

Initial Study for the
El Sur Ranch
Water Right Application No. 30166
Monterey, California

Prepared for:

California State Water Resources Control Board
Division of Water Rights

Prepared by:



June 2006

Initial Study for the
El Sur Ranch Water Right Application No. 30166
Monterey, California

Prepared for:

California State Water Resources Control Board
Division of Water Rights

Prepared by:



June 2006

TABLE OF CONTENTS

| <u>Chapter</u> | <u>Page</u> |
|---|-------------|
| 1. INTRODUCTION | 1-1 |
| 2. PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING | 2-1 |
| 3. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED | 3-1 |
| 4. DETERMINATION | 4-1 |
| 5. EVALUATION OF ENVIRONMENTAL IMPACTS | 5-1 |
| Aesthetics | 5-2 |
| Agricultural Resources | 5-4 |
| Air Quality | 5-6 |
| Biological Resources | 5-8 |
| Cultural Resources | 5-18 |
| Geology and Soils | 5-19 |
| Hazards and Hazardous Materials | 5-22 |
| Hydrology and Water Quality..... | 5-26 |
| Land Use and Planning | 5-35 |
| Mineral Resources | 5-37 |
| Noise | 5-39 |
| Population and Housing | 5-41 |
| Public Services | 5-43 |
| Recreation | 5-44 |
| Transportation/Circulation | 5-45 |
| Utilities and Service Systems | 5-47 |
| Mandatory Findings of Significance | 5-49 |

List of Figures

| | |
|---|-----|
| Figure 1 - Regional Location..... | 2-2 |
| Figure 2 - Project Location..... | 2-3 |
| Figure 3 - View of Old Well from South..... | 2-5 |
| Figure 4 - View of New Well from North..... | 2-6 |

1. INTRODUCTION

Basic Project Information

1. Project Title: El Sur Ranch Water Right Application #30166

2. Lead Agency Name and Address: California State Water Resource Control Board
Post Office Box 2000
Sacramento, CA 95812

3. Contact Person and Phone Number: Paul Murphey
Division of Water Rights
State Water Resources Control Board
(916) 341-5435

4. Project Location: Monterey County, California

5. Project Sponsor's Name and Address: James J. Hill III
c/o Janet Goldsmith
Kronick, Moskovitz, Tiedman & Girard
400 Capitol Mall, 27th Floor
Sacramento, CA 95814

6. General Plan Designation: Agriculture

7. Zoning: Agriculture

8. Description of Project: Water Right Application

9. Surrounding Land Uses and Setting: Land surrounding the project is characterized by agricultural production and cattle grazing to the west and south. The Big Sur River runs adjacent to the proposed project's southern boundary; Andrew Molera State Park is located further south. To the east are vacant cattle grazing lands.

10. Other Public Agencies Whose Approval is Required: None

This Initial Study was conducted by State Water Resources Control Board (State Water Board or Board) to evaluate the potential environmental impacts of Water Right Application No. 30166 pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.). The State Water Board, which is the lead agency under CEQA for this project, has permitting authority over the appropriation of surface water and subterranean streams flowing through known and definite channels. (Wat. Code, §§ 1200-1201.) A person seeking to appropriate water subject to the State Water Board's permitting authority must file a water right application with the Board and obtain a water right permit to appropriate water.

On July 10, 1992, Water Right Application No. 30166 was filed by Mr. James Hill on behalf of El Sur Ranch (Ranch). The application represents the proposed project under CEQA. The Ranch is a 292-acre cattle operation located on the Big Sur Coast, adjacent to the Big Sur River in Monterey County, California. The application seeks a maximum direct diversion of 1,615 acre-feet per annum (afa), with a twenty-year rolling average not to exceed 1,200 afa, from two wells near the mouth of the Big Sur River for irrigating 267 acres of pastureland out of a 292-acre place of use.

As explained in Section 5, the proposed project may have a significant impact on the following environmental factors: biological resources, hydrology/water quality, geology and soils, and mandatory findings of significance.

2. PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

Project Location

The Ranch is located along the Big Sur Coast in Monterey County, California, roughly 25 miles south of the City of Monterey on State Highway 1 between the Santa Lucia Mountains to the northeast and the Pacific Ocean to the southwest (Figure 1). The Ranch, established in 1834, consists of approximately 292 acres of privately-owned irrigated pasturelands located immediately north of the Big Sur River and Andrew Molera State Park (SP) and approximately one and one-half miles south of the Point Sur State Historic Park (Figure 2). Twenty-five acres of the total irrigated acreage are on riparian lands, and water diverted to use on those riparian lands is not subject to this water right application.

Project Site and Environmental Setting

The project site primarily is defined by information contained in the El Sur Ranch water right Application 30166. The project site includes the intended “place of use” (POU), the intended “points of diversion” (PODs), as well as the non-irrigated area known as Swiss Canyon that is located on Ranch property and bisects the POU.

The environmental setting evaluated in this Initial Study includes areas potentially affected by approval of the project: the project site, the Big Sur River and adjacent riparian habitat from the mouth of the river to approximately one mile upstream from the mouth of the river, and the area between the river and the Ranch property on which the PODs are located. The environmental setting also includes the riparian habitat on the south side of the river, including Creamery Meadow, which is located to the southeast of the lower Big Sur River, the PODs, and the POU (Figure 2).

Place of Use

The POU consists of approximately 292 acres of irrigated upland pastures situated between the Santa Lucia Mountains and the Pacific Ocean. The POU boundaries are generally delineated physically by barbed-wired fencing and the following major features: State Highway 1 to the northeast; the Pacific Ocean to the southwest; an un-named creek to the northwest; and the



0 3 6
Miles
1 inch equals 6 miles

Source: CDFG, County Boundaries, Land Ownership, July, 2005; TIGER 2K Transportation, Roads, June 2000; USGS, Hydrography, Dec. 1998; and EIP Associates, El Sur Ranch Boundary, Nov. 14, 2005.





- Ranch Boundary
- Andrew Molera State Park
- County Boundary
- Big Sur River
- Highway

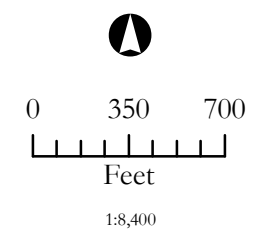
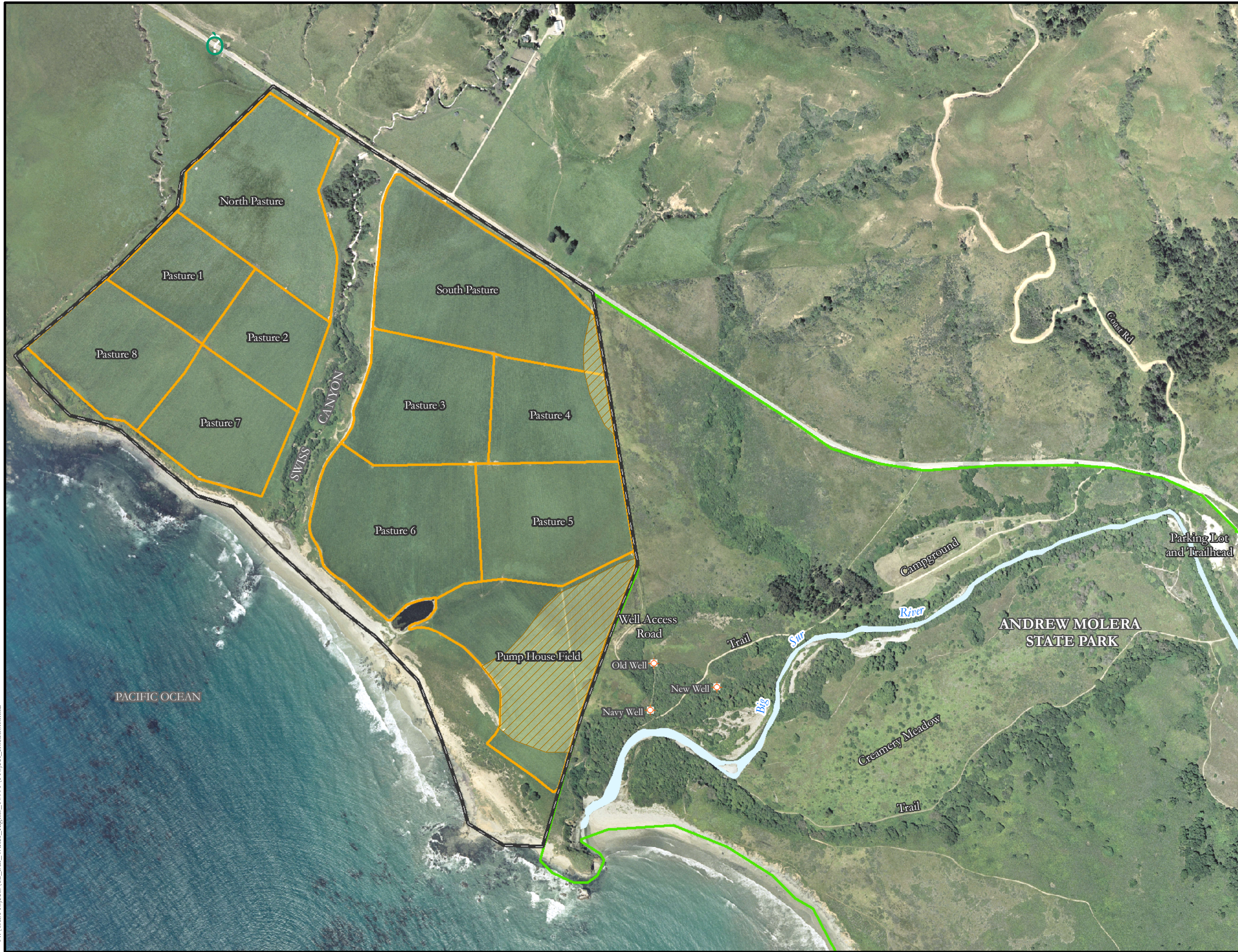
**FIGURE 1
REGIONAL
LOCATION**

El Sur Ranch Water Rights
Application #30166
Monterey County, CA

FIGURE 2 PROJECT LOCATION

El Sur Ranch Water Rights
Application #30166
Monterey County, CA

-  Place of Use
-  ESR Pasture Boundary
-  Big Sur Riparian Area
-  Well Location



Source: AirPhotoUSA, Aerial, May, 2005; and EIP Associates, Approximate Project Boundary, November 14, 2005 and GIS Program, May 10, 2006.

