

Before the State Water Resources Control Board

Hearing Dates: June 16 and 17, 2011

In the Matter of State Board's
Consideration to issue a Water Rights
Permit for Application No. 30166

Policy Statement of the California
Department of Fish and Game

The Department of Fish and Game (Department), after reviewing the applicant's Project description provided in Water Right Application No. 30166, and disclosed in the Draft Environmental Impact Report (DEIR) prepared by the State Water Resources Control Board (State Board)-Division of Water Rights, has determined that the proposed Project will not adequately protect public trust resources. However, by incorporating into the water right permit specific conditions to ensure adequate flow in the river and adoption of diversion rates based on standard measures of reasonable and beneficial use of the water the El Sur Ranch can divert from their wells while at the same time protecting public trust resources. Therefore, the Department recommends the State Board consider the issues addressed in this policy statement and include its recommended terms and conditions into the water rights permit.

Background:

Mr. James J. Hill, III (applicant), owner of El Sur Ranch in Monterey County, applied for a permit to divert water from the Big Sur River. The applicant is seeking to divert water via two wells (Old well and New well) pumping from the subterranean stream of the Big Sur River.¹ The subterranean stream is connected and supports surface flow in the river. Wells pumping from the subterranean stream of the Big Sur River are governed by the same rules that apply to surface streams. Water is pumped to 248 acres of irrigated pasture for cattle grazing. According to the Ranch both pumps running simultaneously are capable of pumping at least 5.84 cubic feet per second (cfs). However, the DEIR states the pumping rate is 7.9 cfs combined; two Statements of Diversion filed by the applicant state 4 cfs for each well; the 2006 Application indicates the Old well pumps 4.5 cfs, and the SGI reports show the maximum New well diversion rate at 3.57 cfs on June 5, 2004.

Introduction:

It is intended that issues of primary importance (i.e., instream flow requirements for protection of public trust resources, hydrologic information which demonstrates that the wells are pumping from a subterranean stream, fluvial geomorphological controls on stream processes, among other issues) will be presented by the Department to the Board through the course of evidentiary testimony. This policy statement will address the following: Water Availability Analysis; Big Sur River's Biological Importance/Instream Flow Requirements; Establishment of a Reasonable California Environmental Quality Act (CEQA) Baseline and Identification of Feasible Alternatives; Reasonableness of Water Diversion and Use/Diversion Limitations; Runoff, Erosion and Sedimentation Management Requirements; Monitoring and Reporting Requirements; Restriction of All El Sur Ranch Diversions to the Permitted Amount; Streambed Alteration Agreement Requirement; and the Department's Statewide Policy on Steelhead. Each issue will be addressed with a brief discussion, followed by major points of concern, and then recommended State Board actions to adequately address those concerns.

¹ See City of Los Angeles vs. Pomeroy for case history of subterranean stream

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Water Availability Analysis

The information used to develop the Water Availability Analysis (WAA) and the Cumulative Flow Impairment Index (CFII) provided in the Draft and Final Environmental Impact Report (EIR) failed to account for all upstream diverters and did not include all reported diversions of the El Sur Ranch. Reports of Diversion filed for the El Sur Ranch include those that appear to be supplemental but are identified as "Initial Reports" and others that are conflicting because they identify the place of use as riparian lands varying in size between 25 acres and 290 acres. Additionally, it would appear that the State Board has assigned multiple numbers to the same points of riparian diversion, in effect "double counting" reports.

The Department recommends that the State Board:

- ❖ Examine all Reports of Diversion on file in the Big Sur River watershed, including those of the applicant, to determine whether any reports were filed with inaccurate information (including riparian acreage, and the appropriate use of initial statements as well as supplemental statements).
- ❖ Determine whether the claimed and appropriated water diversions are reasonable and beneficial uses, and whether the State Board has "double counted" any of the reports of use and diversion which have been filed.
- ❖ Re-do the WAA to include all diverters on the Big Sur River, to determine if in fact there is sufficient water available with regard to the current application.

Biological Importance/Instream Flows

The Big Sur River provides valuable habitat for several special-status species, and is designated by the Federal Endangered Species Act (ESA) as critical habitat for the federally threatened, and State Species of Special Concern, steelhead (*Oncorhynchus mykiss*). The river, its lagoon, and adjacent aquatic features also provide habitat for designated sensitive species such as western pond turtle (*Actinemys marmorata*), and the federally threatened/State Species of Special Concern, California red-legged frog (*Rana draytonii*). This species of frog has been extirpated (locally extinct) from 70 percent of its former range, and is now found primarily in coastal drainages of central California. The South-Central California population of steelhead has similarly declined throughout its range, resulting in an increased conservation importance for those areas where it still persists. The Department is concerned that the proposed Project may result in direct and cumulative adverse impacts to these valuable resources. Specifically, the Department's concerns regarding the Big Sur River's biological importance are:

- Steelhead and red-legged frog are listed by the ESA as threatened, and the Big Sur River is designated critical habitat for steelhead.
- The Big Sur River was identified as a top priority stream under Public Resources Code 10001 for instream flow studies to designate necessary flows for all life stages of steelhead.

