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December 13, 2009

Mr. Paul Murphey
Division of Water Rights
State Water Resources Control Board
Post Office Box 2000
Sacramento, CA 95812
Via email: wrhearing@waterboards.ca.gov; PMurphey@waterboards.ca.gov

RE: El Sur Ranch. Water Right Application No. 30166. DENY PROPOSED PROJECT

Dear Mr. Murphey, Water Board, and Staff:

Thank you for the opportunity to comment on the El Sur Ranch Water Right Application 30166. I offer these comments on behalf of Monterey Coastkeeper, The Otter Project, and our 3000 members. Monterey Coastkeeper is a program of The Otter Project. Monterey Coastkeeper is affiliated with the California Coastkeeper Alliance and the international Waterkeeper Alliance.

We urge the Board to reject the Proposed Project and instead conditionally approve the Environmentally Superior Alternative as identified in the Draft Environmental Impact Report (DEIR): No change in Existing Practices/Historical Diversions Alternative (Alternative 2).

Environmental Baseline

We believe the environmental baseline for this project is as stated in the No Project Alternative, Alternative 1. We do not understand the logic stated throughout the document that the historical use is a more appropriate baseline and that the proposed project is only a slight increase over the historical use baseline. Studies have clearly shown that both the New and Old Wells draw water from the Big Sur River. Studies have shown that pumping operations, in fact, have drawn down the surface water levels of the river to a condition that restricts fish passage. Finally, studies have shown that pumping contributes to extremely low – in fact lethal to steelhead – levels of dissolved oxygen. See the following pages in the DEIR:

4.2-64 The average flow rate was higher at the furthest downstream station (VT2) compared to the station within the section of the Big Sur River adjacent to the area of diversions (VT3), except when both pumps were pumping. The higher flow rate at the downstream flow station and lack of ambient precipitation or other direct contributions to stream flow indicates that this section of the river is typically a gaining reach with groundwater inflow contributing to stream flow. However, when both pumps were in operation, flow at VT2 was 0.4 cfs lower than flow at VT3 (Figure 3-12 SGI 2008). This suggests that the diversion of up to 5.02 cfs may cause or contribute to the section of the river between VT3 and VT2 to lose surface water to groundwater and thus transition from a gaining reach into a losing reach.

4.2-65 During the Critical Dry irrigation season, ambient flow within Zones 4 through 2 during September was as low as 2.3 cfs. Baseline pumping would reduce this flow rate to about 1.84 cfs (2.60 cfs average September diversion rate; see Appendix G, El Sur Ranch Monthly Pumping (cfs) in this DEIR). The proposed project would reduce this flow rate to about 1.82 cfs during average July through October diversion conditions and 1.68 cfs at the maximum monthly July through

October diversion rate. Consequently, there would still be flow within Zones 4 through 2, but flow would be reduced by about 0.48 to 0.62 cfs.

4.2-66 A reduction in flow rate within Zones 4 through 2 of the Big Sur River caused by increased diversions would be critical during extreme low flow conditions. The sustained maximum diversion rate of 5.34 cfs could increase flow losses by an average of 1.28 cfs, while the average irrigation season diversion rate could be up to 3.09 cfs, with average flow losses of 0.74 cfs.

4.2-81 The incidences of no-flow conditions that currently occur in the river, however, may increase slightly as would the incidence of less-than-1 cfs. Although these anticipated increases would be very small, as noted above, the river supports critical habitat for endangered fish species and, therefore, this project's contribution to the cumulative impact is potentially considerable and, therefore, cumulatively potentially significant.

4.3-43 These studies indicate that pumping reduces groundwater inflow to the river by at most 0.30 cfs per cfs pumped. So at the increase in maximum diversion rate attributable to the project of about 1.4 cfs per day (Section 4.1 of this DEIR), streamflow would be reduced by 0.4 cfs. Further, the 2007 study indicates that when pumping is occurring during periods of low flows, stagnant conditions are created in the zone of influence where DO [dissolved oxygen] levels were extremely low (SGI 2008; page 3-16)... Pumping contributes to the decline in flow and thereby exacerbates reductions in DO in the lower Big Sur River by facilitating formation of stagnant water.

