



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
777 Sonoma Ave., Room 325
Santa Rosa, CA 95404-6528

March 21, 2006

Chair **Tam Doduc** and Members of the State Water Board
c/o Selica Potter, Acting Clerk to the Board
State Water Resources Control Board
Executive Office
1001 I Street, 24th Floor
Sacramento, California 95814

Dear Ms. Doduc:

My name is Charlotte Ambrose and I am currently the North Central California Coast Recovery Coordinator for the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS). My current responsibility is to facilitate the development of recovery plans for salmon and **steelhead** populations within my Recovery Domain; a Domain that includes the Garcia River. My familiarity with the Garcia extends back to 1994 while working for Coastal Forestlands, Ltd. as their biologist conducting both terrestrial and aquatic field surveys and monitoring. Among my responsibilities were to:

- * schedule, supervise, conduct, and coordinate aquatic/terrestrial monitoring for harvest planning;
- * work closely with foresters during timber harvest plan preparation (*e.g.*, writing biological assessments **and/or** cumulative effects sections of timber harvest plans and responding to California Department of Forestry);
- * review, and provide technical advice on, aquatic module of the draft **Sustained Yield Plan**;
- * collect channel **assessment/riparian** shade field data for Sustained Yield Plan aquatic modeling;
- * institute long-term stream temperature monitoring, spawning gravel **sampling**, and fish population surveys;
- * analyze **instream** monitoring results and provide information for **harvest** documents; and
- * conduct spawning surveys for anadromous fish.

My field work on the portions of the Garcia owned by Coastal Forestlands extended nearly six years. To preface, I am not a fluvial **geomorphologist**; and my observations **are** not statistically



verified; however, results from monitoring and field observations indicated the Garcia supported an excessively high bed load. This was evidenced by shallow pools, lack of pools, simplified **geomorphology**, and the appearance of a weak sediment sorting process (*e.g.*, **bars/riffles/pools** were all observed to have small, and nearly identically sized, particle distribution) suggesting sediment loading was in excess of the channel's capacity to transport and sort bed load sediment.

The poor condition of the mainstem Garcia was witnessed by long shallow runs with little channel meander and deficient **streamside** canopy composition and structure. The annual site monitoring of temperature, particle size distribution using McNeil Sampling protocol and channel assessments additionally suggested high temperatures with excessive daily/weekly variability, elevated fine sediments and generally poor **instream/riparian** habitat conditions for **salmonids** across many areas of the Garcia.

In the summer of **2005**, I was invited to a field visit on the Garcia with various parties to discuss the 35,000 acre Conservation Fund acquisition and the developing forest management plan. The locations along the Garcia we visited, fortuitously, were many of the same sites where the temperature, sediment, and channel monitoring stations had been located. I have not seen recent data nor have I revisited the Garcia since 2000.

The improved condition of the mainstem Garcia I observed during the site visit was remarkable. Sites that lacked meander, depth, particle size variability, and riparian canopy in **1999** were observed in 2005 with relatively deep pools, diversity of gravel sizes, meandering channel patterns, improved flows, and an extensive riparian hardwood canopy. With improved habitat, **salmonid** populations should be expected to thrive through mechanisms such as:

- Pool habitat availability increasing likelihood of survival for rearing juveniles and spawning adult salmonids.
- Reduced bedload will provide equilibrium for summer instream temperatures due to an increased volume of water and reduced solar inputs. This will facilitate, where feasible, a reduced and more stabilized summer temperature for juvenile salmonids that will support their ability to feed, resist disease, and increased competitive rigor.
- Reduced instream sediment and improved transport capacity will: (1) improve adult spawning and quality spawning gravel, decrease turbidity for improved feeding ability, and (2) flush pools and interstitial spaces between gravels of fine sediment thereby increasing egg-to-fry emergence survival and providing intergravel and pool **refugia** for juvenile salmonids.

While these are only observations, my professional opinion is that this system is noticeable recovering; a recovery, in large part, the result of the educational, cooperative and regulatory process associated with the total maximum daily load (**TMDL**) and associated Action Plan.

The Garcia River **is** an important system for steelhead, Chinook salmon, and coho salmon. In fact, Central California Coast Coho Salmon was recently re-listed from Threatened to Endangered by **NMFS**; a species known to persist in the Garcia. The recovery of the Garcia has tremendous implications to the conservation and recovery of salmonids (especially coho salmon).

I look forward to investigating the conditions on the Garcia further and incorporating any new data into our developing recovery plans for salmonids. Thank you for the opportunity to provide my perspective. If you have any questions regarding comments in this letter, please contact me at (707) 575-6068 or via email at charlotte.a.ambrose@noaa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Charlotte A. Ambrose". The signature is written in black ink and is positioned above the typed name.

Charlotte A. Ambrose
Recovery Coordinator
Protected Resources Division

Enclosure

Cc: Alan **Levine**, Coast Action Group