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- Sufficient quantities of water flowing through the channel and into the lagoon are important for providing passage for spawning adult steelhead, and juvenile rearing habitat during the drier late summer and fall periods.
- Adequate flow is important for maintaining water quality in the lower reach pools and the lagoon.
- California red-legged frog may use the river; and the lagoon and tailwater pond for breeding, and are known to occur in Swiss Canyon, which bisects the irrigated pastureland.
- Current groundwater and biological conditions in the river are influenced by the 60+ (since 1949) year diversion history of El Sur ranch.

Physical Habitat Simulations Studies:

The Big Sur River was identified as one of the Department's twenty-two priority streams in 2008. Pursuant to the Public Resources Code (PRC) sections 10000 to 10005, the Department is mandated to identify streamflow requirements for each priority stream. Available data were not sufficient to fulfill the Department's PRC obligations for the Big Sur River and as such the Department began an instream flow study in 2009. The study is underway and scheduled to be complete with a final project report in August 2012. The Department will then seek consultation pursuant to the PRC on the streamflow requirements, and after such, will transmit the streamflow requirements to the State Water Resources Control Board (SWRCB) for consideration as set forth in Section 1257.5 of the Water Code. It is anticipated the streamflow requirements for the Big Sur River will be transmitted to State Board by February 2013.

The current study includes the following components: habitat mapping and sampling sites spanning the entire length of steelhead anadromy; a lagoon assessment; site-specific habitat suitability criteria development for rearing juvenile steelhead; critical riffle passage assessments; and 1-Dimensional and 2-Dimensional physical habitat simulation hydraulic models. A United States Geological Survey (USGS) streamflow gauge was also installed in the lower reach of river and will be reporting streamflow data used in the current study. The design and methodology of the flow study are consistent with the Department's Guidelines for Instream Flow Assessment as well as consistent with the Department's Instream Flow Incremental Methodology (IFIM) policy. The IFIM is a structured decision making process.

Importance of the Big Sur River and Lagoon Habitat for Steelhead:

The importance of lagoons to steelhead rearing has been well documented². Lagoons provide essential elements (food, cover, backwater habitat, water quality, water depth) for survival of the species. Recent studies on California's coastal lagoons show high survival rates for steelhead that utilize the lagoon for rearing because of higher growth rates resulting in larger steelhead going to the ocean³.

² Shapovalov and Taft 1954, Johnson et. al.1986, Smith 1990, Zedonis 1992, McMahon and Holtby 1992, Busby and Barnhart 1995, Bond2006, Hayes et al. 2008

³ Smith 1990, Cannata (1998), Bond (2006), Hanson (2008), Hayes et. al. 2008, and Atkinson 2010

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The Big Sur River, including its lagoon, has an important distinction as the largest watershed in the central coast region that is considered to be in good to excellent condition. The watershed offers a high percentage of quality steelhead habitat when compared to other watersheds in the central coast region. During seasons of low rainfall or drought, this may be the only watershed available to salmonids forced to stray by poor habitat conditions in watersheds elsewhere along the central coast. The size and location of the watershed, the ease of access for salmonids, and the amount of water available, makes the Big Sur River arguably the most important watershed for the South-Central California Coast steelhead population.

The Department recommends the State Board include the following terms and conditions in any water right permit issued to El Sur Ranch:

- ❖ Require a bypass flow permit condition for fish and wildlife, and public trust protection, that specifies the dates and amounts of flow which the diversions must maintain as a minimum bypass flow. Standard language commonly utilized by the State Board would be appropriate to this stream, such as: “No diversion shall take place under this permit if the flow in the Big Sur River is at or below x cfs (determined by Department’s instream flow studies), as measured at the USGS gauge (or other acceptable gauge).”
- ❖ Require flow monitoring to ensure El Sur Ranch bypasses enough flow to ensure adequate adult passage and juvenile rearing for steelhead, and maintain water quality in the zone of influence of the El Sur Ranch wells and downstream in the lagoon.
- ❖ The minimum flows that must bypass El Sur Ranch point of diversion shall be calculated based on summation of the seasonal requirements for protection of fisheries and other public trust resources, plus the maximum recorded losses in flow between the El Sur Ranch point of diversion and the gauge used to monitor river flows, plus the maximum permitted instantaneous diversion rate.
- ❖ Include a reopener clause to incorporate the findings of the Department’s physical habitat simulation (PHABSIM) study, as soon as these are available.
- ❖ Include interim instream flow requirements recommended by the Department’s wetted perimeter analysis⁴, until the PHABSIM study findings are available.
- ❖ Require water quality monitoring of the lower river and lagoon to ensure the quantity of water bypassed provides proper water quality conditions⁵.
 - Incorporate the National Marine Fisheries Service (NMFS) Lagoon Monitoring Methodology by reference into the water right permit.
- ❖ Require the applicant to operate the irrigation tail water pond consistent with pond management measures obtained by consulting and reaching agreement with the United States Fish and Wildlife Service (FWS); existing methods of pond operation

⁴ Wetted Perimeter Analysis of the Big Sur River, by Rob Titus – to be submitted in support of evidentiary testimony.

