



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE

Southwest Region  
777 Sonoma Avenue, Room 325  
Santa Rosa, California 95404

December 14, 2009

Mr. Paul Murphey  
Division of Water Rights  
State Water Resources Control Board  
Post Office Box 2000  
Sacramento, California 95812

Dear Mr. Murphey:

This letter is in regard to NOAA's National Marine Fisheries Service (NMFS) review of the California State Water Resources Control Board Division of Water Rights' (SWRCB) October, 2009, draft Environmental Impact Report (DEIR) for the El Sur Ranch Water Right Application No. 30166. The DEIR analyzes the effects of the SWRCB issuance of a permit for a proposed project to divert water from the Big Sur River for flood irrigation. The project is proposed for existing cattle pastures located west of State Route 1 in coastal Monterey County, California, approximately 1.5 miles south of the Point Sur Lighthouse. The project could exceed past (and unpermitted) water diversion quantities. The issuance of the permit is a discretionary action on the part of the SWRCB and is subject to review under the California Environmental Quality Act (CEQA).

The proposed project site is located on approximately 292 acres within the 7,000 acre El Sur Ranch (the appropriative water right applicant). Approximately 267 acres of the 292 areas are subject to flood irrigation practices. Of the 267 irrigated acres, approximately 25 acres are located within the Big Sur River watershed and are served by the El Sur Ranch's existing riparian water right. The remaining 242 acres of irrigated pasture comprise the area that the appropriative water right is being requested. However, water diverted under the proposed water right would be applied to all 267 acres. For the purposes of the application and analyzed in the DEIR, irrigated acreage would include 25 acres of the adjacent riparian land served under the Ranch's existing riparian right.

Water is diverted to the pastures from underflow from the Big Sur River via two existing wells. The wells, referred to as the Old Well and the New Well, have a maximum collective diversion capacity of 3,567 gallons per minute. Water from the wells is conveyed through a 14-inch pipeline system (with valves placed 28 feet apart) to flood irrigate the pasture for the purpose of providing forage to an average of 400 head of cattle (up to a maximum of 700 head) per annum.

In the past, the El Sur Ranch has been diverting water to flood irrigate pasture land without a water right. Between 1975 and 2004, the Ranch diverted an average of 937



AFA with a maximum diversion of 1,430 acre feet diverted during the drought year of record in 1977. The current water right application seeks to increase the amount of water diverted from the Big Sur River with a maximum direct diversion of 1,615 acre feet per annum (AFA) with a 20-year rolling average not to exceed 1,200 AFA. This water right would legally allow a maximum quantity of water to be diverted beyond the quantity of water historically diverted under extreme drought conditions.

In this letter we focus on four areas not adequately addressed in the DEIR: (1) legal status of South-Central California Coast (S-CCC) Distinct Population Segment (DPS) steelhead (*Oncorhynchus mykiss*) and implications of unauthorized take, (2) ecological context of the Big Sur steelhead population and the importance of lagoon habitats, (3) juvenile passage, and (4) rationale used to establish of baseline conditions.

## 1. Legal Status

NMFS administers the federal Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*), for S-CCC steelhead which are present in Big Sur River. NMFS listed S-CCC steelhead as a species threatened with extinction on August 18, 1997, (62 FR 43937). The species' listing status was reaffirmed by NMFS on June 28, 2005, (70 FR 37160) and it remains listed as a threatened species. The Big Sur River was designated as critical habitat for S-CCC steelhead in September, 2006 (70 FR 52488).

Under the ESA, it is unlawful for any person subject to the jurisdiction of the United States to "take" any species of fish or wildlife listed as endangered within the United States. 16 U.S.C. § 1538(a)(1)(B). The term "take" is defined by the ESA to mean harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such activity. 16 U.S.C. § 1532(19). "Harm" has been defined by NMFS to mean:

... an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding or sheltering. 50 C.F.R. § 222.102.

Under section 4(d) of the ESA, 16 U.S.C. § 1533(d), the Secretary is required to adopt such regulations as he deems necessary and advisable for the conservation of species listed as threatened. Such regulations may include application of the prohibitions contained in section 9(a) of the ESA, 16 U.S.C. § 1538(a), which apply to endangered species. Protective regulations for S-CCC steelhead issued pursuant to section 4(d) of the ESA became effective on September 8, 2000, (65 Federal Register 132 (July 10, 2000)); (50 C.F.R. § 223.102(a)(5)). With certain limited exceptions, these regulations apply the section 9(a) prohibitions, including the "take" prohibition, to S-CCC steelhead. The prohibition against unauthorized "take" of S-CCC steelhead applies equally to persons engaged in activities that are not intended or designed to take species listed under the ESA, but may do so incidentally.



