

**TESTIMONY OF DAVID K. YOUNG
REGARDING
U.S. BUREAU OF RECLAMATION
WATER RIGHTS PERMITS 11308 AND 11310**

INTRODUCTION

I, David K. Young, declare as follows:

I am an Environmental Specialist for the South Central California Area Office of the United States Bureau of Reclamation ("Reclamation"), Mid Pacific Region. I have worked for Reclamation since 1998. I received my Bachelor of Arts degree in Zoology and my Master of Arts degree in Biology from California State University Fresno located in Fresno, California. I worked as a fishery biologist for the United States Bureau of Land Management in Utah and Oregon from 1979 to 1995. I have been employed as an environmental specialist with the Bureau of Reclamation since 1998. A true and correct copy of my qualifications is submitted contemporaneously herewith as Exhibit Number **DOI-11** and incorporated herein by reference.

Since some of the activities pertinent to my duties as an environmental specialist and my responsibilities related to the Cachuma Project occurred prior to my employment with Reclamation, I reviewed the relevant files and other documents to become familiar with all aspects of this project. The statements made in this declaration are based upon information or fact of which I have personal knowledge, or are based upon information that I believe to be true. If called as a witness, I could and would testify competently to the statements contained in this declaration.

PURPOSE OF TESTIMONY

The purpose of this testimony is to provide a detailed description of the conferencing and consultation process, pursuant to Section 7 (a) (2) of the Endangered Species Act of 1973 (ESA), as amended, between Reclamation and the National Marine Fisheries Service (NMFS) for various administrative, safety, construction, and operational activities related to the Cachuma

Project that have occurred since 1993. The fish species that is the focus of my testimony is the Southern California Evolutionarily Significant Unit of steelhead/rainbow, *Oncorhynchus mykiss*.

CACHUMA PROJECT CONTRACT RENEWAL

Reclamation requested, pursuant to the National Environmental Policy Act (NEPA), that NMFS review and provide comments concerning the Draft Environmental Impact Statement/Environmental Impact Report, for the Cachuma Project Contract Renewal, Santa Barbara County, California, dated, November 14, 1994.

NMFS provided comments to Reclamation. NMFS stated, "Steelhead trout are depleted throughout most of their range in southern California" and "NMFS is reviewing the status of steelhead trout through their range in California, Oregon, Washington and Idaho to determine whether these populations are an endangered or threatened 'species' under the ESA". NMFS also commented that significant impacts have occurred during 40 years of operation and there should be a strategy of mitigation for new and existing impacts. NMFS concluded their letter by suggesting six (6) mitigation or enhancement measures be implemented: 1) minimize or elimination of gravel mining, 2) enhance steelhead access and use in tributaries and the mainstem river, 3) development of flow regimes that give habitat highest consideration to optimize critical life stage of steelhead, 4) implement habitat modification on and off the mainstem river that would help optimize steelhead populations, 5) implement mandatory water conservation plans and 6) implement aggressive ground water management plans to protect ground water resources.

These habitat enhancement measures were subsequently developed for the Fish Management Plan (FMP). (**CCRB Exhibit 35**) Reclamation informed NMFS that gravel mining operations in the river were not subject to Reclamation's approval.

BRADBURY DAM SEISMIC CORRECTIVE ACTION

Conferencing, pursuant to section 7(a) (4) of the ESA, is designed to help Federal agencies identify and resolve potential conflict between an action and species conservation early in a

project's planning phase and to develop recommendations to minimize or avoid adverse effects to a proposed species or proposed critical habitat.

In a letter to NMFS dated September 6, 1996, Reclamation requested conferencing for: 1) ongoing operations of Bradbury Dam, 2) ongoing fisheries studies, 3) riparian vegetation studies and 4) planned seismic corrective action at Bradbury Dam. NMFS responded by letter, dated November 27, 1996. NMFS requested additional documents from Reclamation relevant to the Cachuma Project activities and proposed a target date of late spring, 1997, for completion of conferencing. NMFS provided its Conferencing Report by letter dated March 10, 1997. The report identified measures necessary to eliminate potential adverse affects to steelhead that might result from the seismic corrective action at Bradbury Dam. The March 10 Conferencing Report concluded: "if the Southern California ESU of steelhead trout become listed and the measures identified in this letter are adhered to, no further section 7 consultation with NMFS will be required".