⁵ See Attached “Lagoon Monitoring Methodology” recommended for the Big Sur River lagoon, by the National Marine Fisheries Service, National Oceanic and Atmospheric Administration.

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may be detrimental to the threatened red-legged frog, which are likely to use the pond as breeding habitat.

CEQA Baseline

The Department has previously commented to the State Board regarding the CEQA baseline chosen to evaluate environmental impacts. We believe the State Board should not use a baseline which was based on unpermitted diversions; based on the requested amount; and/or based solely on the (unsubstantiated) quantities reported in the applicant's statement(s) of diversion and use. While in some cases it may be acceptable to use the current environmental setting at the time of a lead agency's determination of environmental effects, in this case the water being diverted without permits or licenses is excessive; and is being pumped from the Big Sur River, designated critical habitat for steelhead, which is listed as threatened under the federal ESA.

The No Project/No Permit Alternative in the DEIR describes conditions which we believe are appropriate to utilize for determination of the correct CEQA baseline. Choosing a pre-project/no permit CEQA baseline would be reasonable due to the ability of the State Board to issue a Cease and Desist Order to limit all unpermitted diversions, which would reduce El Sur Ranch's diversions to that which they are legally entitled per their riparian right(s). In fact, in a memo to file dated April 12, 1992, Mr. Louis Moeller of the Complaints Unit of the (then) Division of Water Rights recommended that "Mr. Hill be directed to cease diversions from the underflow of the Big Sur River to serve nonriparian land." Abrogation of that responsibility by the State Board is not consistent with the presence of multiple federally-listed species in the project vicinity, and the Big Sur River being designated critical habitat for steelhead under the federal ESA. Choosing a pre-Project/no permit baseline would also establish an appropriate environmental setting for determining potential impacts to public trust resources, which impacts were not analyzed in the DEIR.

Choice of a baseline utilizing unpermitted diversions, in the current environmental setting, in this specific location, and based on excessive quantities reported as diverted would do the following:

- Preclude the State Board from accurately evaluating the effects of the proposed Project;
- Limit both the State Board's and the Department's ability to adequately protect State public trust resources, including federally threatened species and critical habitat;
- Undermine the policies and intent of the CEQA, Fish and Game Code, and the California Water Code; and
- Would likely be considered a prejudicial abuse of discretion by the State Board.

Therefore, the Department recommends that the State Board:

- ❖ Recirculate the DEIR, and utilize as the CEQA baseline, (1) the environmental conditions that existed prior to the applicant's diversion of the water for which an appropriated right is being sought, and (2) which reflects a reasonable and beneficial use of the water the applicant is diverting under a riparian right.

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- The CEQA baseline should be based only on El Sur Ranch's identified riparian right to irrigate pasture lands that are within the Big Sur River watershed (the actual acreage should be verified by the State Board); and
- The CEQA baseline of El Sur Ranch's riparian right(s) should be based on a reasonable and beneficial use based on the annual diversion rate established pursuant to Water Code section 1004, which specifies that no more than 2 ½ acre feet per acre per year be considered "useful or beneficial" in the irrigation of uncultivated areas of land not devoted to cultivated crops; and
- The CEQA baseline should be based on a reasonable and beneficial use based on the continuous diversion rate (or duty) at the well head of no more than 1 cfs to each 80 acres of irrigated land pursuant to Title 23, Section 697(a)(1).

Failure of DEIR to Identify "Feasible" Project Alternatives Consistent with Project Objectives

CEQA requires that the range of alternatives evaluated in the EIR shall be limited to those which are feasible; factors which may be taken into account in the determination of "feasibility" include "...*site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to an alternative site...*" (Italics added) (CEQA Guidelines §15126.6(a)(1)).

Project objectives for this water right application, as stated in the DEIR (pages 2-19), are as follows:

- Allow for the appropriation of water from the Big Sur River for use on the El Sur Ranch through issuance of an appropriative water right permit, consistent with the State Board's responsibility to consider water availability, the public interest, the protection of fish, wildlife, and public trust resources, water quality, prior legal water rights, and to condition the appropriation as necessary;
- Allow for the continued diversion and beneficial use of water for irrigation of 267 acres of pasture for cattle grazing; and
- Continue economic use of the land for agricultural purposes and grazing of cattle consistent with Monterey County Zoning Ordinance, Coastal Implementation Plan, and the Monterey County General Plan.

In spite of the first and third objectives identified above, the DEIR did not provide analysis of any alternative (including the proposed project) as to their consistency with those responsibilities identified in the objectives; nor Water Code, the Coastal Act, and the California Code of Regulations; the Big Sur Local Coastal Plan (BSLCP); the federal ESA; and/or the sensitivity of the site. Nor does analysis of the proposed Project, or any of the alternatives presented, address the responsibility of the State Board, as laid out by the California Supreme Court in its 1983 *Audubon* decision, to consider public trust resources before approving a water right application; to implement only an approval

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which would feasibly protect public trust resources; and determine that all uses of water (existing and proposed) conform to the standard of reasonable use.