5-6 The impact analysis presented in Section 4.3 found that pumping-generated decreases in water depths would impair the movement of these fish in the study area. In the spatial context of the watershed, the study area is the link to the ocean from upstream rearing habitats. If juvenile steelhead are impaired or unable to reach the lagoon or the ocean, large segments of the population could be at risk.

Given the considerable evidence that pumping at historic levels is impacting hydrology, water quality and the passage of ESA threatened steelhead, it seems entirely appropriate for the Board to seriously consider the No Project Alternative. Or, given the repeated study and volume of evidence, it seems the Board has every right and obligation to place conditions on the 'business as usual' historic practice.

Waste

The California Constitution Article X, Section 2 states in part: "The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water." This section of the California Constitution restates riparian rights but concludes that the use must be reasonable. Only approximately 25 acres of the project area are entitled to riparian use.

That water must not be wasted is stated in the DEIR at page:

2-20. The law also requires that this water be put to reasonable use and that waste or unreasonable use of water be prevented (i.e., the amount required to supplement the water

naturally provided by precipitation and other climatic factors should reasonably match the requirements of that use so that the water is not wasted).

The proposed project is the result of the applicant stating that they need additional water. The DEIR states:

2-21 According to the applicant, in many years the Ranch applied less water for irrigation than was required for optimal crop production. Ranch foremen have described the historic levels of irrigation as being generally adequate for irrigation of the pasture for ordinary grazing purposes. In a few instances, the annual diversions exceeded crop irrigation diversion requirements; such occurrences have been rare, although it can be reasonably expected that such conditions could occur again in the future.

No data or evidence appears to have been presented supporting the need for additional water. It appears the applicant wants more water, but the Ranch foremen think they are doing alright with the water they have, and at times they even overwater.

The DEIR itself appears to question the need for additional water.

4.2-70 However, no measurements have been made to identify specific conditions on the POU and verify the accuracy of these calculations; calculations are based on average values for the types of soils within the POU and not any actual measurements of infiltration, uptake, and evapotranspiration. Consequently, the use of additional irrigation water that calculations indicate could be effectively used may not, in reality, be effectively used.

We believe there is no strong claim for additional water.

The DEIR is at times contradictory stating that irrigation efficiency is around 65% and at other times around 85%. We have relied upon the 65% efficiency estimate provided by the applicant. The DEIR states that the applicant provided new information including the information in the following table:

Criteria	Optimal	El Sur Ranch
Irrigation method	Based on soils, crops, slopes, economic considerations.	Limited to border surface irrigation to help maintain natural view of the coastline, regulatory prohibitions on natural landform alteration, grazing requirements, and economics.
Slope	Based on soil border length, soils, crops, and water supply.	Limited to existing slope due to soil profile, regulatory prohibitions on natural landform alteration, grazing requirements, and need to maintain natural view of coastline.
Border flow rates	Variable with the ability to apply water at optimal rates (i.e., generally order large flow rates for short durations of 1-2 days)	Limited to flow from two existing wells, and spring tide constraints on the Old Well that can limit pumping.
Border irrigation set times	Based on soil border length, soils, crops, and water supply.	Limited based on available ranch labor.
Labor	Full-time irrigator during irrigation that occurs over a few days at timely scheduled irrigation intervals.	Limited to periodic checking and two set changes per day, based on available ranch labor and herd size conditions.
Irrigation scheduling	Irrigation scheduling based on crop needs.	Limited based on water supply that limits the irrigation interval.
Tail water recovery	Installed to capture and use tail water for irrigation	May be limited due to regulatory, environmental and cost constraints on expanded tail water recovery.
Irrigation efficiency	75 to 85 percent	60 to 70 percent (65 percent typical)
Source: El Sur Ranch Water Right Application No. 30166, revised October 17, 2006.		