Steelhead, the anadromous form of *Oncorhynchus mykiss*, was listed as endangered species on August 18, 1997.

HILTON CREEK CONSULTATION

Reclamation constructed a permanent watering system on Hilton Creek as mitigation for habitat loss from the proposed Bradbury Dam seismic corrective action. The watering system consisted of a water supply pipeline system connected to an existing drainpipe along the outside of the spillway wall at Bradbury Dam, three (3) outlet works, and the realignment of a portion of Hilton Creek streambed. Two of the outlet works would provide water to Hilton Creek and one (1) outlet works would provide water to the stilling basin below Bradbury Dam. Reclamation consulted with NMFS under section 7 of the Endangered Species Act. NMFS determined that the construction of the water supply pipeline was unlikely to adversely affect steelhead/rainbow.

BRADBURY DAM OPERATION CONSULTATION

Reclamation initiated formal consultation with the NMFS of current operations and maintenance of Bradbury Dam including operations of Hilton Creek pipeline on April 7, 1999. A Biological

Assessment (BA) was written and submitted to NMFS. (DOI-12) Proposed actions analyzed in the BA described an operational strategy and conservation measures that would promote recovery and avoid unauthorized take of steelhead trout. The term "take" is defined in Section 3 (18) of the ESA as means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" of listed species of fish or wildlife without a special exemption.

The proposed project described in the biological assessment contained three (3) elements: 1) proposed dam operations, for water storage and supply, downstream water rights releases, emergency winter operations and maintenance activities; 2) conjunctive operation of releases for water rights with releases for fish passage and rearing that would be provided through reservoirs surcharge, and conjunctive use with Central Coast Water Authority; and 3) conservation measures to protect and promote recovery of steelhead trout such as Hilton Creek habitat improvement, fish rescue protocol, establishing conservation easements, modification of existing tributary passage barriers to enhance fish passage and fish habitat management.

NMFS responded that the BA did not provide sufficient information to begin consultation. NMFS requested clarification regarding the frequency of mixing state water and Cachuma Lake water during the downstream water releases, and more specific designs and construction schedules for habitat improvements in Hilton Creek.

Additional information was provided to NMFS and formal consultation began on June 14, 1999. During formal consultation, several additional issues were identified as needing further data analysis. Reclamation and NMFS mutually agreed to extend the consultation period. Both agencies continued to meet and hold discussions regarding possible modifications to dam operations. As a result of these discussions Reclamation submitted a revised project description. (DOI-13)

In the revised project description, or section 3 of the BA, Reclamation proposed certain changes to operations relative to baseline conditions. (See DOI-13) These changes included:

- Surcharging the reservoir during spill years
- Establishing target flows below Bradbury Dam
- Use water available from the surcharge to benefit steelhead by
 - Creating two water accounts, Fish Passage Account and Adaptive Management Account. Their purposes described as:
 - Fish Passage Account used to supplement storm events to provide fish passage.
 - Adaptive Management Account used to increase releases for mainstem rearing, additional flows to Hilton Creek or supplement fish passage.

The BA, including the revised section 3, described and analyzed the proposed federal action. (See DOI-12 and DOI-13) This involved the operation and maintenance of Bradbury Dam, surcharging Cachuma Lake, conjunctive use of water rights releases for steelhead migration, water releases for summer rearing habitat, modification of road crossings that block steelhead migration passage, operation of the Hilton Creek pipeline and continued impoundment of water at Bradbury Dam, and facility maintenance and operation.

NMFS was informed that some of the proposed projects were joint projects between Reclamation and the Cachuma Operations and Maintenance Board. Examples of these projects are modifications to road crossings that block access for migrating steelhead. All road crossings are located on non-federal land on tributaries below Bradbury Dam

NMFS issued its Biological Opinion, *U.S. Bureau of Reclamation Operation and Maintenance of the Cachuma Project on the Santa Ynez River in Santa Barbara County, California* (BO) to Reclamation. (SWRCB Exhibit by Reference, #11) The BO concluded the following "...after reviewing the best scientific and commercial data available, the current status of steelhead, the environmental baseline for the action area, the effects of the proposed projects, and the cumulative effects, it is NMFS' biological opinion that the proposed action is not likely to jeopardize the continued existence of the Southern Californian steelhead ESU, and is not likely

to destroy or adversely modify steelhead critical habitat...". In addition NMFS further stated on page 67 of BO that:

"Cachuma Project operations and maintenance, if carried forward many years into the future, will provide the small Santa Ynez River steelhead population with improved critical habitat conditions in the form of increased migration opportunity and better access to spawning and rearing areas in the watershed below Bradbury Dam, allowing the population to increase in size. Therefore the proposed project is likely to appreciably increase the likelihood of survival and recovery of the ESU by increasing its numbers and distribution".