It is the State Board's responsibility to work with the applicant and the EIR consultants to provide the context of the project, in terms of what is "permissible" under existing state statutes and regulations, consistent with *Audubon*; able to avoid the need for (or secure) incidental take authorization per the ESA; and, further, to insure that a document is prepared which clearly evaluates a proposed project and alternatives in that context..

- The Proposed Project is not accurately evaluated to determine if it meets the three objectives. It would appear that this alternative would not be consistent with all the objectives; in particular, no evaluation was completed to determine if the approval of the project (as proposed, or modified) would address public trust resources (which should be evaluated independent of any designated CEQA baseline).
- No Project/No Permit Alternative is comprised of the continued diversion of water from the Big Sur River under the El Sur Ranch's riparian right(s). As reported by the El Sur Ranch in filings required by the State Board on riparian diversions, more than 2,088 acre feet annually (afa) are diverted for use on 25 to 290 acres (as variously reported) of ranch land which are claimed to be riparian to the Big Sur River. Although it would appear that these reports may be duplicative, and are not accurate as to the acreage which is actually riparian (whatever the actual riparian diversions are) there are no provisions in this alternative for either determining the need for compliance with the ESA, or securing the protection of public trust resources per *Audubon*. As such, it is not clear that this alternative would meet the Project's objectives.
- The No Change in Existing Practices/Historic Diversions Alternative is based on conditions which are essentially the same as the baseline which the State Board established for the DEIR; thus, this alternative has no "apparent" effects when compared to baseline. Additionally, this alternative has several aspects which are environmentally superior to the proposed Project. However, this alternative was not evaluated to determine if it is consistent with Water Code and the Coastal Act, has all required coastal permits, would need take authorization under the ESA, and would provide the protections warranted by *Audubon*. As such, it is not clear that this alternative would meet the Project's objectives.
- The final EIR (released on May 18, 2011, and not officially incorporated into the record for these proceedings) does analyze an alternative proposed by the Department, but then dismisses it as not meeting the Project proponent's objectives. In fact, it may be the only alternative which does in fact meet all Project alternatives.

Therefore, the Department recommends that the State Board:

- ❖ Prepare an analysis of the public trust resources, sufficient to be able to evaluate whether any alternative, including the proposed Project, would have terms and conditions sufficient to protect the public trust resources, as required by *Audubon*.
- ❖ Identify one or more alternatives to the proposed project which would be consistent with the overarching provisions of Water Code and the Coastal Act, the ESA, Public

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Resources Code 10000 et seq., other appropriate statutes and regulations, as well as providing for protection of public trust resources per *Audubon*.

- ❖ Recirculate the DEIR, with feasible alternatives, which would be evaluated as to their ability to comply with applicable case law, statutes and regulations.

Reasonableness of Water Diversion and Use/Diversion Limitations

The quantity of water requested by El Sur Ranch exceeds what is normally considered reasonable use. The request is more than twice as much as the recommended water duty identified in the State Water Code for irrigation of uncultivated areas of land, and twice the typical application rate for riparian pasture lands given in the April 3, 1992 State Board investigation report. The California Department of Water Resources (DWR) provides on its web site spreadsheets for several years, 1998 through 2001, which tabulate agricultural land and water use throughout California⁶. El Sur Ranch is located in the detailed analysis unit 057-Santa Lucia Range, the planning area 301-northern central coast, and central coast hydrologic region. The listed range of applied water for pasture in these study areas for the years 1998 through 2001, is from 2.17 to 3.5 af/acre, with the lesser amounts applied in areas of higher rainfall. The Department's concerns regarding unreasonable method of diversion and use are as follows:

- The proposed application of 6 plus feet of water to a pasture greatly exceeds the irrigation requirement that others have either measured in the Monterey County area for pastures or cited as being considered not wasteful.

Statements of diversion and use along with appropriative license data on file with the Division of Water Rights show that all other diverters on the Big Sur River divert approximately 340 afa combined. The applicant claims to divert approximately 4,600 afa based on riparian statements of diversion and use to irrigate between 25 to 290 acres of riparian land. Water Code Section 5106(c) requires that in "any proceeding before the board to determine whether an application for a permit to appropriate water should be approved, any statement submitted under this part or determination by the board pursuant to Section 5105 is evidence of the facts stated therein." The application proposes to appropriate an additional 1,615 afa for pasture land outside of the area of origin, the Big Sur River watershed. This requested amount likely would necessitate the State Board to re-analyze the cumulative flow impairment index and then make another determination of whether surplus water is available for appropriation.

- The applicant claims that existing irrigation practices and infrastructure limit what they can divert, even though the quantity requested in its appropriative water rights application and the statements of riparian diversion and use greatly exceeds the continuous diversion rate limit requested in the application.