Project Number - 10911-00



Andrew Molera SP to the east. The POU is bisected by Swiss Canyon (which is not part of the POU), a perennial incised drainage channel supporting native grass, shrubs, and other riparian plants that is located on the Ranch property. Swiss Canyon conveys runoff from off site areas north of Highway 1 and from the POU to the ocean. The canyon is accessible to cattle for grazing. As noted above, although the POU encompasses 292 acres, only 267 acres are covered under Application 30166; the remaining 25 acres are covered under riparian claim (Figure 2).

The POU is divided into two functional units for accommodating the Ranch's pumping and irrigation requirements. The western half of the POU contains the North Pasture and Pastures 1, 2, 7, and 8, while the eastern half of the POU contains the South Pasture, Pump House Pasture, and Pastures 3, 4, 5, and 6 (Figure 2). Evidence of continuous water use from 1950 in the POU is well documented in the records of the Ranch and includes the irrigation system plans and specifications, contracts for construction of the irrigation systems, well logs, and records of pumping and power use at the wells.

Points of Diversion

The proposed PODs include two wells; the Old Well, which was constructed around 1950, and the New Well, constructed in 1975 and placed in operation in 1984. The Old and New Wells are located approximately 500 and 1,000 feet east of the Ranch pasture boundary, respectively, in an easement within Andrew Molera SP. The Old Well, located approximately 500 feet from the river and approximately 1,300 feet from the mouth of the Big Sur River, includes a secured pump house with corrugated metal siding and noise reduction material, two standpipes, and an electric-powered pump and associated pipes and fittings (Figure 3). The New Well, located approximately 400 feet from the river and approximately 1,375 feet from the mouth of the river, is surrounded by brush and trees and is situated adjacent to a side trail along the park boundary (Figure 4). The New Well is housed in a secured structure with an electric-powered turbine pump and associated valves, pipes, and fittings. Three sides of the New Well housing are covered in noise abatement material to reduce pump noise detection along the park trail. Together, these wells convey water directly west and uphill to the Ranch's pasturelands via an underground pipe.



Source: EIP Associates, 2005.



FIGURE 3
View of Old Well from the South

10991-01



Source: EIP Associates, 2005.



FIGURE 4
View of New Well from the North

10991-01

The Old Well is equipped with an electric motor driven 60-horsepower (hp) pump that has reported pump rates between approximately 1,145 gallons per minute (gpm) and 2,000 gpm. Since no well drilling report exists, the depth of the Old Well is unknown. The New Well is approximately 32 feet deep and equipped with an electric motor driven 50-hp pump that has reported pump rates between approximately 963 gpm and 1,567 gpm. Both wells pump simultaneously at their maximum pump rates when water is needed for irrigation of pastures, typically during dry periods of the year (e.g., summer months).

Ranch Irrigation System Operation

The Ranch's irrigated pasture is surface irrigated with border strips. Border-irrigated fields consist of strips of sloping land (top to bottom) with no or minimal cross slope between low earth berms (dikes, checks, or ridges). The border strips on the Ranch's irrigated pasture are 14 feet wide and vary in length from about 500 to 1,000 feet. Border strips are irrigated from lateral pipelines. Irrigation water is introduced at the upslope end of the border strips and gravity directs flows to the bottom slope end of the border strips. The tailwater from all but the bottom set of borders flows to the next downstream set of borders.

Water from the wells is conveyed through a pipeline system with valves to deliver water to the pasture. The pipeline consists of 14-inch diameter concrete or PVC with valves placed 28-feet apart across the head of the pastures. One valve irrigates two border strips. While both wells can be used to irrigate any of the pastures, the Old Well is used primarily to supply water to the upper irrigated pastures and the New Well is primarily used on the middle and lower pastures.

The pastures are annually fertilized and are occasionally aerated to improve water percolation, reduce compaction, and improve overall productivity. On rare occasions, in years with late spring and early summer rains, the grazing of cattle in the non-irrigated portion of the Ranch is extended, allowing the irrigated pasture area to be cut and harvested for hay. After the hay is harvested, the pastures are irrigated and grazed through the remainder of the summer and fall. The number of cattle raised on the Ranch varies with the productivity of the pastures.

Under the terms of a 1982 easement agreement with the Andrew Molera SP (discussed below), the Ranch may be prohibited from pumping from the New Well when salinity above specific levels is observed in the irrigation water. The Ranch is required to monitor water salinity from

water samples taken from the New Well. Salinity is measured by the electrical conductivity of well water in the well. When electrical conductivity is above 1.0 mmhos/cm,¹ the Ranch must perform additional analysis to determine if the chloride concentration exceeds 250 parts per million (ppm). In the event that the chloride concentration exceeds 250 ppm, the California Department of Parks and Recreation (DPR) may require the Ranch to terminate pumping until the chloride concentration in the well is reduced. Spring (unusually high) tides, which occur at the full moon, result in saltwater intrusion that increases salinity levels within the Old Well in the summer months. According to the Ranch, it typically stops pumping the Old Well voluntarily when salinity levels, measured as electrical conductivity, reach 1.0 micro mhos per centimeter (mmho/cm).

Project Background

El Sur Ranch Water History

The Ranch's Old Well (State Well Number 19S 01E 16F 02M) was constructed around 1950 on what was then El Sur Ranch property and has been used continuously to flood irrigate lands on the Ranch since that time. In 1957, the Ranch allowed construction of another well (i.e., the "Navy Well") to serve the U.S. Naval Facility at Point Sur, approximately 2 miles to the northwest.

In 1971 the Molera Parcel, on which the Old Well was originally located, was deeded to the DPR and became part of the Andrew Molera SP. The deed reserved the Ranch's water rights associated with the parcel, and allowed for continued use of, and access to, the Old Well. During the early 1970's, the Ranch sought to improve water distribution reliability by increasing access to available water supplies through the development of the New Well and associated pump system.

In 1972 a temporary use permit was issued by DPR authorizing the drilling of three wells in the park. One well was intended to serve the Andrew Molera SP headquarters, a second well was intended to serve the U.S. Naval facility, and the third well was intended for Ranch irrigation (Letter from H.R. Howell to file of El Sur Ranch, July 12, 1985). This permit granted an

1 A unit of conductance, equal to the conductance between two points of a conductor such that a potential difference of 1 volt between these points produces a current of 1 ampere; the conductance of a conductor in siemens is the reciprocal of its resistance in ohms also known as reciprocal ohm or mho.

easement for construction and access if a sufficient water supply was discovered. The first well was drilled at the DPR headquarters in 1972 (DWR Drillers Report No. 86694).

Litigation related to development of the well sites ensued in 1977, and ultimately resulted in DPR granting the Ranch access to the Molera Parcel by the Ranch to complete development of its new irrigation well. Approximately four test wells were drilled north of the river on the Molera Parcel to find the best groundwater yield. On October 28, 1975, the Ranch completed construction of the New Well. The New Well was not intended to significantly increase pumping, water use, or to be used to irrigate lands in addition to the POU. According to the Applicant, the New Well was built primarily to optimize irrigation efficiency, reduce overall power use and costs, and make better use of available groundwater resources. The "Agreement and Grant of Easement", dated September 1, 1982, between DPR and the Ranch, contains provisions for the Ranch's use and operations of the New Well, including monitoring water quality.

On August 31, 1990, the DPR filed a complaint with the State Water Board alleging the excessive use of water by the Ranch and impacts on the Big Sur River, and questioning the Ranch's right to divert water. DPR claimed that a 3,000-foot section of the lower portion of the Big Sur River had become dry, and that the lagoon at the mouth of the river had reached critically low levels as a result of the Ranch's operation of the two wells. The DPR's complaint alleged that the water source for these wells, previously believed to be percolating groundwater, was actually underflow to the river and thus came under the State Water Board's permitting jurisdiction (at that time, the term "underflow" was commonly used in referring to a subterranean stream subject to the State Water Board's permitting authority). The complaint claimed that the Ranch's pumping had dried up reaches of the Big Sur River, thus having the potential to cause both short- and long-term impacts to public trust resources. DPR identified the loss of fresh water to both the river and lagoon as potential short-term impacts and salt-water intrusion and degradation to fish habitat as potential long-term impacts.

At the time the complaint was filed, some of California, including the Big Sur area, was experiencing its fourth consecutive dry or critically dry year. During the time that the river was observed to go dry, DPR was implementing a bank stabilization project approximately 2,500 feet upstream of the New Well location. The project included instream work, for which a section of the river had been diverted into a constructed bypass channel. The length of river that went dry

began in the location of the bank stabilization project work. A 1990 report by DPR staff asserted that the Ranch's pumping caused the dewatering of the river.

The State Water Board subsequently conducted a field investigation in 1991 to determine whether the Ranch's diversion of water from the Big Sur River was subject to the State Water Board's permitting authority. State Water Board staff determined the Ranch was diverting subterranean streamflow from the alluvium of the Big Sur River and, therefore, the Ranch's diversion was subject to State Water Board permitting authority. Technical studies also supported the State Water Board's conclusion that the Ranch was diverting water from a subterranean stream (Jones & Stokes, 1999).

On April 12, 1992, the State Water Board issued a letter report documenting the investigation conducted by its staff in response to DPR's complaint. This report confirmed DPR's claim that the source of water for the two wells was indeed a subterranean stream, rather than percolating groundwater. The State Water Board concluded, however, based on the terms of the deed of the Molera Parcel, that the Ranch possessed a valid riparian right to use the wells to divert water to a portion of the Ranch. Under a riparian right, water cannot be diverted outside of the watershed or delivered to parcels of land not contiguous to, or not abutting, the watercourse. Due to the topography of the pasturelands, the State Water Board concluded that this right was limited to 90 acres of riparian pastureland owned by the Ranch, with a corresponding total diversion limit of 270 afa. However, the Ranch has identified that riparian portion, in two distinct areas, as totaling 25 acres, not the 90 acres as identified by the State Water Board. Consequently, the State Water Board recommended that the Ranch either cease diversions of water that serve non-riparian land or, alternatively, apply for an appropriative water right that would serve the non-riparian land.

