from grab samples restricted to a few locations within the estuary. Thus, the data are inadequate to determine the suitability of habitat for steelhead within all areas of the estuary over time and space, or under a future condition where the wastewater discharged into the SCRE is of higher quality than it is presently (*e.g.*, discharge alternatives 2, 3, and 5). Furthermore, the water quality data presented in the draft Report clearly show that water quality parameters (*e.g.*, temperature and dissolved oxygen) at different locations in the estuary are within steelhead tolerances a majority of the time. Thus, NMFS recommends the conclusions in chapter 9 that imply habitat conditions within the SCRE are not suitable for steelhead over-summering are omitted from the final Report.

NMFS understands that after the City's consultant produces the final Report, it will be given to the Board to assist them in making a determination regarding the renewal of the City's NPDES Permit. NMFS requests that prior to its renewal, the Board allows for agency review and

comment on the City's NPDES Permit, as provided for in the Memorandum of Agreement between the Environmental Protection Agency, Fish and Wildlife Service and National Marine Fisheries Service regarding enhanced coordination under the Clean Water Act and Endangered Species Act; Notice (66 FR 11202; February 22, 2001).

NMFS appreciates the opportunity to review and provide comments to the City on the draft Report. Please contact Stan Glowacki at (562) 980-4061 or via email at Stan.Glowacki@noaa.gov if you have any questions concerning this letter, or if you require additional information.

Sincerely,



Penny Ruvelas  
Southern California Supervisor  
for Protected Resources Division

cc: Samuel Unger, Regional Water Quality Control Board  
Michael Lyons, Regional Water Quality Control Board  
Gerhardt Hubner, Watershed Protection District  
Karen Waln, City of Ventura  
Mary Larson, CDFG  
Chris Dellith, USFWS  
Copy to File 151422SWR2011PR00520

Citations:

Bond, M.H., Hayes, S.A., Hanson, C.V., and R.B. MacFarlane. 2008. Marine survival of steelhead (*Oncorhynchus mykiss*) enhanced by a seasonally closed estuary. Canadian Journal of Fisheries and Aquatic Sciences 65: 2242–2252.