The applicant proposes to divert a maximum of 1,615 afa, with a 20-year running average of 1,200 afa, with 735 acre feet (af) being the maximum quantity diverted between July 1 and October 31. Other limitations identified in the water right application include a monthly maximum of 230 af in any single month during July 1 to October 31; a maximum continuous, or instantaneous diversion rate of 5.84 cfs and a 30-day running average instantaneous diversion rate of 5.30 cfs. Impacts to public trust resources should

⁶ <http://www.water.ca.gov/landwateruse/anlwuest.cfm>

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be based on the instantaneous rates of water diversion rather than long-term averages; with the total volume of diversion calculated as time weighted average of instantaneous pumping rates. The Department's concerns are specifically:

- The July 1 to October 31 period is the driest of the year, and corresponds with the lowest streamflows.
- Under the applicant's proposed method of diversion, a monthly maximum of 230 af could be diverted during any single month between the July 1- October 31 dry period, which exceeds the instantaneous diversion rate considered a reasonable use pursuant to Title 23, Section 697(a)(1).
- The applicant's diversions would have the greatest effect on steelhead during the most critical times of the year.
- Impacts to fish and wildlife cannot be assessed based on long-term averages - they are affected directly based on actual instantaneous impacts of pumping.

The Department recommends the State Board include the following terms and conditions in any water right permit issued to El Sur Ranch:

- ❖ Require a registered professional surveyor, verified by the Division of Water Rights, to determine the acreage of irrigated lands, including riparian acreage, in order to resolve the reasonable quantity of water permitted for diversion.
- ❖ Restrict the annual diversion based on a formula that would multiply the acres of irrigated pasture subject to the appropriated water right by the af/acre appropriate to local conditions, not to exceed 2 ½ af/acre, as specified for uncultivated areas of land in Water Code section 1004.
- ❖ Restrict to 2.79 cfs (or 3.1 cfs if 25 acres of riparian land is included in the appropriation) the maximum allowable instantaneous rate of diversion for 223 acres of irrigated pasture (248 if riparian land included), based on a water duty of 1 cfs/80 acres [CCR T23 Section 697(a)(1)].
- ❖ Restrict to 558 af, (or 620 af if riparian land is included in the appropriation) the maximum allowable annual diversion for 223 (248) acres of irrigated pasture based on a 2.5 af/acre water duty as established for "useful and beneficial purposes" in California Water Code section 1004.
- ❖ If the 25 acres riparian land is included in the appropriative water right, then the diversion of water for use on this land under the applicant's riparian right should be suspended, or the appropriative right revoked.

Runoff, Erosion and Sedimentation Management

Runoff from irrigated pastures should be managed in such a manner as to not cause pollution or a nuisance, including erosion and sedimentation, of receiving waters within the stream zone of the lower Big Sur River, Swiss Canyon and/or the ocean.

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The Department recommends the State Board include the following terms and conditions in any water right permit issued to El Sur Ranch:

- ❖ Excluding pasture lands subject to planting, areas susceptible to potential erosion shall be stabilized by planting and seeding with native species, with mulching being conditionally acceptable. Where suitable vegetation cannot reasonably be expected to become established, non-erodible material shall be used for such stabilization. Natural-fiber, biodegradable meshes and coir rolls are acceptable for use; “photodegradable” and other plastic mesh products are not acceptable, as they have been found to persist in the environment, ensnaring and killing terrestrial wildlife.
- ❖ The applicant shall prepare and implement a plan to control erosion and stabilize areas subject to disturbance during water diversion, application and tailwater discharge activities. An Erosion Control and Sedimentation Prevention Plan shall be submitted for Department approval and implemented on a year-round basis for all areas subject to water application and tailwater discharge.
- ❖ If the Regional Water Quality Control Board determines that a Report of Waste Discharge or other permit is required for the applicant’s discharge waters, then the necessary permit should be obtained and a copy of the permit and Report of Waste Discharge provided to the Department.

Monitoring and Reporting

The proposed method of diversion and water application, as well as the quantities of water requested, have the potential to significantly affect fish and wildlife public trust resources. Without sufficient monitoring and reporting of project activities, the Department cannot ensure adequate protection of these resources. El Sur Ranch should be required to prepare and implement a mitigation monitoring plan that addresses monitoring and reporting of compliance with permit terms and conditions. The plan should assess mitigation performance, identify successes and failures, and propose additional measures that El Sur Ranch will implement to improve/correct any deficiencies.

The Department recommends State Board include the following terms in any water right permit issued to El Sur Ranch:

- ❖ El Sur Ranch shall develop and implement a plan for compliance monitoring within 90 days of State Board approval of the permit, and the plan shall be reviewed and approved by the State Board and the Department.
- ❖ The applicant shall install and maintain water flow meters and automated data logger(s) of a type, number and location subject to the approval of the State Board and Department, which records the volume and rate of diverted water, including instantaneous and cumulative diversion rates, and the date and time of day of diversion.
 - Water usage and well pumping data for each well separately shall be accumulated and reported monthly during the period between December and May, and weekly between June and November to the State Board and the Department.