Water Right Application and Protests

On July 10, 1992, the Ranch filed Water Right Application No. 30166 with the State Water Board for an appropriative right to divert 1,800 afa from the PODs for use on the POU described above. On May 25, 1994, the State Water Board issued a notice of the application. By letters dated November 1, 2005, and December 24, 2005, the Ranch amended its application to now seek a maximum direct diversion of 1,615 afa, with a twenty-year rolling average not to exceed 1,200 afa. The maximum rate will not exceed 5.34 cubic feet per second (cfs) on a 30-day

running average and will not exceed 5.84 cfs at any time. In addition the Ranch amended the place of use to include irrigation of any 267 acres within the 292-acre place of use.

Various parties, including DPR, the California Department of Fish and Game (DFG), and the California Sportfishing Protection Alliance (CSPA) submitted protests on the application based on alleged potential injuries to public trust resources. These protests were based on the possible effects of groundwater pumping on the Big Sur River. The alleged effects included reduced river flows and corresponding lowered water levels in the river, saltwater intrusion, and the resulting potential impacts to riparian flora and fauna, especially special-status species (including steelhead, California red-legged frog, and southwestern pond turtle). Additionally, the DPR protest asserted that the quantity of water that the Ranch sought to divert for irrigation was excessive for its intended purpose, citing erosion along the beach that was purportedly due to irrigation runoff.

Previous Technical Studies

In response to the protests, technical studies were implemented by the Ranch to examine the various issues central to the protests. These included site-specific surveys of biological resources (BioSystems Analysis, 1995), an analysis of irrigation water usage needs, and a hydrologic study (Jones and Stokes, 1999). The hydrologic study was used to address questions related to the hydraulic connection between the water pumped by the wells, and the river. The purpose and objectives of this investigation were to characterize the hydrologic regime of the river system and determine the extent to which irrigation pumping from Ranch wells influenced surface flows, depth, and water quality of the Big Sur River, the estuary, or groundwater levels in the Creamery Meadow. The effect of pumping on fisheries, riparian resources, or other flora and fauna was not evaluated at that time. The report concluded that the Ranch's wells pump from a combination of Big Sur River underflow and groundwater; that the groundwater system is highly transmissive and hydraulically connected to the river; and that well pumping by the Ranch does not significantly affect river flow or stage.

Most recently, the Ranch commissioned an additional investigation that, in May 2005, culminated in the report, "*Technical Reports in Support of Water Right Application #30166, El Sur Ranch, Monterey County, California*". Three separate reports were included in this document:

- *Hydrogeologic Investigation and Conceptual Site Model Within the Lower Big Sur River, (May 20, 2005)*
- *Assessment of Habitat Quality & Availability Within the Lower Big Sur River: April – October, 2004, (March 11, 2005)*
- *Reasonable Beneficial Use – Land Use Study for El Sur Ranch Irrigated Pastures, Water Rights Application #30166, (May 18, 2005)*

In 2002, the State Water Board issued a Notice of Preparation for this project, but did not complete an Environmental Impact Report.

State Water Board Authority

The State Water Board has broad discretion to approve, condition, or deny an application to appropriate water. (Wat. Code, § 1200 et seq.) When acting on an application to appropriate water, the State Water Board must consider a number of factors, including whether unappropriated water is available for appropriation, whether the proposed appropriation is in the public interest, and the relative benefit to be derived from all beneficial uses of water as well as the amounts of water needed to remain in the source supply for protection of beneficial uses. (See, e.g., *id.*, §§ 1243- 1243.5, 1253-1255, 1375.)

Additionally, the State Water Board has the responsibility to ensure that the water resources of the State of California are put to beneficial use, and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in the State. (Cal. Const., art. X, § 2; Wat. Code §§ 100, 275.) The State Water Board also has an obligation to consider the effect of the proposed project on public trust resources and to protect those resources where feasible. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419 [189 Cal.Rptr. 346].) The State Water Board may subject a water right appropriation to terms and conditions "as in its judgment will best develop, conserve, and utilize in the public interest the water sought to be appropriated," and each water right permit is issued subject to other terms and conditions. (Wat. Code, §§ 1257, 1382, 1391.)

In determining whether to approve the water right application and under what conditions, the State Water Board will consider the project's potential environmental impacts and any mitigation measures identified through the CEQA process.

Proposed Project

In summary, the proposed project that is being considered for approval by the State Water Board and is analyzed in this Initial Study is Water Right Application No. 30166, as amended December 30, 2005. Through this application, the Ranch seeks to appropriate 1,615 afa year round (January 1 to December 31), with a twenty-year rolling average not to exceed 1200 afa, at a maximum rate not to exceed 5.34 cfs on a 30-day running average and not to exceed 5.84 cfs at any time, from the lower Big Sur River. The method of diversion would be from two existing wells (the Old and New Wells) located on lands deeded to DPR and within Andrew Molera SP. Water would be beneficially put to use for flood irrigation of coastal grasses and legumes within the intended POU; 267 acres of upland Ranch pastures (Assessor Parcel Numbers (APN) 159-011-05 and 159-031-04). Twenty-five acres of the Ranch's riparian lands would not be subject to this water right application.

If the State Water Board approves the full appropriation of 1,615 afa requested in the Ranch's water right application, then the Ranch will have a right to divert that full amount subject to any terms or conditions that the State Water Board imposes. The priority date of the water right would be July 10, 1992. The Ranch would have the right to take and use the amount of water specified in the permit for the approved purposes until a license is issued or until the permit is revoked. The Ranch would have to seek the State Water Board's approval of any changes to the authorized place of use, purpose of use, or points of diversion.

CEQA Project Baseline

In CEQA analyses, potential environmental impacts are assessed against a *baseline* condition. This condition is intended to represent that point, above which, a project's contributory impacts are evaluated. This project involves an existing, but unpermitted, water right activity. Nonetheless, the physical environmental conditions as they exist at the time the notice of preparation is published normally will constitute the baseline. (Cal. Code Regs., tit. 14, § 15125, subd. (a).)

In developing the appropriate CEQA baseline, the State Water Board considered several options and ultimately determined that a baseline based on the Ranch's average annual use over the period of record when both wells were operating would provide an informed basis for the State Water Board to examine the full impacts of the proposed project on the existing environment. In contrast, selecting a single year would have been misrepresentative of historic hydrologic conditions. Accordingly, the State Water Board calculated the Ranch's existing use to be 870 afa by selecting 1983-2002 as the representative period of water use and averaging the Ranch's documented annual water use over this period of time.

The year 1983 was chosen for the beginning of the period because that was the year that both wells (the Old Well and New Well) began operating simultaneously. The year 2002 was chosen as the end of the period because that was the year that the NOP was first issued and for which recent irrigation records are available. The State Water Board determined the baseline to be the Ranch's average annual use over a period of recorded use between 1983 and 2002, when both wells were in operation. While this baseline does not capture the years of lowest water use, those years are less likely to have significant impacts. Averaging water use over this time period most accurately reflects the Ranch's water use over a range of water year types. Thus, the State Water Board will consider the environmental effects of authorizing the increase in diversion from existing use, 870 afa, to the amount sought, 1,615 afa.

The analyses in the following CEQA Initial Study Checklist, Section 5, addresses potential environmental impacts associated with the increment of diversion, between the proposed project (i.e., 1,615 afa) and the baseline (i.e., 870 afa). This baseline is considered a reasonable characterization of the existing condition under which the Ranch is currently diverting at the PODs.

3. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

As discussed in Section 5, the Environmental Checklist examines the proposed project's potential effects on a variety of environmental resources. These resources include Aesthetics; Biological Resources; Hazards and Hazardous Materials; Mineral Resources; Public Services; Utilities and Services; Agricultural Resources; Cultural Resources; Hydrology and Water Quality; Noise; Recreation; Air Quality; Geology and Soils; Land Use; Population and Housing; and Transportation and Traffic. A discussion of the Mandatory Findings of Significance is also included in Section 5.

Based on the findings presented in Section 5, the proposed project may have a significant impact on some of the identified resources checked below.

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology and Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation / Traffic |
| <input type="checkbox"/> Utilities / Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

4. DETERMINATION

This section presents the determination that the State Water Board's Division of Water Rights concluded that, based on the results of the environmental review presented in this Initial Study, the preparation of an EIR is required in order to meet the environmental review requirements for the proposed project under CEQA.

On the basis of this initial evaluation:

- I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR OR NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

James W. Kassel

Signature

for Victoria Whitney, Chief
Division of Water Rights

James W. Kassel

Printed Name

6/1/06

Date

State Water Resources Control Board
(State Water Board)

For *Victoria Whitney*

5. EVALUATION OF ENVIRONMENTAL IMPACTS

Introduction

The following section contains the environmental checklist form. This form is fashioned after that presented in Appendix G of the State CEQA Guidelines. The checklist lists environmental factors potentially affected by the proposed project and identifies whether or not the project will have a significant impact on those factors. Following each determination is an explanation of that determination and, where known, a description of any mitigation measures needed to reduce the level of impact, as appropriate.

The following designations are used in the environmental checklist to describe the level of potential project environmental impacts:

Potentially Significant Impact: An impact that could be significant and for which no feasible and effective mitigation has yet been identified or developed. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant With Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to identified standards.

No Impact: The project would not have an impact.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| 1. AESTHETICS. | | | | |
| <i>Would the project:</i> | | | | |
| a. Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a. - c. Views in and around the proposed project site are of the Big Sur coast to the south and west and the Santa Lucia Mountains to the north and east, with a variety of scenic vistas in nearly every direction. Andrew Molera SP is a common site for photography, nature walks, bird watching, and horseback riding. The Big Sur coast is one of the major points of interest for many residents and tourists enjoying the scenic vistas from Highway 1² and from the park. Most of Highway 1 in Monterey County, including the Ranch project area, is designated a state scenic highway.

