


# Memorandum

To: Mr. Edward C. Anton, Chief  
Division of Water Rights  
State Water Resources Control Board  
Post Office Box 2000  
Sacramento, California 95812-2000

Date: November 20, 2001

From:  Donald B. Koch, Regional Manager  
Northern California-North Coast Region  
Department of Fish and Game  
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Subject: Complaint Investigation Relating to Application 29449 Doug Cole – Stanshaw Creek,  
Tributary to Klamath River, Siskiyou County

The Department of Fish and Game has reviewed the subject application and attended two site visits with State Water Resources Control Board (Board) staff. The first field investigation was conducted by the Board's application and environmental section on July 26, 2000, and the latest complaint inspection was held on October 17, 2001. On March 17, 2000, we submitted a protest on the application which was accepted by the Board on April 4, 2000. Our protest is based on adverse environmental impacts which could result from reduced flows in Stanshaw Creek. Both the complaint and application refer to an existing unpermitted diversion of water from Stanshaw Creek.

At the time our protest of this application was filed in March 2000, our primary concern was protection of anadromous fish habitat in about a 0.25 mile reach of Stanshaw Creek from the Highway 96 crossing to the stream's confluence with the Klamath River. On April 27, 2001, the California Fish and Game Commission (Commission) accepted a petition to list coho salmon north of San Francisco Bay as an endangered species. Consequently, coho salmon are now considered as a candidate species pursuant to the California Endangered Species Act (CESA). On April 26, 2001, emergency regulations adopted by the Commission pursuant to Fish and Game Code Section 2084 went into effect. These regulations remain in effect during the 12-month candidacy period and authorize the incidental take of coho salmon resulting from diversion of water. The Commission will likely make its final listing decision in early June 2002 and if they decide to list the species, the current Section 2084 incidental-take authorization for water diversions will terminate. After listing, take of coho salmon will be prohibited unless authorized under Fish and Game Code Section 2081(b) or 2080.1. We urge the Board to consider the implications of their actions regarding subject complaint and final decision on water rights application #29449 in light of Fish and Game Code Section 2053 and the potential listing of coho salmon next year.

During the complaint inspection, we were told that the merits of the complaint would be reviewed within 30 days and, therefore, we are submitting these comments and recommendations for the Board's consideration. Formal protest dismissal terms will be submitted to the application unit at a future date.

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Federally Listed coho salmon (*Onchorhynchus kisutch*) are known to exist in Stanshaw Creek. Coho salmon were listed as threatened under the Federal Endangered Species Act effective June 5, 1997, and as a candidate under the California Endangered Species Act on April 27, 2001. On two recent occasions, the Department has collected field information within Stanshaw Creek below the subject diversion in the area near its confluence with the Klamath River. On May 25, 2000, we collected 8 young of the year and 18 yearling steelhead trout in this area of Stanshaw Creek. On July 26, 2000, we sampled and found one juvenile coho salmon in Stanshaw Creek below the culverts which run under Highway 96. We believe the Highway 96 culverts are currently a barrier to upstream migration of fish and have, therefore, focused our concerns and mitigation measures on the 0.25 mile stream reach downstream of these culverts. This stream reach is characterized by deep pools, large woody debris, dense overhanging riparian cover shading the stream and generally cool water temperatures and thus provides good rearing and refuge habitat for juvenile coho salmon and steelhead trout. Coldwater habitats such as those provided by Stanshaw Creek are important refuges for juvenile coho salmon which may need to escape the warmer temperatures and low dissolved oxygen levels occasionally found in the Klamath River during the warm summer and early fall months. However, critical cold water refuge habitats for coho salmon and steelhead in lower Stanshaw Creek need to be accessible to the fish so sufficient water needs to stay in the stream to maintain connectivity to the Klamath River all year.

The Department currently proposes year-round bypass flows of 2.5 cubic feet per second (cfs) to be measured at the culverts below Highway 96 to mitigate potential impacts from the diversion on Stanshaw Creek. Our objective for these flows is to ensure existing instream habitat conditions in Stanshaw Creek for coho salmon and steelhead are maintained, water temperatures remain cold and year-round access to the stream from the Klamath River is guaranteed. To accomplish this objective, we recommend the total stream flow be bypassed whenever it is less than the designated amount. Based on field reviews and best professional judgment, it was determined that 2.5 cfs should maintain connectivity and an adequate channel which allows young salmonids access to Stanshaw Creek from the Klamath River. However, the Department may require additional bypass flows in the future if conditions change such that 2.5 cfs is no longer adequate to allow salmonid passage at the mouth of Stanshaw Creek. Future modification of the barriers or more detailed studies may also indicate a need for higher instream flows.

It is our understanding from discussions with Board staff that water is currently diverted from Stanshaw Creek even when there is not enough flow to run the hydroelectric generators. We believe this procedure results in water being wasted and not being put to beneficial use. This procedure typically occurs during critically dry periods when natural flows are needed to maintain salmonid access from the Klamath River to cooler water, rearing and refuge habitat found in Stanshaw Creek. If the stream flow in Stanshaw Creek is less than the amount needed to run the hydroelectric plant (3 cfs), then water for power generation should not be diverted and the entire natural flow of Stanshaw Creek should be bypassed to maintain the downstream fishery resources.

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During both inspections, various options were discussed which could help satisfy the required downstream flow conditions. We believe two options have merit for the Board and the owner to consider. One option would be returning diverted flows back to Stanshaw Creek after the water is used to generate electricity. Currently, tailwater is discharged to the adjacent drainage of Irvine Creek. Second, improvements to the open ditch system and/or updating the hydroelectric generation system may also allow the applicant to divert less water while still meeting the needs for domestic purposes and electric generation.

If you have any questions or comments regarding this memorandum, please contact Environmental Scientist Jane Vorpapel at (530) 225-2124.

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