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- Collected information on flows and rates of diversions shall also be submitted to the Department upon request.
- The quantity of water diverted for riparian use and the quantity diverted for use under the appropriative right shall each be metered and monitored separately and reported to the State Board and Department as described above.
- Should the meters, recording and/or monitoring devices fail, or otherwise fail to report a record of diversions, no pumping shall be allowed until the meters, recording and all other devices and fixtures necessary for monitoring are properly repaired and made operable.
- ❖ The El Sur Ranch shall fund the long-term maintenance of the stream gauge, to be located above the diversion, but below the other numerous diverters in the watershed. Within 30 days of approval by the State Board of the permit, the applicant is required to deposit funds into a non-wasting endowment account sufficient to provide funding for maintenance of the new gauge in perpetuity.
 - If El Sur Ranch fails to provide funding to support operation of this stream gauge, then the permit shall specify that the existing USGS Big Sur gauge, #11143000, shall be used to measure flows in the river and determine when El Sur Ranch wells stop pumping to provide for adequate bypass flows. The use of the Big Sur gauge for bypass flow compliance monitoring requires that the instantaneous flow bypass flow rate shall be calculated based on summation of the seasonal requirements for protection fisheries and other public trust resources, plus the maximum recorded losses in flow between the El Sur Ranch point of diversion and the Big Sur gauge #11143000, plus the maximum permitted instantaneous diversion rate.
- ❖ El Sur Ranch shall include in its reports, printouts of stream gauge flow data identifying periods where diversion restrictions were required and verification that pumping was restricted, by including reports of all diversion meters readings and data collected by electronic data loggers along with all corresponding stream gauge data for the same time periods.
- ❖ El Sur Ranch shall perform at least monthly inspections for erosion and potential discharge of sediments and other pollutants in runoff from irrigated pastures. More frequent monitoring and reporting shall be conducted as required by any approved Erosion Control and Sedimentation Prevention Plan and/or requirements of any permit required by the Regional Water Quality Control Board. The monitoring report, taking an adaptive management approach, shall include identification and description of potential causes of erosion, corrective measures implemented to prevent additional erosion, assessments of corrective measures and further mitigation as necessary.
- ❖ The El Sur Ranch shall prepare, implement, and submit to the Department for prior approval, a Water Quality Monitoring Plan. The Plan shall include monitoring methodology outlined in Attachment A. Measurements may be collected using either

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a handheld meter or automated water quality monitoring device of acceptable quality and capable of measuring temperature, dissolved oxygen, electrical conductivity, and pH. Sampling locations and frequency shall be pursuant to the attached methodology. Monitoring results, as well as response actions taken (i.e., pumping restrictions) shall be reported to the State Board and Department monthly from May through December, and annually to include all monitoring data.

- ❖ The Water Quality Monitoring Plan shall be in conformance with the accuracy and precision, and quality assurance requirements of the Surface Water Ambient Monitoring Program.
- ❖ The water rights permit shall require the El Sur Ranch to mitigate present and future potential impacts to public trust resources to the satisfaction of the State Board and Department.

Restriction of All El Sur Ranch Diversions to the Permitted Amount

The applicant applies diverted water from its wells to irrigate the entire acreage of pastureland, including the approximately 25 acres that lies within the Big Sur River watershed. Because the quantity of water subject to Water Right Application No. 30166 appears to include water applied to both riparian and non-riparian land, the permitted amount should clearly state whether the diversion amounts include all water diverted under appropriative and riparian right. If the permit does not include water for use on riparian lands, this should be clearly stated.

Monitoring of diversions should measure and report separately the quantities of water applied to riparian lands and to non-riparian lands.

Therefore, the Department recommends State Board include the following term in any water right permit issued to El Sur Ranch:

- ❖ The total quantity and rate of water diverted and used under the permit and under permittee's claimed existing right for the place of use specified in the permit, shall not exceed the quantity and rate of diversion and use specified in the permit. To the extent that the permittee claims riparian, overlying, pre-1914 appropriative, or other rights to use the water on lands covered by the permit, the permittee shall not be entitled to water in excess of the amount authorized in the permit.

Streambed Alteration Agreement Requirement

Fish and Game Code Section 1602 requires an entity to notify the Department of any proposed activity that may substantially divert the natural flow of any river. The notification requirement applies to work undertaken in or near any river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

El Sur Ranch should be advised that a Streambed Alteration Agreement (SAA) pursuant to Fish and Game Code Section 1602 shall be required prior to any activity, including diversion, in the stream zone of the Big Sur River and Swiss Canyon. An SAA may also be required for any maintenance activities (e.g., sediment or vegetation removal) within

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the tailwater pond. This process will be administered through the Central Region Office in Fresno and can be initiated by contacting the Streambed Alteration Program at (559) 243-4014, extension 230. Work cannot be initiated until an SAA is executed by El Sur Ranch and the Department or unless proper notification pursuant to Fish and Game Code Section 1602 has occurred and the allowable time for the Department to issue a Draft SAA has lapsed.

Statewide Policy on Steelhead

Steelhead is an important species to the State of California, both ecologically and from a fisheries resource perspective. Included, and incorporated into this Policy Statement by reference, is the Fish and Game Commission Statewide Policy for Steelhead (Attachment B). Additionally, several other statutes, policies, and plans exist to ensure the Department of Fish and Game and Fish and Game Commission protects wild, naturally spawning steelhead. Following is a brief description, and/or excerpts, for each.

The Salmon, Steelhead Trout, and Anadromous Fisheries Program Act of 1988 (Senate Bill 2261). This established a Department policy to double the production of naturally spawning steelhead by 2000. The Act also initiated the development of the Department's *Steelhead Restoration and Management Plan for California* (Steelhead Plan). The first edition of was published in 1996. The document is currently being revised. The founding goal of the Steelhead Plan is to serve as the blueprint for the Department's efforts to restore across the California.