The proposed project would authorize the Ranch to divert water from the Big Sur River to a maximum level of 1,615 afa using existing infrastructure. No new infrastructure, construction activities, operational activities, or access routes are proposed. The

2 California Scenic Highway Program website, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed on November 10, 2005.

proposed project would maintain the existing agricultural land uses and would not alter the existing character, aesthetics, and views of the area. Therefore, the proposed project would not result in a substantial adverse effect on a scenic vista, substantially damage scenic resources, or substantially degrade existing visual characteristics of the project site or its surroundings. Accordingly, the proposed project would have **no impact** on aesthetic resources.

- d. As noted above, without any new facilities or alterations to existing structures, no new glare or light sources would be produced. Therefore, there would be **no impact** to either day or night time visual aesthetics resulting from increased glare or light.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| <p>2. AGRICULTURE RESOURCES: <i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</i></p> | | | | |
| <p>a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program in the California Resources Agency, to non-agricultural use?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>c. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a. - c. The proposed project POU is designated either as Prime Farmland, Farmland of Statewide Importance, and Grazing Land according to the California Department of Conservation Farmland Mapping and Monitoring Program and would be consistent with the Monterey County Coastal Zoning Ordinance. The entire POU is designated as Watershed and Scenic Conservation (Coastal Zone) - 40-acre minimum parcel size that allows for agricultural land use activities. The POD areas are designated as Open

Space Recreation (Coastal Zone) and allow for outdoor recreation uses. The proposed project would not result in the conversion of current land uses (i.e., cattle ranching and pasture irrigation) to nonagricultural uses or other uses inconsistent with land uses designated in the Monterey County General Plan or Zoning Ordinance for the POU and POD. In fact, the proposed project seeks to maintain historic and current agricultural/cattle grazing practices.

Additionally, the proposed project POD and POU areas are not designated as lands under the Williamson Act. Therefore, the proposed project would have ***no impact*** to agricultural land uses.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| 3. AIR QUALITY. | | | | |
| Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations: | | | | |
| <i>Would the project:</i> | | | | |
| a. Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a. - c. The project area is located in the North Central Coast Air Basin (NCCAB), managed by the Monterey Bay Unified Air Pollution Control District. The NCCAB currently violates the State 24-hour and annual average PM₁₀ standards. The region is not designated as non-attainment for any criteria pollutant under federal standards.

The proposed project does not involve the construction of new facilities or require other construction activities. The project would not alter current operational activities or require an increase in the number of worker vehicles at the project site. No anticipated changes in visitor use at Andrew Molera SP are expected as a result of the proposed project. Accordingly, vehicular traffic levels would remain unchanged from current levels.

The proposed project would not conflict with, or obstruct the implementation of any applicable air quality plan, violate any air quality standards, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment. **No impact.**

- d.e. As noted, the proposed project would not result in any new construction or changes in existing operational activities. The proposed project, which involves pumping from wells contained in enclosed structures and irrigation of pastureland, would not emit substantial pollutant concentrations or create objectionable odors affecting a substantial number of people. Accordingly, the proposed project would have **no impact** on sensitive receptors nor would it generate any objectionable odors.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| 4. BIOLOGICAL RESOURCES. | | | | |
| <i>Would the project:</i> | | | | |
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ■ | □ | □ | □ |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ■ | □ | □ | □ |
| c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ■ | □ | □ | □ |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites? | ■ | □ | □ | □ |
| e. Conflict with any local policies or | ■ | □ | □ | □ |

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| ordinances protecting biological resources, such as a tree preservation policy or ordinance? | | | | |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan? | ■ | □ | □ | □ |

Discussion

a. - b. *Overview of Sensitive Species and Habitat*

The Big Sur River drains an approximate 58 square-mile watershed that is mostly contained within Los Padres National Forest and, therefore, generally undeveloped. The project area, being located within the Big Sur River watershed, contains riparian, wildlife, and aquatic habitat. Riparian vegetation in good ecological condition provides favorable environmental conditions and supports a tremendous diversity and abundance of wildlife and aquatic life. Excessive pumping of underflow associated with this project potentially may have a detrimental effect on the ecological health of the riparian vegetation in the Big Sur River watershed, and to the sensitive wildlife and aquatic life that are dependent on this riparian habitat for breeding/spawning, nesting, rearing, foraging, and migrating.

The presence of sensitive, and listed species, as defined under the California and federal Endangered Species Acts, has been documented in the California Natural Diversity Database (CNDDDB). Searches of the CNDDDB in 2004 and 2005 indicate that several listed species of flora and fauna known to inhabit, or have the potential to inhabit, the project area (inclusive of both the POD and POU) could potentially be impacted by project operations. These species include but are not limited to:

Flora

- Adobe sanicle (*Sanicula maritime*), California Rare
- Central dune scrub and California oatgrass grassland, sensitive natural communities of high inventory priority to DFG
- Dudley's lousewort (*Pedicularia dudleyi*), California Rare
- Fragrant fritillary (*Fritellaria lilicea*)
- Hutchinson's larkspur (*Delphinium hutchinsoniae*)
- Little Sur manzanita (*Arcotostaphylos edmundsii*), of which the form found in the area (*parvifolia*) is Rare
- Maple-leaved checkerbloom (*Sidalcea malachroides*)
- Monterey paintbrush (*Castilleja latifolia*)
- Yadon's rein orchid (*Piperia yadonii*), federally Endangered

Riparian ecosystems are dynamic and complex environments; they support a balanced relationship between river hydrology, local climate conditions, channel morphometry and substrate character, nearshore and instream vegetation (including woody debris), canopy structure, ephemeral tributaries, backwater ponds, and the species that depend on those relationships. In California, riparian habitats are considered sensitive by DFG. Further, riparian habitats have been enhanced or given protection, in part, because of the listing of some fish species under the Endangered Species Act.

Riparian habitat, from the Andrew Molera SP parking area downstream along the Big Sur River, is well developed with mature willow (*Salix* spp), western sycamore (*Platanus racemosa*), coast live oak (*Quercus agrifolia*), and alder (*Alnus* spp). The understory areas contain a mix of native blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), non-native grasses, and other shrubby plants. Upland habitats support either coastal sage scrub on the

ocean bluffs or, a mix of coyote bush (*Baccharis pilularis*), French broom (*Cytisus monspessulanus*), non-native grasses, sweet fennel (*Foeniculum vulgare*), and thistles are found on the upland edges of the riparian habitat. While estimates of vegetative cover by broad categories have been made, no detailed botanical species surveys have yet been prepared to characterize the nature of these species, their abundance, specific locations, and habitat conditions/vitality.

Fauna

- American badger (*Taxidea taxus*), California species of special concern
- Black swift (*Cypseloides niger*), California species of special concern
- Monarch butterfly (*Danaus plesippus*), wintering sites
- Prairie falcon (*Falco mexicanus*), California species of special concern
- Smith's blue butterfly (*Euphilotes enoptes smithii*), federally Endangered

Nesting habitat for sensitive birds like yellow warblers (*Dendroica petechia*), a California species of special concern, and saltmarsh common yellowthroats (*Geothlypis trichas sinuosa*) can also be found within the riparian habitat of the Big Sur watershed, as can Monterey dusky footed-woodrat (*Neotoma macrotis luciana*) nests, a DFG species of concern.

A recent query of the CNDDDB for the USGS Big Sur 7.5-minute Quadrangle and the surrounding seven Quadrangles (Soberanes Pt., Mt. Carmel, Carmel Valley, Ventana Cones, Point Sur, Pfeiffer Pt, and Partington Ridge) has resulted in a list of 42 sensitive species and habitats.³ Of these, five species and one habitat are closely tied to

3 California Natural Diversity Database. 2005. RareFind software, Commercial Version 3.0.5. Information dated July 1, 2005.

aquatic habitats that may be affected by the proposed project. The aquatic species reported by the database include:

- California red-legged frog (*Rana aurora draytonii*), federally Threatened and California species of concern,
- California tiger salamander (*Ambystoma californiense*), federally Threatened and California species of concern,
- Coast range newt (*Taricha torosa torosa*), California species of concern,
- Double-crested cormorant, (*Phalacrocorax auritus*), California species of concern,
- North Central Coast Fall-Run Steelhead Stream sensitive habitat,
- Southwestern pond turtle (*Emy pallida marmorata*),
- Steelhead (*Oncorhynchus mykiss iride*), federally Threatened
- Tufted puffin (*Fratercula cirrhata*), California species of concern,
- Western snowy plover, (*Charadrius alexandrinus nivasus*), federally Threatened and California species of concern

Fishery species and habitat studies

In the summer and fall of 2004, a detailed study, focusing on steelhead/rainbow trout was conducted characterizing the instream habitat of the lower Big Sur River.⁴ At the same time, fish surveys revealed the presence of threespine stickleback (*Gasterosteus aculeatus*) and riffle sculpin (*Cottus gulosus*). Tidewater goby and coho salmon, both listed for protection under the federal Endangered Species Act were not observed. Steelhead was observed within the river throughout the study period. A total of 358 juvenile steelhead/rainbow trout

⁴ Hanson Environmental Inc., 2005. Assessment of habitat quality & availability within the lower Big Sur River: April – October 2004. Prepared for El Sur Ranch.

were observed during an October 2004 survey compared to 417 observed during an earlier July survey. Juvenile rearing steelhead/rainbow trout were observed inhabiting all of the survey reaches (8 in total) during both the July and October surveys. The highest densities were observed within the lagoon (65% and 88% of the observations occurred here, for the July and October surveys, respectively) and within an upstream reach; the latter characterized by large woody debris and significant shaded riverine instream cover.

In general, the study concluded that for the 2004 study year: streamflows were sufficient to maintain habitat connectivity; summer baseflows were sufficient to provide suitable physical habitat for juvenile steelhead/rainbow trout rearing; water quality conditions were deemed suitable for juvenile steelhead/rainbow trout rearing. A fundamental premise for this investigation was that steelhead/rainbow trout were assumed to represent an appropriate indicator species. For the fishery assessment, this was appropriate. However, it is not appropriate to state that the juvenile steelhead/rainbow trout study findings are representative of all other wildlife species, sensitive or otherwise.

The fisheries analyses were based on recent data collected during the 2004 irrigation season. The analytical results for juvenile steelhead/rainbow trout were based on several evaluation methodologies including lagoon fisheries habitat surveys, a consideration of summer time flows, habitat characteristics and connectivity, water quality correlation (including the parameters of water temperature, electrical conductivity, and dissolved oxygen). Instream surveys were also conducted to document abundance, survival, growth, and spatial distribution. Again, this was primarily limited to juvenile steelhead/rainbow trout. While the two surveys' dates covered the two well operating scenarios (e.g., one well versus two wells operating), natural changes in river dynamics (i.e., sand bar formation at the mouth) complicated the evaluation of the relationship between irrigation pumping and fishery habitat.