The protective regulations for S-CCC steelhead describe certain activities that are most likely to cause “harm” resulting in a violation of the ESA. These activities, which may pertain to the diversion of water from the Big Sur River, include, in part:

“Removing water or otherwise altering streamflow when it significantly impairs spawning, migration, feeding, or other essential behavioral patterns . . .”

Even though the SWRCB may issue a diversion permit to the El Sur Ranch for this proposed action and has evaluated the impacts pursuant to the CEQA with proposed mitigation measures, NMFS believes this project may take listed S-CCC steelhead. Authorization for take of federally listed species cannot be achieved through CEQA mitigation measures.

## **Issue 2: Ecological Context**

The S-CCC steelhead DPS includes all naturally spawned steelhead populations in streams from the Pajaro River watershed (inclusive) to, but not including, the Santa Maria River, (62 FR 43937) in northern Santa Barbara County, California. During the past 30 years steelhead populations within the S-CCC DPS have declined dramatically from estimated annual runs totaling 25,000 adults to less than 500 returning adult fish (Busby *et al.* 1996). Of the 36 watersheds in the S-CCC DPS historically supporting steelhead most continue to support runs, although run sizes are significantly reduced, or no longer exist, in many sub-watersheds. This is illustrated by the fact that the four largest watersheds (Pajaro, Salinas, Nacimiento/Arroyo Seco, and Carmel Rivers) have experienced declines in run sizes of 90 percent or more and steelhead are extirpated from many of their subwatersheds. Present population trends within individual watersheds continuing to support this species is generally unknown, but may vary widely between watersheds. One of the best remaining streams for S-CCC steelhead is the Big Sur River which is considered to maintain important refugia habitat important to the long term persistence of this species. Ensuring all components of this species habitat, including the lagoon, in the Big Sur River are at a properly functioning condition is essential to the long-term persistence of steelhead in the Big Sur biogeographic region.

Recent studies on California’s Central Coast highlight the role that lagoons and estuaries serve in steelhead growth and survival. Smith (1990) and Bond (2006) documented high rates of juvenile growth in the estuary/lagoon systems in coastal San Mateo and Santa Cruz County streams. In Scott Creek, Bond (2006) found that estuary-reared steelhead show a large survival advantage over stream-reared fish and comprised 85 percent of the returning adult population despite being between 8 and 48 percent of the juvenile population. Due to the importance of this habitat we are concerned that the DEIR does not provide sufficient information regarding the effects of increased water extraction on the lagoons’ steelhead habitat. The lagoon provides essential habitat for juvenile steelhead<sup>1</sup> and by reducing freshwater inflow into the lagoon, there is a direct decrease in lagoon habitat quality and function, such as reduced thermal mass leading to increased

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<sup>1</sup> Typically juvenile fish migrate into the lagoon in June and July (Shapovalov and Taft, 1954).



water temperatures, greater diurnal sways in dissolved oxygen (DO), and greater interaction with the anoxic environment. These changes result in greater stress to rearing steelhead and reduced rearing success. The DEIR states that "...the proposed project would not substantially alter lagoon conditions". However, based on evidence of low DO presented in the DEIR we do not concur with the DEIR's conclusions. A further analysis of the interaction of lagoons and the impacts of reduced freshwater inflow could show a significant impact. The relationship between the productivity of freshwater lagoons and steelhead viability is evolving. Reduction of freshwater inputs into lagoons has an exponential adverse effect to the quality of habitat conditions for fish. A condition known as meroximism, a seasonal inverse of temperature stratification that occurs in lagoons during the late-summer due to poor water circulation and solar radiation, would reduce habitat availability within the lagoon itself for juvenile S-CCC DPS steelhead. The combined effects of the proposed project, impeding passage of juveniles from July to October and decreased water quality in the form of DO, juvenile steelhead would be exposed to greater stresses from the proposed project than historic conditions. We do not believe there are any minimization measures that could be employed to offset the reduction in the productive value of the lagoon to threatened S-CCC steelhead, other than maintaining greater inflow during summer months.

### **Issue 3: Passage**

Based on the information provided in the DEIR, NMFS recommends the SWRCB further evaluate the impacts of the proposed action to juvenile steelhead passage. Evidence in the DEIR suggests the reduction in surface and subterranean flows may have severe impacts to S-CCC steelhead. The ability for fish species to migrate, forage, and seek shelter are vital elements to the survival of the species. The significant impacts to reduced flows, inhibiting the migration timing and impeding passage at certain critical flows, and impairments to water quality will limit the productivity and carrying capacity of the species. For instance, passage criteria for juvenile steelhead between June and October were not met for critically dry years. In normal years, the proposed project would reduce daily mean surface flows by as much as 5 to 10 percent during low flow periods. It is uncertain how the baseline water withdrawals have impacted the species. Maintenance of instream flows is particularly critical for threatened steelhead. An increase in the amount of diversion by as much as 51 percent over the current baseline, could result in the passage impediments for juvenile fish in some areas even in normal years. Additionally, the reduction in water quantity will have a direct correlation to water quality; which already exceeds criteria. By limiting the opportunities for juvenile fish to migrate through the system, the impacts are more significant as fish become stranded in unsuitable habitat conditions. NMFS does not believe the proposed mitigation measures in the DEIR are suitable to avoid "take" or "harm" to steelhead.