2009 And 2010 Interagency Fish Rescue Strategy. The Department, in coordination with the NMFS, Southwest Region, and FWS, Region 8, provide fish rescue efforts for salmonids including steelhead when such activities are in the best interest of the species. Rescue efforts are prioritized based on the level of protection status afforded to species considered for rescue. For example, a listed endangered species would have priority for rescue over a listed threatened species, and so on.

Fish and Game Code Section 1725. This act shall be known as the Trout and Steelhead Conservation and Management Planning Act of 1979.

Section 1726. The Legislature hereby finds and declares that it is the policy of the state to do all of the following:

Excerpt- (a) Establish and maintain wild trout stocks in suitable waters of the state that are readily accessible to the general public as well as in those waters in remote areas.

Fish and Game Code Section 5937. The owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam.

Fish and Game Code Section 7380. Revenue received pursuant to this section (Steelhead Report Card) may only be expended to monitor, restore, or enhance steelhead trout resources consistent with Fish and Game Code 6900 and to administer the Steelhead Report Card program. Each year, the Department offers a public solicitation notice for

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grant proposals. Grants support enhancement of wild steelhead. Steelhead report card regulations require wild steelhead caught by recreational anglers be released.

Fish and Game Code Sections 6900-6903.5. The Salmon, Steelhead Trout, and Anadromous Fisheries Program Act. *Excerpts-*

6901. g) The protection of, and increase in, the naturally spawning salmon and steelhead trout of the state must be accomplished primarily through the improvement of stream habitat.
6902. c) It is the policy of the state that existing natural salmon and steelhead trout habitat shall not be diminished further without offsetting the impacts of the lost habitat.

Summary:

Species occurring within the Project area are afforded special protection status under the federal ESA. These species include the threatened California red-legged frog and steelhead. The Big Sur River is designated by the ESA as critical habitat for steelhead, and supports this population which has an especially significant importance to the South Central California Coast DPS as a whole. The potential detrimental effects from excessive water use, and methods of water diversion and application by the El Sur Ranch, require State Board to recognize the significance of these public trust resources, and realize its ability and duty to protect them. The Department recommends the State Board limit the El Sur Ranch's quantities of water use and ensure adequate instream flow pursuant to the interim Wetted Perimeter Analysis and incorporate into the water rights permit the PHABSIM findings as soon as they are available. The State Board should fulfill its obligation to the people of the State by protecting habitat in the Big Sur River required by these valuable public trust resources.


Jeffrey R. Single, Ph.D.
Regional Manager
Central Region

Attachment A

Lagoon Monitoring Methodology

Purpose:

The purpose is to determine water quality changes spatially and temporally through the critical low-flow (summer months) with the estuary/lagoon complex. The conversion of from an estuary that is a saltwater system to a freshwater lagoon is a dynamic process that forms a system that is hydraulically disconnected from the ocean, exchanges from ocean swells, fluctuating tides, and percolation through the sandbar. Because of the dynamics of the lagoon, different age classes utilize the lagoon in various ways. Salmonids, in particular, may spend anywhere between several hours to several months within a lagoon rearing before entering the ocean.

Method:

General Water Quality Monitoring Program

The five most important parameter to document to evaluate changes to the lagoon environment are: (1) in-flows, (2) salinity, (3) temperature, (4) dissolved oxygen, and (5) pH, although other parameters such as turbidity, nitrate, and phosphate concentrations are useful for other beneficial use analysis.

Sampling Locations, Parameters, Frequency

General water quality measurements of dissolved oxygen (DO), salinity, pH, and temperature will occur during April through November. Continuous sampling should record at frequent intervals (e.g. hourly) to capture changes in the lagoon. Upstream of the lagoon, monthly grab samples would be sufficient for documenting overall changes to freshwater inputs into the lagoon. The locations should be stratified to represent the entire lagoon system.¹ Samples should be taken at a one foot depth interval. Ideally, a continuous monitoring setup that transitions through varying levels would provide greater data, however it can be cost prohibitive. Grab samples for sites outside of the lagoon complex should occur away from the bank in flowing surface water and at a depth approximately 60% of the water column. Readings should record data at hourly intervals in degrees Celsius (°C) to the nearest 0.1° for temperature, pH can be measured to the nearest 0.1 measurement, to the nearest 0.1 milligrams per liter (mg/L) and at what saturation percentage for DO, and part per thousand (ppt) for salinity.

Flows should be measured using a flow gage to the nearest 0.1 cubic feet per second (cfs). Flow data is recorded hourly and can be retrieved from USGS gages. If a USGS is not in close proximity, a pressure-transducer or equivalent technology can measure water surface elevation and be calibrated with cross-sections and flow measurements to establish a flow curve.

Quality Sampling Quality Assurance

If continuous sampling is conducted, routine monthly grab samples should also be performed to verify accuracy of the data and calibrate the equipment.