INCIDENTAL TAKE STATEMENT

NMFS provided Reclamation with an incidental take statement pursuant to Section 7(b)(4) of the Endangered Species Act. The amount or extent of take is found on pages 69-70 in the BO.

Incidental take is any take of a listed species that results from, but is not limited to and not intended as part of the agency action. Take means to harass, harm, pursue, hunt, shoot, trap, capture or collect, or attempt to engage in any such conduct of a listed fish or wildlife species without a special exemption under the Endangered Species Act. The BO determined that "take" associated with Cachuma project operations were incidental to and not intended as part of the agency action, provided that such taking was in compliance with terms and conditions. These terms and conditions specify methods by which the reasonable and prudent measures are to be accomplished. They are non-discretionary and must be undertaken by Reclamation for the exemption in section 7(o)(2) to comply. The anticipated amount and extent of incidental take can be found on page 68 of the BO.

The BO included fifteen (15) Reasonable and Prudent Measures (RPM) with specific nondiscretionary Terms and Conditions. RPMs are necessary and appropriate to minimize the impact of incidental take. They include actions that occur within the action area, involve minor changes to the project, and reduce the level of take associated with the project activities.

Implementation of RPMs are intended to minimize the impacts of incidental take to the extent reasonable and prudent. RPMs are considered reasonable and prudent when they are consistent with the proposed action's basic design, location, scope, duration and timing.

CONSERVATION RECOMMENDATIONS

Section 7(a) (1) of the ESA directs federal agencies to utilize its authority to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. NMFS recommended that Reclamation pursue conservation recommendations associated with its proposed action related to Bradbury Dam. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat and to help implement recovery plans.

The BO included the following conservation recommendations:

- Investigate and implement alternative means of providing water to downstream users from the water rights releases that would avoid and minimize adverse effects to listed steelhead/rainbow within the section of the mainstem river 3.5 to 10 miles downstream from Bradbury Dam,
- Design and implement a study to determine effective passage for steelhead/rainbow at Bradbury Dam including upstream passage, a downstream smolt trapping facility, screening of the Tecolote Tunnel and other water intakes,
- Design and implement a study to determine if there are any impacts on the ecological characteristics of the Santa Ynez River due to flood flow reduction.

SUMMARY OF BIOLOGICAL OPINION RELATED ACTIONS

Since the issuance of the BO, Reclamation has operated the Cachuma project in accordance with Reasonable and Prudent Measures.

- Pool habitat for fish has been maintained in the Alisal and Refugio reaches of the Santa Ynez River in both 2001, a spill year and during 2002, the first year following a spill event.
- Releases for target flows have been made through the Hilton Creek pipeline or through the outlet works of Bradbury Dam. The record of releases can be viewed on the internet at the Reclamation web site at <http://www.usbr.gov/mp/cvo/html/reports.html> and then choosing Cachuma.
- Reclamation has had difficulty maintaining target flows at Highway 154 due to several reasons.
 - Presence of beaver (*Castor canadensis*) colonies and dams has impeded flows in the river above Highway 154.
 - The presence of a deep underlining bedload depositional area just upstream from the Highway 154 Bridge. At that location the river channel is wider with a low gradient and permeable substrate, which causes flows to go subsurface near 154. Subsurface instream flows reappear about 100 feet downstream from the Highway 154 Bridge.
 - Loss of public access by to the 154 monitoring station. The monitoring station at Highway 154 Bridge was inadvertently established on private land in 1995. However, since 2001 the landowner has denied access to the station. There are no other sites in the vicinity of the Highway 154 Bridge that meet the hydrologic criteria to conduct an instream flow measurement.
- A year round supply of water delivered through the Hilton Creek pipeline, constructed in 1998-1999, provides an instream flow for Hilton Creek. Flows have been maintained between 3 and 4 c.f.s. As a result, riparian vegetation has been reestablished along the stream's course, water temperatures remain below 20 C and dissolved oxygen levels consistently ranges above 5 ppm. Steelhead/rainbow trout have been observed in Hilton

Creek throughout the year. Adults have constructed redds, spawned; fry have been produced and young of the year reside in the creek. Maintaining flows in Hilton Creek is the first priority for steelhead/rainbow trout rearing support as required in the BO.