### **Issue 4: Baseline**

In CEQA impact analysis, potential impacts are assessed against environmental baseline conditions. An EIR must include a description of the physical environmental conditions in the vicinity of the project as they exist at the time the Notice of Preparation was



published (June 2, 2006). The SWRCB has interpreted the CEQA baseline for the DEIR as the environmental setting as June 2, 2006, against which impacts of the proposed action will be evaluated even though water was illegally diverted from the analysis area at this time. The SWRCB asserted that as part of identifying baseline conditions, they had to consider the Ranch's historical water diversions (both legal and illegal), which are part of the existing environment. The SWRCB provides no further information regarding this assumption and leaves the reader to speculate as to their rationale for including a long history of unauthorized diversion in the baseline<sup>2</sup>. NMFS strongly disagrees with the SWRCB's interpretation of baseline for this project, particularly in light that a number of mitigation measures specifically developed to try and address impacts to steelhead are predicated on "baseline" instream flow conditions. NMFS reminds the SWRCB that the entire purpose of producing an EIR is to fully disclose – not obfuscate – potentially significant environmental effects of a proposed project in order to clearly evaluate the impacts of a proposed action.

NMFS recommends the SWRCB to effectively evaluate the impacts of this project to rearing steelhead in the Big Sur River Lagoon (such as conducting a Public Trust Analysis). The analysis should evaluate impacts to steelhead rearing conditions and anticipated population response in the Big Sur Lagoon through two simple scenarios: project approval and project denial. Unless this type of evaluation is conducted, the full impacts of the proposed action cannot be determined.

## **Conclusions**

Based on information provided in the DEIR, NMFS concludes removing 1,615 AFA of water from the lower Big Sur River will likely result in adverse impacts to steelhead rearing conditions in the Big Sur River lagoon and juvenile passage in the lower river in most water years. These impacts will reduce steelhead abundance and impair the survival advantage afforded to steelhead juveniles that rear in the Big Sur lagoon. Periods of high water diversion would likely occur in dry water years with subsequent significant impacts to steelhead rearing habitat in the lagoon. The DEIR fails to adequately analyze these impacts due to its reliance of a faulty interpretation of baseline conditions. Based on the project description provided, and NMFS' administrative record, it is likely the SWRCB's issuance of a permit for the proposed action will adversely affect S-CCC steelhead. If the proposed project will adversely affect S-CCC steelhead, the El Sur Ranch will need ESA take exemption or risk being in violation of ESA section 4(d). The mechanism to obtain an exemption for an otherwise legal activity would be through either ESA section 7 or section 10(a)(1)(B) (development of a habitat conservation plan (HCP)).

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<sup>2</sup> It is important to note that on August 31, 1990, during this "baseline" period, the Department of Parks and Recreation (DPR) filed a complaint with the SWRCB alleging the excessive use of water by the El Sur Ranch. The DPR claimed that a 3,000 foot section of the lower portion of the Big Sur River had dewatered and that the lagoon had reached critically low levels as a result of the El Sur Ranch operation of the two wells. Impacts from this "baseline" dewatering to rearing juvenile steelhead are obvious and do not require further elaboration.

Thank you for the opportunity to comment on the El Sur Ranch DEIR. If you have any questions regarding this letter please contact Mr. Devin Best at (707) 578-8553 or via email at [devin.best@noaa.gov](mailto:devin.best@noaa.gov) or Mr. David Hines at (707) 575-6098 or via email at [david.hines@noaa.gov](mailto:david.hines@noaa.gov).

Sincerely,



Dick Butler, Supervisor  
Protected Resource Division  
Santa Rosa Area Office

cc: David Hines - NMFS  
Roy Torres – NOAA OLE  
Patricia Anderson – CDFG

#### **Sources Cited**

Bond, M. 2006. Importance of Estuarine Rearing to Central California Steelhead (*Oncorhynchus mykiss*) Growth and Marine Survival. MA. UC Santa Cruz. 59 p.

Cannata, S. 1998. Observations of Salmonid Use, Water Quality, and Channel Morphology of the Navarro River Estuary/Lagoon. Humboldt State University Foundation. February.

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Smith, J. 1990. The Effects of Sandbar Formation and Inflows on Aquatic Habitat and Fish Utilization in Pescadero, San Gregorio, Waddell, and Pomponio Creek Estuary/Lagoon Systems, 1985-1990. Rep. 84-04-324. State Univ. Calif. San Jose and Calif. Dep. Parks and Rec. 21 December.