¹ The three zones, lower, middle, upper, are defined by the variation of freshwater to saltwater concentrations with the upper section having the greatest inflow of freshwater and the lower section having the greatest concentration of saltwater

Attachment A

Lagoon Monitoring Methodology (Cont.)

- a) Samples should be collected in containers with labels to be filled out with permanent ink prior to attachment to the container
- b) Sample labels will include: location, date, and time of sample location
- c) Sampling equipment such as a Kmmerer bottle will be rinsed with lagoon water from each sample site prior to retaining the water sample from that site

Attachment B

DRAFT **FISH AND GAME COMMISSION POLICY ON ANADROMOUS RAINBOW TROUT**

The following policy provides direction to the Department regarding management, restoration, and protection of steelhead (anadromous rainbow trout) with emphasis on naturally spawned fish. The policy directs the Department to protect critical habitat elements that support natural-origin steelhead including spawning and rearing areas, coastal lagoons, and the instream flows that support those habitats. The policy also directs the Department to oppose development that will result in loss of habitat.

Excerpts:

It is the policy of the Fish and Game Commission that:

- I. Anadromous rainbow trout, commonly called steelhead, shall be managed to protect and maintain the populations and genetic integrity of all identifiable stocks. Naturally spawned anadromous rainbow trout shall provide the foundation of the Department's management program.
- II. Anadromous rainbow trout populations shall be periodically inventoried by the Department, or its agents, as necessary for management and protection of the anadromous rainbow trout stocks and their habitat, as outlined in this policy.
- III. Anadromous rainbow trout streams shall be inventoried for quantity and quality of habitat, including stream flow conditions. Restoration and acquisition plans shall be developed and implemented to safeguard such critical habitats as estuaries, coastal lagoons, and spawning and rearing areas, and to protect or guarantee future instream flows. Steelhead Fishing Report - Restoration Card Program and other funding may be directed to implement the plans.
- IV. Existing anadromous rainbow trout habitat shall not be diminished further without offsetting mitigation of equal or greater long-term habitat benefits. All available steps shall be taken to prevent loss of habitat, and the Department shall oppose any development or project that will result in irreplaceable losses. Artificial production shall not be considered appropriate mitigation for loss of wild fish or their habitat.
- V. The Department shall strive to improve habitat conditions, alleviate threats, and renegotiate mitigation requirements at appropriate opportunities to eliminate the need for fish rescue operations. Anadromous rainbow trout rescue will not be considered as mitigation for proposed water development.

**Before the
State Water Resources Control Board
June 16, 2011**

In the Matter of
Consideration of Water Rights Permit for El Sur Ranch,
Big Sur River, Monterey County

**Policy Statement Summary of
The California Department of Fish and Game
(Attachment C)**

Good morning Chairman Hoppin, members of the Board. I'm Robert Holmes, Staff Environmental Scientist with the Department of Fish and Game. I am the Instream Flow Coordinator for the Department, as well as the California representative on the national Instream Flow Council. I am currently leading an instream flow study in the Big Sur River, which is intended to quantify or characterize south-central steelhead habitat in the Big Sur River as a function of flow, and provide the best available scientific information upon which to base flow recommendations that are protective of fish and wildlife, especially south-central steelhead.

The Big Sur River was identified as one of the Department's twenty-two priority streams in 2008 for instream flow recommendations. Pursuant to the Public Resources Code (PRC) sections 10000-10005, the Department is mandated to identify stream flow requirements for the long-term protection, maintenance and proper stewardship of fish and wildlife resources for each priority stream. Available data were not sufficient to fulfill the Department's PRC obligations for the Big Sur River and, as such, the Department began the mandated instream flow study in the fall of 2009.

The stream flow requirements identified through the current study will include flows needed for protection of the following south-central steelhead life stages:

- 1) Adult passage
- 2) Juvenile rearing
- 3) Adult spawning

The study's final project report is scheduled for completion in August 2012. The Department will then seek consultation pursuant to the PRC on the stream flow requirements, and after such, will transmit the stream flow requirements to the State Water Resources Control Board (SWRCB) for consideration as set forth in Section 1257.5 of the Water Code. It is anticipated the stream flow requirements for the Big Sur River will be transmitted to SWRCB in early 2013.

The study is focused on the lower 7.5 miles of the Big Sur River – as well as the lagoon, consistent with the anadromous zone for south-central steelhead. The study approach is consistent with the Department's Instream Flow Incremental Methodology (IFIM) policy, and includes the following methods and components:

- 1) Habitat mapping and sampling sites spanning the length of steelhead anadromy;

- 2) Lagoon assessment including steelhead surveys, bathymetric mapping and water quality assessments;
- 3) Site-specific habitat suitability criteria (HSC) development for rearing juvenile steelhead;
- 4) Critical riffle passage assessments;
- 5) 1-Dimensional and 2-Dimensional physical habitat simulation (PHABSIM) hydraulic models;
- 6) USGS stream flow gage installed in the lower reach of the river.

This study will provide the best available scientific information upon which to set flow standards for the Big Sur River, and as such, should be a key element of the Board's current and future decisions on the El Sur Ranch water rights application, as well as other applications for the Big Sur River it may consider.