The conclusions of the fisheries analysis were based largely on field observations correlated against temporally coincident hydrologic metrics.

Resource agencies have requested additional studies to determine the impacts this project may have on fish and on wildlife. Specifically, because aquatic habitat availability, and hence, fisheries health, is directly correlated to instream flows, the agencies request a water availability analysis and a water budget that addresses water consumption in the watershed, and a fisheries flow analysis, acceptable to DFG and NMFS, that defines and proposes flow reservations to maintain long-term sustainability of various trust resources dependent on the Big Sur riverine environment.

The interactive relationships between the proposed project and the breadth of the species inhabiting the Big Sur River watershed ecosystem (e.g., instream riverine, riparian shoreline, uplands, etc.) has not yet been fully identified. The impacts of the proposed project to native species and, in particular sensitive listed species, as defined by both the California and federal Endangered Species Acts, and associated habitat is ***potentially significant*** based on the following:

- (1) The corroborated presence of federal and state-listed, sensitive flora and fauna species that are known to inhabit or have the potential to inhabit the project area;
- (2) Concerns and requests for additional information by resource agencies, including DFG and the National Oceanic and Atmospheric Administration/National Marine Fisheries Service (NOAA/NMFS), who are concerned about listed sensitive species and native species;
- (3) Preliminary field studies suggest the potential for adverse environmental impacts to biological resources within the project area;
- (4) Groundwater pumping, in theory, has the potential to affect sensitive biological habitat, such as the biological habitat within and surrounding the project area, because:
 - pumping of groundwater and underflow of the Big Sur River can reduce underflow and groundwater levels that sustain flora and fauna, particularly the riparian obligates that rely on these wet zones;

- excessive pumping can facilitate saltwater intrusion and change the natural composition of freshwater and brackish water in the river and estuary, reduce habitat area for fish such as the Tidewater goby, a federally endangered fish that lives in estuaries and lagoons along the California coast from Del Norte to northern San Diego counties. Juvenile steelhead can suffer stress by entering the smoltification process prematurely when exposed to abrupt changes in salinity, as they migrate from the Big Sur River, through the estuary, and to the Pacific Ocean;
- saltwater intrusion into the Big Sur River can diminish the diversity and abundance of native riparian vegetation, as dominant saline-tolerant vegetation takes over. Canopy cover can be reduced and instream water temperature can increase which can be harmful to instream aquatic species;
- riparian obligates such as the Monarch butterfly, Southwestern Pond turtle, Western Pond turtle, steelhead, California tiger salamander, federally threatened California red-legged frog, Yellow warbler, and tri-colored blackbird require riparian zones to support some part or all of their life stages. For instance, riparian obligate birds place greater than 90 percent of their nests in riparian vegetation, or greater than 90 percent of their abundance occurs in riparian vegetation during the breeding season. They may forage outside the riparian zone, but the presence of these species will not occur without riparian zones in good ecological condition.

Therefore, pumping can have a deleterious and potentially significant impact on the native and listed flora and fauna that inhabit the Creamery Meadow and Big Sur River riparian zones and the Big Sur River Estuary.

The potential alteration or degradation of riparian habitats is an important consideration in assessing ecosystem health and vitality. Without such assessment, the proposed project may have a **potentially significant impact** on any element of the riparian system. These impacts could be mitigated by implementing a monitoring plan and requiring pumping restrictions when certain thresholds, such as salinity levels, are met during certain hydrologic year types.

- c. Under the proposed project, increasing quantities of irrigation water, relative to the baseline, would be applied to the pastures potentially resulting in increased surface runoff to Swiss Canyon and possibly onto State Park property. The Swiss Canyon drainage runs between the pastures and discharges water directly to the ocean. According to the DPR complaint, there is erosion across the ocean beach from the ephemeral stream during and after irrigation events. The ephemeral creek appears to support riparian habitat, but it is unknown if this area also supports wetlands, marshes, coastal estuarine systems, related sensitive species, and/or their habitats.

No detailed field surveys have yet been completed to characterize the current existing condition within Swiss Canyon related to lands applicable under Section 404 of the Clean Water Act or, related species and habitats. The documented presence of listed species in the area, however, along with the geomorphic character of the canyon as a drainage way (i.e., conducive to water accumulation and conveyance) suggest a sensitive area that could support lands under Section 404 of the Clean Water Act. Project-induced surface runoff has the potential to substantially adversely affect the riparian system within Swiss Canyon. In addition, as discussed in the DPR complaint, the potential exists for flooding of State Park trails during and after irrigation events. Accordingly, until such time as further documentation can attest to the actual conditions present on site, this represents a **potentially significant impact**. This impact could be mitigated by erosion control methods such as placement of wattles to reduce runoff or construction of a tail-water recovery system.

- d. A recent study indicated that the Big Sur River and lagoon can remain hydrologically connected, at least as exhibited during the 2004 investigation year. This discovery implied continuous habitat connectivity where no physical disruptions in migration would have occurred. Habitat connectivity, in the context of species migration is important

since it avoids the potential risk of fish stranding in isolated pools and backwater areas. The Big Sur River flows over a gravel and cobble bed with finer sediments being found in the bottoms of larger pools. Upstream of the confluence with the ocean, the river forms a lagoon as the outfall is partially constricted by a sandbar. The lagoon is intermittently affected by tidal action and receives salt-water during high tides and storm events that overtop the sand bar. On occasion, the sandbar closes across the river mouth. This is a natural phenomenon and temporary. However, reduced flow from pumping and resulting salinity changes could interfere substantially with the movement of steelhead and native resident fish, and could impede the use of wildlife nursery sites in the Big Sur River and the Big Sur River Estuary. Therefore, the proposed project may have a **potentially significant impact** on the movement of wildlife or fish, in particular steelhead acclimation to abrupt or excessive saline conditions before swimming to the Pacific Ocean, and could impede the natural functioning of the estuary. These impacts could, however, be mitigated by complying with a water quality monitoring plan that imposes pumping restrictions when certain thresholds, such as salinity levels, are met during certain hydrologic year types. Monitoring reports would also be prepared and submitted to the State Water Board as required.

- e.f. The project area is not within an area covered by an adopted habitat conservation plan or, a natural community conservation plan. The Lower Big Sur River Protected Waterway Management Plan (April 1986) seeks to maintain and enhance the river as a fish and wildlife habitat. Therefore, to the extent the proposed project adversely affects the instream and riparian habitat, as discussed above, it will conflict with plans or policies relating to biological resources and, at this point, should be considered a **potentially significant impact**. As noted above, these impacts are mitigable.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| 5. CULTURAL RESOURCES. | | | | |
| <i>Would the project:</i> | | | | |
| a. Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Directly or indirectly destroy a unique paleontological resource or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Disturb any human remains, including those interred outside of formal cemeteries. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a.d. The existing pumps, pipelines, and associated irrigation infrastructure, already in place, will facilitate the delivery of this water supply. No new construction is proposed. Accordingly, the proposed project would not result in any change to existing land uses that might require disturbance of ground surfaces, grading, or below ground construction work. While no detailed cultural, archaeological, or historical review has been completed, without any contemplated ground disturbance activities, it is likely that the proposed project would have **no impact** on cultural resources.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|-------------------------------------|--|-------------------------------------|-------------------------------------|
| 6. GEOLOGY AND SOILS. | | | | |
| <i>Would the project:</i> | | | | |
| a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| a.i. Rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| a.ii. Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| a.iii. Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| a.iv. Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Result in substantial soil erosion, or the loss of topsoil? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5. Evaluation of Environmental Impacts

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a.i.- iii. The Alquist - Priolo Earthquake Fault Zoning Map does not identify any active or known earthquake faults in the project area. The closest faults identified are the significant San Benito faults on the eastern slopes of the Santa Lucia Mountains to the east and the small Piedras Blancas fault at San Simeon to the south. The proposed project would not expose people or property to increased risks from earthquakes. Accordingly, the project would have **no impact**.

a.iv. The PODs are located on the flat alluvial deposits that represent the floodplain of the lower Big Sur River. Topography is low, and unconducive to catastrophic mass wasting events such as landslides. While there is historic evidence of landslides along the steeper slopes of the Quaternary alluvium of the upland terraces, these are over 1,000 feet away to the northeast of the PODs. Therefore, the proposed project would not increase the exposure of persons or property to landslides. **No impact**.

b. The proposed project would result in an increase in the total amount of water delivered to the POU. Approximately 85% of the POU is mapped as soil of the Santa Ynez series. Representative profiles of the Santa Ynez soils exhibit a surficial layer of fine sandy loams to 18-inches in depth; underlain by a clay layer at 26-36-inches in depth. These soils have a low permeability and a slow percolation rate, and thus, have a moderate runoff potential and erosion hazard.

A maximum of 1,615 afa of water would be used on 267 acres, equating to 6 acre-feet (af) per acre annually. Given the existing soil conditions, a significant portion of the water made available would need to be offset by annual evapotranspiration and crop uptake totals, or surface ponding and runoff would occur. This runoff does appear to occur since the DPR protest claims that during irrigation periods, surface water flows

across the pastures causing erosion and sometimes flooding State Park trails, which are outside the POU.

Swiss Canyon is an incised drainage channel with some exposed soils and is accessible to cattle. Exposed soils together with cattle access could substantially exacerbate bank erosion and soil instability. With the physical degradation of the soil structure by animal traffic, there is therefore a potential increase of soil erosion in Swiss Canyon due to irrigation practices.

The proposed project could have a ***potentially significant impact*** to soil erosion in Swiss Canyon, at the edges of the POU and areas outside the POU. This impact could be mitigated by erosion control methods such as placements of wattles to reduce runoff or construction of a tail water recovery system.