El Sur Ranch demonstrates in their own table that they are using the water with less than optimal efficiency. Considerations such as labor and border irrigation set times are at the discretion of the Ranch and should not be accepted as true limitations. Further, limitations such as limited flow rates and irrigation scheduling are stated as caused by the limited flow from the existing wells; we fail to see how these limitations are relieved by allowing additional pumping (additional flow). We believe the applicant has not demonstrated a need for additional water and may in fact be wasting the public resource they are taking. More than enough water to satisfy the applicants stated needs can be obtained through more efficient use of the water they are historically taking.

Regulatory Setting Not Completely Considered

The Marine Life Protection Act was passed by the legislature and signed by the Governor in 1999 and requires California to reevaluate all existing marine protected areas (MPAs) and potentially design new MPAs that together function as a statewide network. In April 2007 The California Fish and Game Commission created the Point Sur State Marine Reserve.

The El Sur Ranch discharges directly into the Point Sur State Marine Reserve.

California Fish and Game Code Section 1, Chapter 10.5, 2852(d) states: "Marine life reserve," for the purposes of this chapter, means a marine protected area in which all extractive activities, including the taking of marine species, and, at the discretion of the commission and within the authority of the commission, other activities that upset the natural ecological functions of the area, are prohibited. While, to the extent feasible, the area shall be open to the public for managed enjoyment and study, the area shall be maintained to the extent practicable in an undisturbed and **unpolluted state** [emphasis added].

Because California's network of marine protected areas is so new, regulators have yet to interpret exactly what "shall be maintained to the extent practicable in an undisturbed and unpolluted state" really means. We believe that new or expanded discharge should not be permitted.

The DEIR states:

4.2-73 [T]he proposed project could increase excess irrigation runoff rates. Irrigation runoff could carry pollutants such as nutrients from fertilizers and animal waste, and pathogens from animal waste to the tailwater pond, Swiss Canyon Creek, or the Pacific Ocean. The El Sur Ranch typically fertilizes and aerates the pastures on an annual basis. This potential impact is potential degradation of surface waters such as the Pacific Ocean.

Reject the Proposed Project

The proposed project increases both take of public water resources and discharge of polluted water beyond acceptable levels. We believe the proposed project should be rejected.

Although the hydrology and biological resources of the Big Sur lagoon and lower reaches have been studied, each investigation has experienced confounding factors making data interpretation difficult. Further, the DEIR relies on 1977 as the example of critically dry conditions. 1977 was preceded by a year of unusually wet conditions and it is possible that groundwater was in reserve. Given that historic practices have been shown to have impacts we do not believe the proposed project impacts can be mitigated to less than significant levels. To restate from the DEIR what has already been presented:

"Further, the 2007 study indicates that when pumping is occurring during periods of low flows, stagnant conditions are created in the zone of influence where DO [dissolved oxygen] levels were extremely low (SGI 2008; page 3-16).... Pumping contributes to the decline in flow and thereby exacerbates reductions in DO in the lower Big Sur River by facilitating formation of stagnant water."

“The impact analysis presented in Section 4.3 found that pumping-generated decreases in water depths would impair the movement of these fish in the study area. In the spatial context of the watershed, the study area is the link to the ocean from upstream rearing habitats. If juvenile steelhead are impaired or unable to reach the lagoon or the ocean, large segments of the population could be at risk.”

According to Table A, in the driest summer months, even during critically dry years, the applicant apparently would be allowed to pump at high levels.

