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:
2002/01708:RAB

JUL 12 2010

Mr. Jeff Pratt
Director, Public Works Agency
County of Ventura
800 South Victoria Avenue
Ventura, CA 93009

Dear Mr. Pratt:

RE: Proposed Permanent Upstream Storage of Fine Sediments in Matilija Canyon

NOAA's National Marine Fisheries Service (NMFS) reviewed the proposal presented at the Matilija Design Oversight Group meeting of January 14, 2010, to permanently store approximately 2.1 million cubic yards of sediment in the Matilija Canyon within the Matilija Dam Reservoir site. NMFS staff has on previous occasions visited the various potential sediment storage sites, including those upstream and downstream of Matilija Dam, and hereby provides the County with our assessment of this alternative to assist the County in dealing with this challenging aspect of the Matilija Dam Ecosystem Restoration Project.

NMFS previously issued a non-jeopardy biological opinion for the Matilija Dam Ecosystem Restoration Project based on the project description contained in the consensus 4b alternative. The County has proposed modifying the approach to the disposition of the fines sediments identified in the consensus 4b alternative (slurrying and temporary storage downstream of Matilija Dam and the Robles Diversion) to permanently sequester the fine sediments in Matilija Canyon, upstream of the Robles Diversion and the Matilija Dam. This modification is of concern from a procedural standpoint because the subject biological opinion is based on the proposed action that was defined at the time of the formal consultation with the Army Corps of Engineers; a change in project plans may therefore trigger the criteria for reinitiating formal consultation, in accordance with 50 CFR §402.16. As described more fully below, the subject modification is of concern owing to several ecological implications, which have relevance to endangered steelhead (*Oncorhynchus mykiss*)

The County's analysis of the new alternative to permanently sequester fine sediments in the reservoir site in Matilija Canyon indicates that this alternative would affect the same linear distance of the river as the consensus 4b alternative, and that it would lessen, by approximately 35 acres, the total footprint of the project. This analysis appears flawed in two basic respects.

First, the downstream alternative 4b and new alternative upstream sediment disposal areas have significantly different habitat characteristics, making a direct comparison of linear feet or acreage between the two areas inappropriate. The downstream river reach in the vicinity of the Baldwin Road Bridge is characterized by a broad alluvial floodplain with a braided channel which typically carries surface flows only seasonally. The unstable substrate and lack of perennial surface water results in a lack of developed riparian cover. Steelhead use this downstream reach for migration to upstream habitats and emigration to the ocean, though spawning and rearing of this species may occur. The upstream areas in Matilija Canyon are characterized by a narrower flood plain with a more stable channel morphology (due to bed-rock formations and larger boulder size), and contains perennial surface flow (fed by several springs and unnamed tributaries). This reach of Matilija Creek is a prime steelhead spawning and rearing area. Providing volitional steelhead passage to this spawning and rearing area is one of the principal objectives of the Matilija Dam Ecosystem Restoration Project.

Second, the downstream areas in the vicinity of the Baldwin Road Bridge were identified in the consensus 4b alternative as *temporary* sediment storage areas. These areas would be vegetated in the interim with native species. The fine sediments are proposed to be actively managed to accelerate the recovery of the temporary sediment storage areas to natural (pre-project) conditions. The upstream areas in Matilija Canyon would be *permanently* filled, and the fill protected with flood-control armoring to prevent erosion of the sediment and entrainment into Matilija Creek. The following provides more specific comments on particular aspects of the proposed permanent upstream sequestration of fine sediments.

With regard to potential impacts to upstream habitat, approximately 2 million cubic yards of fine sediment would be sequestered in the upstream areas in Matilija Canyon. Additionally, it is acknowledged that the permanent sequestration of fine sediment in the upstream areas will require the flood-control armoring of over 3,500 feet of Matilija Creek. Permanent fill and associated flood-control armoring will reduce the historic floodplain and associated channel complexity and riparian vegetation Permanent fill would also reduce the connectivity between Matilija Creek and several unnamed tributaries within the footprint of the upstream storage areas. Channelization of the perennial stream section in the Matilija Reservoir area will adversely impact steelhead spawning and rearing habitat by reducing the amount and quality of habitat and eliminating the natural recruitment of spawning gravels and riparian vegetation to the active stream corridor. Flood-control activities may potentially interfere with fish passage to spawning and rearing areas further upstream by reducing boundary roughness of the stream channel, which increases stream velocity.

With regard to potential impacts to downstream habitats, a catastrophic failure of the proposed flood-control armoring during a major storm event would result in the sudden entrainment of a significant amount of sediment that could exceed the capacity of the river discharge to move the sediment below the Robles Diversion, thus potentially disabling the Robles fish passage facilities (particularly the fish screens which can be disabled by a build up of silt and debris in the

diversion forebay), as well as adversely affecting spawning and rearing habitats for endangered steelhead in the lower Ventura River and estuary.

The HEP analysis attempted to capture the full benefits of the Matilija Dam Ecosystem Project by taking into account all of the habitat areas potentially affected by the project; this included not only the restored reservoir site and the active river channel, but also the extensive riparian areas along the full length of the Ventura River. The habitat values of the upstream permanent fine sediment sequestration areas would be substantially reduced because of both the placement of approximately 2 million cubic yards of fill, but also because the elevated topography (c. 75 feet) above the natural stream gradient, and related flood-control armoring which would isolate the filled area from the influence of the active channel.

In summary, the upstream *permanent* sequestration of fine sediments is not consistent with the consensus 4b alternative, which identified downstream *temporary* storage of fine sediments, and formed the basis for NMFS biological opinion issued for the Matilija Dam Ecosystem Restoration project.

The proposed Matilija Dam Ecosystem Restoration Project presents an unprecedented opportunity to restore the population of endangered steelhead in the Ventura River watershed, and contribute significantly to the recovery of the entire Endangered Distinct Population Segment of Southern California Steelhead. If you should wish to discuss any of these issues further, please contact Rick Bush at (562-980-3562).

Sincerely,

for Rodney R. McInnis
Regional Administrator

cc: Darrel Buxton, U.S. Army Corps of Engineers
Sheryl Cater, U.S. Bureau of Reclamation
John Bridgewater, U.S. Forest Service
Roger Root, U.S. Fish and Wildlife Service
Ed Pert, California Department of Fish and Game
Mary Larson, California Department of Fish and Game
Steve Bennett, Ventura County Board of Supervisors
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