- c. The POU of the project is located primarily on an alluvial terrace and, to a lesser extent, on rocks of the Franciscan Formation. The PODs are located in alluvium that consists of sands, gravels, and cobbles. Although the Franciscan Formation is prone to landslides in certain areas, a landslide is unlikely to occur within the POU since the Franciscan Formation outcrops in a relatively small area near the beach. These geologic units would not become unstable as a result of the project and it is unlikely that it would result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Therefore, the project would have a ***less-than-significant impact***.
- d. The proposed project does not involve construction of additional structures. Moreover, no expansive soils exist on the project site. The proposed project would not create substantial risks to life or property. ***No impact***.
- e. The proposed project does not involve soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems. The proposed project does not involve construction of septic tanks or sewer facilities, or the generation of wastewater. ***No impact***.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| <p>7. HAZARDS AND HAZARDOUS MATERIALS.</p> | | | | |
| <p><i>Would the project:</i></p> | | | | |
| <p>a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5. Evaluation of Environmental Impacts

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| project area? | | | | |
| f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a.b.c. The proposed project would not use, transport, or store hazardous materials, nor would it expose persons or the environment to risks associated with hazardous materials above current (i.e., baseline) uses. Currently, hazardous materials are used in small quantities to maintain the pumps (e.g., lubricants, oils, grease, etc.). The pumps themselves are contained within buildings where the risk of any hazardous materials release to the environment is minimal. Without any construction activity, no heavy equipment, worker vehicles, or construction-grade materials (e.g., sealants, dust abatement oils, etc.) would be necessary. Accordingly, the proposed project would have **no impact** regarding the use, storage, transport, or exposure to hazardous materials.
- d. The project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.⁵ There are no underground or above ground

⁵ California Department of Toxic Substances Control, Hazardous Materials Sites Database, on website: <http://www.dtsc.ca.gov/database/Calsites/calif002.cfm>. California State Water Resources Control Board, GeoTracker, on

storage tanks on site. Moreover, there are no deed restrictions or environmental protection liens recorded for the property that indicate the site had been subject to any cleanup orders imposed by a federal, State, or local agency. From a hazardous materials site perspective, implementation of the proposed project would have ***no impact***.

- e.f. There are no public or private airports within two miles of the project site. Therefore, the project would impart ***no impact*** to any airport facility, their staff, or passengers.
- g. The major evacuation route for the Big Sur Coast in the vicinity of the proposed project is State Highway 1. The proposed project would not alter the design or geometrics of State Highway 1 or, any public roads with ingress or egress to State Highway 1. The proposed project, from a vehicular traffic perspective, is benign; no new facilities, roads, or activities are proposed that would alter, impede, or otherwise impair vehicle movement. Therefore, implementation of the proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan and would have ***no impact*** in this regard.
- h. The proposed project is located in an area of Monterey County that is undeveloped and adjacent to large areas of native grasslands in the Santa Lucia Mountains. No residences are located within the POU or at the POD sites. Such grasslands are, however, susceptible to wildfires during the summer months. This risk is increased under drought conditions when antecedent moisture conditions are extremely low. Furthermore, the risk of wildfire spreading is increased with high winds; a characteristic climatic feature of the Big Sur coast. Any such risks could, however, be reduced by the proposed project itself; where, flood irrigation would, by design, maintain moisture conditions suitable to sustain field crops (e.g., grasses and legumes) and, the presence of grazing cattle would help control excessive fuel levels on these pastures.

website: <http://www.geotracker.swrcb.ca.gov>. California State Water Resources Control Board, Enforcement Order Document Search, on website at: http://www.swrcb.ca.gov/enforcement/docs/ind/search_orders.html. California State Water Resources Control Board, Leaking Underground Storage Tanks, on website: http://www.swrcb.ca.gov/rwqcb5/available_documents/ug_tanks/LUST.pdf. California State Water Resources Control Board, Solid Waste Information System (SWIS), on website: <http://www.ciwmb.ca.gov/SWIS/>. All websites were accessed on November 10, 2005.

The proposed project would not develop new structures, change existing operations, nor would it result in attracting additional people to the Big Sur coast. No additional risks of or, exposure of people to wildland fire hazards would result from the project. Accordingly, the proposed project would have **no impact** on existing wildland fire risks or conditions.

5. Evaluation of Environmental Impacts

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|-------------------------------------|--|------------------------------|-------------------------------------|
| 8. HYDROLOGY AND WATER QUALITY | | | | |
| <i>Would the project:</i> | | | | |
| a. Violate any: | | | | |
| i. Waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii. Water quality objectives? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Substantially deplete groundwater or surface water, or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Create or contribute runoff water | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5. Evaluation of Environmental Impacts

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | | | | |
| f. Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Place within a 100-year floodplain structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| j. Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a.i. Waste Discharge Requirements: There are no waste discharge requirements associated with the project, therefore, the proposed project would have ***no impact*** on waste discharge requirements.

a.ii.f. Groundwater and Surface Water Quality Objectives: The Central Coast Regional Water Quality Control Board (Regional Water Board) regulates water quality in the project area. The 1994 Water Quality Control Plan for the Central Coast Basin (Basin Plan) identifies

the beneficial uses⁶ and water quality objectives for the region. The Regional Water Board has identified numeric water quality objectives for Total Dissolved Solids (TDS) (200 micrograms per liter (mg/L)) and chloride (20 mg/L) to protect Big Sur River surface water quality and applicable beneficial uses.

The proposed project does not involve construction of any facilities in or adjacent to the Big Sur River that would affect water quality. No instream or embankment activities are proposed that could directly affect Big Sur River water quality objectives.

However, project pumping operations potentially may affect water quality and beneficial uses. A recent study has generally affirmed the existence of a saltwater wedge beneath the stream underflow with direct connection to the ocean. The dynamics of how this wedge continually changes is complex, but thought to be controlled by the combined effects of well pumping, river discharge, depth and shape of the ancestral canyon bottom, and tidal influences. Density driven saline water constantly responds to these factors and can migrate beneath the alluvial aquifer underlying the river for considerable distances inland (e.g., distance to the Old Well). Saltwater intrusion brought on by groundwater pumping, particularly if pumping is excessive, may have an adverse affect on water quality of the underflow of the Big Sur River and disturb natural salinity conditions in the Big Sur River Estuary.

The 2004 field results presented in Assessment of Habitat Quality and Availability within the Lower Big Sur River: April - October 2004 (Hanson, 2005), concluded that water temperatures, electrical conductivity and dissolved oxygen were within the ranges considered to be suitable for juvenile steelhead rearing. As discussed below, there are concerns over the adequacy of this study and therefore these conclusions may not hold up under further analysis.

⁶ Big Sur River: Municipal and Domestic Supply, Agricultural Supply, Groundwater Recharge, Water Contact Recreation 1, Water Contact Recreation 2, Wildlife Habitat, Cold Freshwater Habitat, Warm Freshwater Habitat, Migration, Spawning, Preservation of Biological Habitats of Special Significance, Rare Threatened or Endangered Species, Freshwater Replenishment, Commercial Fishing.

Big Sur River Estuary: Water Contact Recreation 1, Water Contact Recreation 2, Wildlife Habitat, Cold Freshwater Habitat, Warm Freshwater Habitat, Migration, Spawning, Preservation of Biological Habitats of Special Significance, Rare Threatened or Endangered Species, Estuary Habitat, Commercial Fishing, Shellfish Harvesting.

Reduced dissolved oxygen (below 6 mg/L) would represent a potentially adverse effect to juvenile steelhead rearing. Localized reductions of dissolved oxygen were observed below the 6 mg/L level near the Creamery Meadow and were hypothesized to be due to upwelling of groundwater in the area. These reduced dissolved oxygen levels appear to be unrelated to the project. The amount of groundwater upwelling could be reduced as a result of operation of the project. The groundwater upwelling near the Creamery meadow was observed to have low dissolved oxygen, low temperature, and low electrical conductivity. A reduction of this groundwater upwelling would therefore have a positive impact to dissolved oxygen levels and a corresponding negative impact on temperature and electrical conductivity.

Accordingly, the proposed project may have potential water quality effects on biological beneficial uses, which have been discussed in the previous Biological Resources section. The biological beneficial uses that may be impacted are wildlife habitat; cold freshwater habitat; warm freshwater habitat; migration; spawning; preservation of biological habitats of special significance; rare, threatened or endangered species; freshwater replenishment and estuary habitat.

To protect water quality, the Ranch currently must comply with the DPR easement condition that may prohibit pumping of the New Well when chloride concentrations (as measured as electrical conductivity) exceed specific thresholds. When electrical conductivity is above 1.0 mmhos/cm, the Ranch must perform additional analysis to determine if the chloride concentration exceeds 250 ppm. In the event that the chloride concentrations exceed 250 ppm, DPR may require the Ranch to terminate pumping until chloride concentration in the New Well is reduced. According to the Ranch, it typically stops pumping the Old Well voluntarily when salinity levels reach 1.0 mmho/cm.

These current operational measures may not be adequate to protect the designated beneficial uses⁷. Therefore, the project's operation may have a ***potentially significant***

⁷ Big Sur River: Municipal and Domestic Supply, Agricultural Supply, Groundwater Recharge, Water Contact Recreation 1, Water Contact Recreation 2, Wildlife Habitat, Cold Freshwater Habitat, Warm Freshwater Habitat, Migration, Spawning, Preservation of Biological Habitats of Special Significance, Rare Threatened or Endangered Species,

impact on the designated beneficial uses and water quality objectives. This impact could be mitigated by requiring the applicant to consult with the Regional Water Board and implement required measures to protect water quality. The applicant may be required to reduce or cease pumping when certain criteria are met.

- b. Previous documentation confirm that the highly transmissive nature of the gravelly alluvial deposits that characterize the surficial geology of the lower Big Sur River imply a close connection between the river and the underlying groundwater. This is evidenced by the near synchronous response of both river stage and groundwater levels following precipitation events both, on the rising and recession limbs of the hydrographs. It is reasonable to assume a hydraulic connection between the river and the unconfined aquifer. Despite this comparable response, the most recent study indicated that the ability of the irrigation pumps to measurably affect river stage remains inconclusive, yet there was no noticeable effect on surface water elevations when both pumps were turned off for the season in 2004. This suggests that, while the surface and subsurface water sources may indeed be closely associated and responsive to each other, the magnitude of any withdrawals (via pumping) are exceeded by the flux of groundwater recharge or upwelling to the river.