TABLE A		
EXTREME CRITICAL DRY AND CRITICAL DRY FLOW RATE LIMITATIONS ON PROJECT DIVERSIONS		
Month	USGS Limiting Flow Rate^a cfs (flow rate percentile)^f	Baseline (Allowable) Diversion Rate^b cfs
January	18 (10 th)	0.01
February	23 (10 th)	0.00
March	31 (10 th)	0.00
April	26 (10 th)	0.42
May	22 (20 th)	1.69
June	11 (10 th)	2.89
July	10 (20 th)	2.48
August	8.4 (20 th)	2.32
September	7.7 (20 th)	2.60
October	7.9 (20 th)	1.47
November	9.8 (10 th)	0.20
December	17 (20 th)	0.05

Notes:
a. When flow rates at the USGS gage drop below this value, Project diversions shall not exceed Baseline (Allowable) Diversion Rate
b. The 20-year historic Baseline average diversion rate is the allowable diversion rate when flow at the USGS gage drops below the USGS Limiting Flow Rate
c. These numbers represent the USGS daily flow rate at the with the corresponding 20-year historic flow rate percentile in parenthesis. For example, in January, 18 cfs at the USGS gage station corresponds to the 10th percentile flow rate.
Source: PBS&J 2009.

As stated in the DEIR, “Section 10002 requires that the Director of Fish and Game prepare proposed streamflow requirements, in terms of cfs, for each stream or watercourse identified pursuant to Section 10001. The Director of Fish and Game has not yet provided streamflow requirements for the lower Big Sur River. However, in accordance with Public Resources Code, the Director of Fish and Game would review the proposed project water right application and, if necessary, impose stream flow requirements (DEIR 4.2-38).” As stated, the Director of Fish and Game has yet to provide streamflow requirements. However, such a study for the Big Sur River was funded by the California Ocean Protection Council and undertaken by DFG in 2008. The Director could provide an instream flow requirement in 2010. The applicant should be required to stop irrigating if flows drop below the requirement.

At 4.2-66 the DEIR states: “Because no minimum flow has been established, a flow rate of at least 1 cfs was used to estimate potential proposed project effects on maintaining minimum flows.” We could find no justification for the 1 cfs number and it seems arbitrary especially in light of the fact that the proposed project can reduce flows by as much as 1.28 cfs .

4.2-66 A reduction in flow rate within Zones 4 through 2 of the Big Sur River caused by increased diversions would be critical during extreme low flow conditions. The sustained maximum diversion rate of 5.34 cfs could increase flow losses by an average of 1.28 cfs, while the average

irrigation season diversion rate could be up to [a sustained rate of] 3.09 cfs, with average flow losses of 0.74 cfs.”

4.2-81 The incidences of no-flow conditions that currently occur in the river, however, may increase slightly as would the incidence of less-than-1 cfs. Although these anticipated increases would be very small, as noted above, the river supports critical habitat for endangered fish species and, therefore, this project’s contribution to the cumulative impact is potentially considerable and, therefore, cumulatively potentially significant.

According to Table A the proposed mitigation reduces diversion to a sustained rate of between 2.32 and 2.89 cfs during the summer months during critically dry years. These diversions would leave little more than one-quarter of one cfs in the lower reaches. We find it difficult to understand how these reduced flows could be less than significant.

We also note that the DEIR consistently considers impacts at a sustained diversion rate of 5.34 cfs but instantaneous rates of diversion of 5.84 and 6.0 cfs are actually permitted. No analysis is offered of the responsiveness of the flow to these peak diversions.

Conditionally Approve Alternative 2: No Change in Existing Practices/Historical Diversions Alternative (Alternative 2).

As shown in the DEIR, the existing practices can have serious hydrological, water quality and biological impacts. The Monterey Coastkeeper believes the Board would be justified in considering the “no project” alternative. However, given the historic nature of the property and given that the Ranch has deeded property to the State Park system, Monterey Coastkeeper “can live with” conditional approval of Alternative 2, the No Change in Existing Practices/Historical Diversions Alternative.

Conditions

- Monterey Coastkeeper believes that all conditions and mitigations required of the proposed project should apply to the existing use.
- The DFG should be encouraged to expedite the determination of a streamflow requirement for the Big Sur River. Permit conditions should be amended as soon as the required flow is determined.

Thank you for this opportunity to comment on the El Sur Ranch water rights application.

Sincerely,



Steve Shimek
Monterey Coastkeeper