# CONCLUSIONS

The decline of California's Steelhead populations and habitat is illustrative of a trend of declining biodiversity due to habitat loss and degradation. Steelhead are unique in that they are dependent on essentially all habitats of a river system: the estuary for rearing and acclimation to ocean water; the main channel for migration between the ocean and upstream spawning and rearing areas; and the tributaries for spawning and rearing. This dependence on the entire river system explains, in part, why Steelhead was one of the first Southern Steelhead in California to experience dramatic declines in numbers and in distribution. (CDFG 1969.)

Restoration of Steelhead populations is intimately tied to the establishment of a new ethic for management of California's rivers and streams – an ethic that places a much higher priority on the continuance of essential physical, biological, and ecological processes in rivers that are regulated or proposed for development. In simpler terms, rivers need to flow and contain sufficient water to maintain their aquatic biota in good condition. Without this, aquatic habitat will continue to degrade, species will continue to decline, and there will be continued impasses on water usage and development. (CDFG 1969.)

The streams that flow through the City of Ojai are both in good condition and in poor condition, depending on the stream reach and past and present land uses in or adjacent to the streams. San Antonio Creek, which passes through the southeastern portion of the City is generally in good condition except where it passes through the Soule Golf Course, a Ventura County park facility. The best and largest Ojai stream for Steelhead (other than San Antonio Creek), Stewart Canyon Creek, has fairly good habitat in its downstream reach, but it is converted solely to flood water conveyance as it passes through the City. This has resulted in the truncation of suitable spawning and rearing habitat for Steelhead in Stewart Canyon north of the City.

Urban and rural runoff from parcels within the City have largely resulted in degraded water quality, and is a primary source for coliform bacteria contamination. The high percentage of impervious cover within the City contributes to poor water quality downstream.

All the reaches of streams that flow through the City are contaminated with invasive non-native plants, some intentionally planted. Natural vegetation has largely been eliminated along most reaches of Ojai streams. This has resulted in reduced habitat values for wildlife, both aquatic and terrestrial.

Wetland functions have been severely decreased within the City as a result of typical urban development.

Even with the general poor condition of Ojai's streams, there are many opportunities to protect what remains, and enhance and restore stream habitat conditions. Much can be done to improve water quality through minor changes in human practices and monitoring.

A few large-scale stream restoration projects could significantly restore favorable conditions for Steelhead; however, those projects would likely be very expensive. Some stream restoration projects simply may not be feasible due to high cost, limited benefit, and disruption to residents.

Preserving intact habitat should be accomplished. Remaining stream habitats within the City should be protected and enhanced. Implementation of recommended actions in this should improve conditions for Steelhead and other aquatic and riparian species, and water quality will be improved.

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#### PERSONAL COMMUNICATIONS

Pratt, Jeff, Director, VCWPD, email to David Magney (dmagney@aol.com) dated 14 February 2004 – "WPD would of course be open to modifications of its facilities to achieve fish passage with the caveat that you mentioned, i.e., full flood control function remained. You should coordinate any proposed activity with our advanced planning section (Sergio/Denny). Hope this helps. Jeff Pratt, P.E., Director, Watershed Protection Department, jeff.pratt@mail.co.ventura.ca.us"

## ACKNOWLEDGEMENTS

This Ojai streams assessment and restoration report was written by Cher Batchelor and David Magney. Mr. Magney and Kenneth Niessen prepared the GIS database and graphics for this report. Mr. Magney managed all aspects of this project under the direction of Glenn Hawks of the City of Ojai Public Works Department.

Mr. Magney, Ms. Batchelor, Ken Niessen, and James Castle conducted the streams characterization field study, while Ms. Batchelor, Brian Holly, Zak Hansted (C.R.E.W.), and Erik Blundell (C.R.E.W.) conducted the streams water quality sampling field study. Ms. Batchelor and Mr. Holly performed in-lab tests for water quality parameters that could not be measured in the field. Water quality sampling equipment was loaned to DMEC and C.R.E.W. for this project by Nordhoff High School, of the Ojai Unified School District, for which the City is grateful.

Mr. Holly conducted cursory wildlife surveys at each Water Quality Sampling Station. Mr. Holly, Mr. Magney, and Elizabeth Chattin conducted a nighttime cursory wildlife survey in three creeks of Ojai. Ms. Batchelor, Mr. Magney, Mr. Niessen, and Mr. Castle reported all observed wildlife during the streams characterization studies throughout the streams of Ojai.

Barry Rands (Hawks & Associates) analyzed hydrology data of each of the streams to identify discharge rates for each subwatershed, and to determine how they affect the Ojai streams. These data were used to identify constraints and opportunities for any stream habitat restoration projects proposed under this study.

Glenn Hawks (Hawks & Associates) reviewed a draft of this report. John O'Brien, Associate Fisheries Biologist with CDFG, managed the grant for this project and provided comments on the final draft of this report.

This report was presented to the public at the Ojai City Hall on 27 April 2005. Comments were received and incorporated into this report as appropriate based on that presentation.