The wells are situated at the lower end (down gradient) of the alluvial aquifer underlying the lower reaches of the Big Sur River. As previously noted, other than the Navy Well, no other groundwater wells, used by other parties, exist down gradient from the project's well facilities. The groundwater wells in the vicinity of the Old and New Wells have shown instantaneous responsiveness to pumping by the Ranch. It is unlikely, based on hydrogeologic principles, to assume that groundwater well levels within the Creamery Meadow or, further up gradient towards the park, would be adversely affected by project pumping.

Freshwater Replenishment, Commercial Fishing.
Big Sur River Estuary: Water Contact Recreation 1, Water Contact Recreation 2, Wildlife Habitat, Cold Freshwater Habitat, Warm Freshwater Habitat, Migration, Spawning, Preservation of Biological Habitats of Special Significance, Rare Threatened or Endangered Species, Estuary Habitat, Commercial Fishing, Shellfish Harvesting.

During the 2004 study, a total of approximately 1,136 af was pumped by the Ranch (spanning a total pumping period of 178 days). This equated to an average mean daily total pumping rate of 3.3 cfs; the maximum daily total pumping rate recorded was 6.06 cfs. The median over this period, however, was approximately 2.68 cfs. The proposed project seeks to divert a maximum rate not to exceed 5.34 cubic feet per second (cfs) on a 30-day running average and not to exceed 5.84 cfs at any time, from the lower Big Sur River. The 2004 study results provided by the Ranch do not, however, disclose the effect that maximum project pumping, at a rate of 5.84 cfs and diverting the entire requested allocation of 1,615 afa, would have on the Big Sur River system and biological resources, in particular during dry and critically dry years. The requested maximum rate of pumping is nearly double what the Ranch typically pumps and nearly double the median and minimum rates identified during the 2004 study period.

Diverting a high percentage of flow from the Lower Big Sur river, particularly during dry and critically dry periods, could likely cause a significant change in river stage and flow because, unlike direct surface water diversion where all flows are diverted at one location, stream depletion from pumping is spatially cumulative so the measurement of surface water levels changes at a static location reflects only a portion of the total stream loss. Taken over a larger stream segment, stream depletion losses can be significant.

Reduced dissolved oxygen levels that were measured near the Creamery Meadow appear to be naturally occurring and, therefore, unrelated to the project. Though project pumping operations could reduce groundwater upwelling that would have a positive impact on dissolved oxygen levels and instream aquatic life in the river; however, groundwater pumping would have a corresponding negative impact on temperature and electrical conductivity.

Pumping at the requested maximum rate could also cause an upstream advancement of the known saltwater wedge that exists beneath the Big Sur River underflow and that has direct connection to the Pacific Ocean.

The identified hydrologic relationships and impact evaluations developed from the 2004 study year are not likely to be fully representative of what the proposed project's impacts are if the applicant pumps and diverts the maximum amounts and at the maximum rates requested. In a water short year such as 2004, the potential adverse effects on the Big Sur River system and biological resources could very likely be adversely impacted.

Therefore, possible environmental impacts of proposed project pumping on the Big Sur River system and biological resources needs to be adequately and fully assessed and the impacts of pumping on these resources identified. Therefore, these impacts should be considered **potentially significant**, based upon the available information the Applicant has provided to date. These impacts potentially could be mitigated by implementing a monitoring plan and requiring pumping rate and quantity restrictions during certain hydrologic year types, such as dry and critically dry hydrologic years, and when certain thresholds, such as salinity levels, are met during certain hydrologic year types.

- c.d. The proposed project will deliver water to the upland pastures for flood irrigation. There is no intention to alter the alignment, configuration, or character of the lower Big Sur River. The proposed project will not alter stream drainage.

The Ranch has a collection basin at the downgradient end of Pasture 6 abutting the northwest corner of the Pump House Field. Tail-water from the upland pastures are collected in this basin and discharged to the ocean by direct pipeline. The collection basin may not operate efficiently since the DPR claims that their trails get flooded during and after irrigation events and that the current irrigation practices cause erosion across the ocean beach. Moreover, a similar collection basin does not exist for the pasture area west of Swiss Canyon, thereby increasing the potential for on and off site erosion and flooding in this area. Therefore, these impacts should be considered **potentially significant**. However, with proper mitigation measures, the proposed project could have a **less-than-significant impact** on on- or off-site erosion or flooding. A potential mitigation measure would be construction of an effective tail-water recovery system.

- e. The project is not tied to any stormwater drainage system. Accordingly, there would be **no impact** since the project would not contribute water that would exceed the capacity of a stormwater system or provide additional sources of polluted runoff.
- f. The proposed project potentially may affect the domestic water supply beneficial uses. One existing downstream diversion, the Navy well, has the potential to be adversely affected by a change in water quality, namely increased saline intrusion brought about by project operations. The DPR, however, has stated that the well is failing and that it intends to abandon the well. In April 2006, DPR issued an Initial Study and Mitigated Negative Declaration analyzing, in part, the environmental impacts of its proposed water supply project. Thus, the project would have **no impact**.
- g. The proposed project does not involve the construction of any new facilities. No housing structures are associated with the project. Accordingly, there would be **no impact** to housing as a result of flooding risks.
- h. The PODs are situated within the alluvial floodplain of the lower Big Sur River; with the New Well sitting at a lower elevation. The structures are small in size (see Figures 3 and 4) and would unlikely have the capability to impede or redirect flood flows, even of significant magnitudes. Based on historical flow records of the Big Sur River at the upriver USGS Gage, maximum flows would be largely dispersed over the Creamery Meadow as the channel overtopped its banks. Even under these extreme conditions, the PODs simply do not have the footprint size footprint capable of impeding or otherwise redirecting flood flows. Of greater concern would be the potential damage caused to these structures by annual flood events. The proposed project would have **no impact** on impeding or redirecting flood flows.
- i. The PODs are not permanently inhabited, nor do persons visit them on a significant basis. As housings for the wellhead and pumps, these facilities are visited for routine operations and maintenance work. Such visits, however, are infrequent and, of short duration. There is no significant risk of flooding. Accordingly, this would be a **less-than-significant impact**.

- j. The project area containing the PODs is situated north of the lagoon. These well sites are situated in low lying areas (New Well Top of Casing at 12.6 ft msl) and would be in the direct line of advance of a tsunami, if one were to come ashore along this area of the Big Sur coast. The lagoon and overwash berm would do little to retard the focused channeling of a large tsunami headwall migrating up the constricted mouth of the Big Sur River. A tsunami with a surgewall of 25 feet would almost certainly inundate the PODs and, likely cause damage to the structures and wellhead housing. By contrast, the POU is situated on higher elevation pasturelands to the north. It is unlikely that these areas would be inundated by a tsunami.

Quantitative prediction of a tsunami, however, even in the highly active Pacific Rim cannot be made with existing technology. Therefore, the threat of a tsunami and any project-related impacts are highly speculative. Moreover, the proposed project would not expose people or housing to inundation by tsunami. Any damage would be limited to the PODs, which are solely used for irrigation purposes. There is a **less-than-significant impact** arising from inundation by tsunami.

Seiches are typically confined to enclosed bodies of water (e.g., lakes and reservoirs) and are caused when a catastrophic displacement of water occurs along one shoreline (e.g., triggered most commonly by a seismically induced landslide). Seiches are not found along ocean coastlines. Accordingly, there is **no impact** risk from seiches.

The PODs are situated on alluvial fill that represent the floodplain of the Big Sur River in the lower watershed near the river's mouth. While there are signs of historic mass wasting events, including mudflows along portions of the terrace embankment to the northeast, no such historic evidence exists within the alluvial fill area. The soil characteristics of this alluvial zone and the gentle gradients are not conducive to mudflows. Accordingly, the risk of mudflows can be considered a **less-than-significant impact**.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| 9. LAND USE AND PLANNING. | | | | |
| <i>Would the project:</i> | | | | |
| a. Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating on environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a. The proposed project POU and POD are currently located within unincorporated portions of Monterey County. The POU is located along the shore to the south and bordered by Highway 1 to the north, Andrew Molera SP to the east, and other private undeveloped land to the west. The POD is located within Andrew Molera SP. There are no developed or established residential communities within the surrounding area and the proposed project would not divide an established community. Therefore, there would be **no impact**.
- b. The Monterey County General Plan serves as the principal land use planning document guiding growth within Monterey County. The General Plan Land Use map designates land uses in the POU's Watershed and Scenic Conservation and the POD as Outdoor Recreation. The Big Sur Coast Land Use Plan (BSLUP) is the key planning document for the Big Sur Coast segment of Monterey County's Local Coastal Program (LCP). The BSLUP, a primary component of the County's certified LCP, provides development

standards for land within the California Coastal Zone. The BSLUP designates the POU as Watershed and Scenic Conservation and the POD as Resource Conservation – Coastal Strand and Wetlands. The areas surrounding the place of use and point of diversion are designated as Watershed and Scenic Conservation to the north and east and Outdoor Recreation to the south (remainder of Andrew Molera SP).

Further, the POU is zoned Watershed and Scenic Conservation (Coastal Zone) - 40-acre minimum (WSC/40-CZ) and the POD is zoned of Open Space Recreation (Coastal Zone) (OR-CZ), pursuant to the County's Zoning Ordinance. Allowed uses within the WSC/40-CZ zone include agricultural uses, such as livestock farming, on a minimum of 40 acres. The OR-CZ zone allows for establishment, enhancement, and maintenance of outdoor recreation uses. Allowed uses within the OR-CZ zoning district include grazing of cattle, buildings accessory to any principal allowed uses, water system facilities including wells and storage tanks serving 14 or fewer service connections and replacement of water tanks and wells where no increase in service connections is created, hiking and equestrian trails, picnic areas, primitive camping facilities, minimum accessory facilities such as restrooms, and parking accessory to other principal permitted uses.

The proposed project would result in continuation of existing land uses and proposes no change in land uses from agricultural to urban development. The proposed project POU and POD include uses that are compatible with the County General Plan and BSLUP land use designations and County Zoning Ordinance. Although the pump wells do not add to the recreational aspects of the area around the POD, the water well is an approved use within the OR-CZ zone. Therefore, the proposed project would not conflict with land use plans and there would be ***no impact***.

