

Memorandum

To: Alameda Creek Fishery Restoration Workgroup Members

From: Paul Salop

Applied Marine Sciences, Inc.

Laura Kilgour

Alameda County Public Works Agency

Date: 6/28/00

Re: Enhancements of Steelhead Populations in Alameda Creek

At the last Alameda Creek Fisheries Restoration Workgroup meeting (May 4), it was decided that a separate meeting should be held to discuss the technical, biological, and political issues involved with enhancement of the steelhead run in Alameda Creek. This meeting was held on June 16, 2000, and was attended by Jonathan Ambrose of NMFS, Pete Alexander and Steve Quick of EBRPD, Pat Coulston of CDFG, Jeff Hagar of HES, Laura Kilgour and Paul Modrell of ACPWA, Jeff Miller and Phil Scordelis of ACA, Paul Salop of AMS, and Jerry Smith of SJSU. This memo reports on the results of the meeting.

The consensus opinion of those attending the meeting was that some form of enhancement would be beneficial to the steelhead restoration effort to (1) limit the possibility of instituting a "founder" effect within the run, whereby a very few spawning individuals greatly influence the genetic makeup of the resulting population, and (2) select more desirable "native" stock to repopulate the newly-opened watershed over other existing populations that may otherwise be able to gain an initial foothold. It was also agreed that this enhancement would be more likely to succeed if it is initiated prior to removal of all existing barriers.

Two potential means of enhancement discussed at the meeting were artificial propagation at existing hatcheries and transport of land-locked smolts, if feasible, below existing dams. Jonathan Ambrose of NMFS informed the group that in either case, prior to implementing enhancement operations, NMFS would require a genetic analysis of the fish to be used to verify that these animals are an appropriate stock to use for enhancement operations.

It is therefore clear that it is necessary to identify an appropriate trout stock that could be used for enhancement. The group discussed this issue, and concluded that the fish isolated behind Calaveras and San Antonio Reservoirs could potentially meet the criteria of NMFS for use in enhancement (Calaveras is the oldest dam in the system and therefore offers perhaps the best chance at "native" stock). The group suggests that the following steps be taken:

1. Collect and organize available information regarding the genetic make-up of steelhead trout residing in Calaveras and San Antonio Reservoirs. This information can be in the form of one or more of the following: access to genetic studies previously-performed by the SFPUC, access to fin clips, if available, that were used in the previous genetic analyses, or access to the reservoirs to obtain new samples for genetic analysis.
2. Collect and organize available information on smolt timing and quantities (if available), and / or obtain permission to perform smolt trapping on SFPUC lands.

Ideally, sampling operations would be initiated as soon as is appropriate. If needed, sampling in and / or behind reservoirs for genetics analysis could be performed beginning at any time. Smolt trapping could be implemented beginning in April of 2001 and at similar periods in subsequent years.

Subsequent to the June 16th meeting, Josh Milstein of the San Francisco City Attorney's Office indicated that the SFPUC is currently in the process of working out a Scope of Work to have hydrological studies and smolt trapping performed on tributaries to Calaveras Reservoir. Josh hopes to have the Scope available for review by the next Workgroup meeting. Information gathered by these studies will then be available to the Workgroup. Additionally, Josh indicated that he will forward the request regarding genetics samples on to the SFPUC for their review.