- Extensive work has been done to develop a strategy, referred to as an operational guideline, for supplementing steelhead/rainbow migration following peak storm events by shifting supplemental passage releases away from climatic "dry years" to years when Bradbury Dam spills and the first two years following a spill.
- A fish passage barrier has been modified in Salsipuedes Creek. This has opened up spawning and rearing habitat farther upstream.
- Extensive fisheries investigations and monitoring of steelhead/rainbow distribution, abundance, spawning sites and habitat conditions is continuous.
- The BO established an Adaptive Management Committee (AMC). Reclamation and the AMC are working to verify the use of the instream flow Model, Santa Ynez River Hydrology River version 498 (Model), in predicting triggers to initiate releases from Bradbury Dam. Releases are made to supplement fish passage during storm events. Storm events from rainfall increase the instream flow of the tributaries and mainstem river. The steelhead migration season, immigration and emigration, occurs between January and May. When the sand bar is present at the entrance of the lagoon at the mouth of the Santa Ynez River, access for fish into the river is blocked. When the sand bar has been breached, adult steelhead will migrate into the river near the end of instream flows generated from storms events. Reclamation informed NMFS that implementing this term and condition within 6 months of the date of the BO could not be accomplished because the instream flow Model was being used extensively for data analysis for the Board's EIR and requested an extension.

Reclamation continues to implement the Terms and Conditions for the RPMs of the BO. In addition, a joint environmental document analyzing and disclosing the effects of the FMP and BO (FMP EIR/EIS) is being prepared pursuant to NEPA and CEQA. The Draft FMP EIR/EIS was released July 24, 2003, and the 60-day public comment period closed on September 24, 2003. The lead federal agency under NEPA is Reclamation and the lead agency under CEQA is the Cachuma Operations and Maintenance Board.

Releases are made from Bradbury Dam to provide water for summer rearing habitat in the mainstem river between Bradbury Dam and Highway 154, and provide year round habitat for steelhead/rainbow inhabiting Hilton Creek. Monitoring which includes field studies along the mainstem river has been continuous since 1995. These studies jointly undertaken by Reclamation and Cachuma Operations and Maintenance Board include instream flow measurements, water temperature recordings, spawning surveys, and population surveys of steelhead/rainbow in response to downstream releases. The fish population is responding favorably to instream flows in Hilton Creek as evidenced by observations of yearly spawning by adult steelhead/rainbow since 2000.

THE FISH MANAGEMENT PLAN

Data from fishery studies, acquired since 1994, was used by the SYRTAC, to develop a long-term management plan or Fish Management Plan (FMP) for fish inhabiting the Santa Ynez River and its tributaries. An objective of the FMP was developed to provide appropriate public trust resource protection for fish species, principally steelhead trout, and competing consumptive uses within the context of a reasonable balance. To achieve this objective, the FMP proposes management actions that provide benefits to fish or fish habitat, and are consistent with water supply availability, existing Bradbury Dam facilities, access to private lands in the Santa Ynez River watershed and competing demands for limited resources.

Goals of the FMP can be found on page 3-2 to 3-3 of the FMP. Some examples of these actions are:

Constructing (Submitted in Phase 1)

- an extension of Hilton Creek would create new fish habitat for spawning and rearing
- Use of conservation easements with willing land owners on El Jaro Creek to enhance riparian habitat would provide stream bank stability and shade
- Modify existing fish passage impediments on streams such as Salsipuedes Creek to provide access to spawning and rearing areas

The FMP also has identified continuing studies of fish passage above Bradbury Dam as an essential management action. Monitoring and scientific investigations are important objectives of the FMP and will provide an essential foundation for evaluating current and future actions that are intended to benefit steelhead/rainbow trout in the main stem river and tributaries.

In conclusion Reclamation will continue to fully implement the BO and undertake management actions described in the FMP in partnership with signatories of the Memorandum of Understanding. In my opinion implementation of the BO and the FMP will provide important benefits to public trust resources such as the steelhead/rainbow trout. More importantly as shown in my testimony the BO and FMP were prepared with the input of NMFS' expertise, and consideration of NMFS' issues that dated from as early as 1994.