- c. As noted in Item 8, Biological Resources, no applicable Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional or state habitat conservation plan, has yet to be adopted for the POU or POD. As such, the proposed project would not conflict with the provisions of an applicable HCP, NCCP, or other conservation plan. Therefore, there would be ***no impact***.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| 10. MINERAL RESOURCES. <i>Would the project:</i> | | | | |
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Exceed energy demands significantly more than the current use or conflict with energy conservation plans? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a.b. To date, there have been no documented occurrences of valued mineral resources within the project area, nor has a locally-important resource recovery site been delineated on any plan. The proposed project would not result in the loss of availability of known mineral resources or a resource recovery site. Accordingly, the proposed project would have **no impact** on mineral resources.

c. The proposed project's use of electrical energy would vary throughout the year depending on water demands. The primary energy requirement would be associated with pump operation. Current energy use ranges from approximately 228 kilowatt-hours per acre-foot (kW-Hr/ac-ft) for the Old Well and 111 to 158 kW-Hr/ac-ft for the New Well; corresponding to pump rates of 872 to 1,567 gpm, respectively. The energy requirements of the pumps are related to pump rates, which, in turn, are a function of the distance to delivery point within the POU (i.e., Pasture 1). As distance to the point of delivery increases, the pumps require an increase in energy expenditure. Coupled with pump rate, is pump duration, which is a function of water demand. The proposed project

would result in the pumps operating at a maximum capacity of 1,800 gpm during those periods where the largest quantities of water are required in the POU. This pumping rate would be accentuated during the periods of drought where, extensive irrigation would be necessary to offset depleted antecedent moisture conditions. Typically, energy use would be the highest during the summer months; the period of highest evapotranspiration and, accordingly, water demands.

Elevated pumping rates would, however, be temporary and, for the most part, periodic. Energy demands over the course of the year would be slightly higher than that under baseline conditions. By comparing current energy use and pump rates to the proposed maximum pump rate, it is estimated that it would take approximately 180 to 230 kW-Hr/ac-ft to operate a pump at 1,800 gpm. These energy values are slightly higher than that of the current operation. The proposed project would not conflict with energy conservation plans. The proposed project would impart a ***less-than-significant impact*** to energy demands.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| 11. NOISE. | | | | |
| <i>Would the project result in:</i> | | | | |
| a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a.c. The proposed project would result in an increase in the diversion of water from the Big Sur River using existing pumps at the Old and New Wells. The proposed project, if fully implemented, would require an increase in pumping operation; likely both in pumping rates at individual pumps and, in overall pumping duration (daily and seasonally). The pumps, however, are currently enclosed in separate structures with noise reduction materials. Key receptors to noise generated by the pumps are primarily pedestrians on the park trails.

The proposed project could expose persons to noise levels exceeding existing standards and could result in a substantial permanent increase in ambient noise levels. These impacts have been reduced to less than significant levels with noise reduction materials. Noise levels in the vicinity of the well pumps would represent a ***less-than-significant impact***.

- b. The proposed project would not generate any groundborne vibrations. Groundborne noise levels again, as discussed above, would be confined to the pump houses and, with proper sound attenuation, would be effectively mitigated. Collectively, groundborne vibrations and noise would have ***no impact***.
- d. The proposed project would not use equipment that would expose persons in the park or neighboring areas to excessive levels of groundborne noise or vibration. While the hours of pumping operation may increase, relative to baseline, this would unlikely affect park users. Evening or early morning disruptions would not, for the most part, be evident given the distant proximity to the park campgrounds. The proposed project would have ***no impact*** on sensitive receptors in regards to substantive temporary noise levels.
- e.f. The proposed project is not located in an airport land use plan or in the vicinity of any private airstrip. There is no airport- or aircraft-related noise effects associated with the proposed project. The project would have ***no impact***.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| 12. POPULATION AND HOUSING. | | | | |
| <i>Would the project:</i> | | | | |
| a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a. The proposed project would not involve any construction activities, such as new homes, businesses or, the modification of existing infrastructure at the project site. No new streets/roads would be constructed, widened or extended as a result of the proposed project. The proposed project would be implemented in an undeveloped portion of the north Central Coast where there are few residences and businesses; the area is characteristically open space and agricultural. Furthermore, the proposed project would not result in the conversion of land use designations under the Monterey County General Plan or, be applicable to a zoning change because of the deed restrictions placed on the Ranch land. As a direct population growth or growth inducement project, this project has none of the traditional features or elements that would promote or encourage such urban development. The applicant would have to petition the State Water Resources Control Board to change the purpose of use from irrigation to any other use; such change would require additional compliance with the Board's procedures and CEQA.
- No permanent jobs would be added to the area. Therefore, the project would not induce substantial population growth. ***Less-than-significant impact.***

- b.c. The proposed project would not displace existing people or housing, or require the construction of replacement housing elsewhere. The proposed project does not involve any new housing or infrastructure, nor does it propose any activities that would change, or otherwise affect regional communities, populations, or residences. **No impact.**

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| <p>13. PUBLIC SERVICES. <i>Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</i></p> | | | | |
| a. Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a.- e. As previously noted; the proposed project would not result in any land use changes, new infrastructure, the development of housing or, otherwise increase the population of the local/regional area. Public services currently provided by all levels of government would remain unaffected. Nothing in the proposed project description would affect existing public service levels. As defined, the proposed project would impart **no impact** to the existing levels of fire protection, police protection, schools, and parks.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| 14. RECREATION. | | | | |
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a.b. The proposed project would not create new recreation facilities or cause an increase in local population that would generate an increase in the use of neighborhood or regional parks (i.e., Andrew Molera SP) or other recreation facilities. The project will not remove any existing features of Andrew Molera SP or, otherwise impair the current level of recreational activities offered at the park (e.g., hiking, picnicking, horseback riding, cycling, jogging, nature watching, etc.). **No impact.**

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| <p>15. TRANSPORTATION/ CIRCULATION <i>Would the project:</i></p> | | | | |
| <p>a. Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>e. Result in inadequate emergency access?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>f. Result in inadequate parking capacity?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a.b. The proposed project would not generate substantive additional vehicle trips. With the current operations of the pump facilities and pasture irrigation practices remaining the same, there would be no need for additional vehicular traffic. Existing traffic within the project area include the normal commercial/passenger traffic volume along Highway 1, visitors to and from Andrew Molera SP (seasonally influenced) and, routine operations and maintenance vehicles to the Ranch's pasturelands and PODs. Volume to capacity ratios would remain unaffected. The proposed project would have **no impact** on traffic congestion within the project area.
- c. The proposed project, as defined, includes no new construction of any kind; no structures that might impair aircraft flight paths are proposed. No airports are within operational proximity of the project site. The project, accordingly, would have **no impact** on air traffic and associated crew/passenger safety.
- d. - g. Traffic and parking from existing Ranch operations consists primarily of truck transport of cattle, periodic deliveries of supplies, and employee transport to and from the POU or POD. The proposed project would not change existing ingress or egress to the POU or POD, remove any alternative transportation features because none exist in the area, or develop uses that might require the use of alternative transportation facilities. The proposed project would not result in a change in Ranch operations or an increase in cattle production that would alter existing traffic levels, parking demands, or traffic patterns. No changes are proposed or necessary to any of the existing service roads within the POU or, to access the PODs. Intersections are uncontrolled and, because of the minor volume of vehicular traffic, will remain so. Emergency access to the POU or PODs would follow existing access roads from Highway 1. These roads are passable by emergency vehicles. The proposed project would have **no impact** on existing traffic and circulation conditions in the area.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| 16. UTILITIES AND SERVICE SYSTEMS. | | | | |
| <i>Would the project:</i> | | | | |
| a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5. Evaluation of Environmental Impacts

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| g. Comply with federal, state, and local statutes, and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a. - g. The proposed project would not result in new structures or land uses that would require additional utilities or service systems above those that already exist within the POU or POD. Although the proposed project would result in an increase in water diversions, no additional utilities or service systems are required above those already in use to serve the Ranch’s operations (i.e., existing Old and New Wells and irrigation system). Therefore, there would be **no impact** to existing utilities and service systems.

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| 17. MANDATORY FINDINGS OF SIGNIFICANCE. | | | | |
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ■ | □ | □ | □ |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | ■ | □ | □ | □ |
| c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | □ | □ | □ | ■ |

Discussion

a.b. As discussed above, the proposed project may have a significant impact on biological resources. Numerous facts suggest that there is a ***potentially cumulatively significant adverse impact*** on biological resources associated with the proposed project:

1. The project, as fully implemented, has not been assessed under a range of potential hydrological water year types; causal mechanisms that could explain some of the instream water quality parameters have not been verified by analyses within the study area;
2. Groundwater pumping, in theory, and resulting saltwater intrusion has the potential to adversely affect native and sensitive flora and fauna by impairing one or more elements of riparian habitat;
3. Groundwater pumping tests have not been fully performed to ascertain how proposed maximum pumping rates and maximum diversion of underflow could affect the riparian habitat of the Big Sur River watershed. If maximum diversions occur during a water short year, the potential impacts to the instream and riparian resources could well be exacerbated;
4. Preliminary field studies conducted to date document potential adverse environmental impacts to native and listed flora and fauna that are known to exist or have the potential to exist within the project area; however:
 - a. not all of the listed threatened and endangered species have been surveyed and documented,
 - b. other non-listed native biological species in the project area must receive consideration under CEQA, but have not been documented or fully evaluated,
 - c. no independent field studies have been undertaken as part of this Initial Study;
5. The Division's water rights records indicate that there are 21 permitted or licensed water rights, and 3 pending appropriative water right applications that have been filed and that seek diversions from the Big Sur River. These impacts may be cumulatively considerable in light of the other existing appropriations from the Big Sur River.

Further evaluation, directly focused on the remaining uncertainties and existing data gaps could generate substantive evidence that may support an alternative finding.

Additionally, as discussed in the relevant resource section, implementation of mitigation measures would reduce both individual and cumulative impacts to less than significant.

- c. This Initial Study finds that potential direct and indirect impacts of the proposed project on human beings related to issues such as air quality, noise, hazards and hazardous materials, land use, transportation, recreation, mineral resources, aesthetics, and public utilities and services have ***no impact***.