

racemosa) and giant creek nettle (*Urtica holosericea*). This riparian habitat could potentially be impacted by noise, light, or intrusion from proposed development within 100 feet of the creek.

Pipeline installation could potentially impact the willows alongside the road when some sections of the corridor are leveled for the pipelines to lie flat. Tractor maneuvering in this narrow corridor could also adversely impact the willows. The 2-foot wide pipeline corridor would cross the riparian zone (densely populated by willows) perpendicular to the direction of the flow. The applicant has submitted a revised grading plan indicating that the pipeline would traverse the riparian zone only once in order to minimize riparian impacts. In addition, the applicant has stated that vegetation clearing and pipeline installation across the riparian zone would be done by hand. It is estimated that only 400 square feet would be disturbed (2-foot pipeline across 200 feet of riparian zone).

The aquaculture facility was designed to provide a 25-foot buffer area between all improvements and the creek riparian dripline. Growout tanks and the hatchery achieve this distance. However, the unavailability of the existing dirt access road for use besides fire access due to the legal easement conflicts (Morchart 1989) has demanded the design of a 12-foot wide road directly adjacent to the existing access road. This design would also cause the two 12,000 gallon reservoirs to encroach between 12 and 19 feet of the dripline for a distance of 60 feet and grading for the access road between 15 and 25 feet for a distance of 65 feet. This is considered a significant impact, although limited in extent. The applicant has agreed to restore the western and eastern sides of Dos Pueblos Creek with native riparian species. This would mitigate encroachment within the riparian buffer of 25 feet to insignificant levels.

The California Department of Fish and Game (CDFG) objected to the planned release of used seawater into Dos Pueblos Creek near the project site because of the potentially adverse impacts that it could have on the freshwater wetland habitat resources of the creek. As required by CDFG, the grading plan has been revised to indicate that all of the used seawater from the facility would be released directly into the ocean as shown in Figure 2.

A coastal strand community exists immediately southeast of the Dos Pueblos Creek outlet and extends 25 feet northward alongside the road. Installation of the proposed pipelines would disturb approximately 50 square feet of this coastal strand community. This is considered an adverse but not significant impact. As designed, a 3-foot corridor would be trenched with a backhoe so that the pipes could be placed underground from the pump house seaward. Two additional trenchings would occur as installation of two 8-inch intake pipelines would be necessary. This impact would be adverse but not significant. DER therefore recommends that all pipelines be installed at one time to minimize adverse impacts to the coastal strand community and to help achieve consistency with the Local Coastal Plan. DER further recommends that all existing plants that would be potentially destroyed by grading shall be: 1) temporarily removed prior to grading, 2) kept moist during grading, and 3) transplanted in their original location immediately following completion of grading along that segment of the pipeline.

The applicant has proposed that all non-native plants along both sides of the site access road be removed and replanted with native vegetation to improve the general habitat quality of the site.

Fresh water would be transported by a 1.5-inch PVC pipeline from the Rancho Dos Pueblos Well No. 146 north of U.S. 101. It would extend through an avocado orchard south to the freeway crossing above Dos Pueblos Creek between the headwall of the ranch access road and freeway overpass pilings. Further south, the pipeline would cross the

creek again at the Old U.S. 101 bridge. It would then follow existing road shoulders and cut through the existing Christmas tree farm. All creek crossings would be elevated and attached to existing bridges. In areas of native ground vegetation, the pipeline would be placed on the ground surface. No adverse impacts are anticipated.

The following mitigations shall be recorded prior to issuance of the Coastal Development Permit to avoid significant impacts to the riparian community.

1. A riparian restoration and enhancement plan shall be prepared by a DER-qualified botanist and include the following: A 25-foot buffer on the eastern and western side of the riparian zone shall be recorded on the final grading plan to provide screening and to prevent intrusion. This buffer shall be planted with coffeeberry (*Rhamnus californica*), elderberry (*Sambucus mexicana*), California wild rose (*Rosa californica*), California blackberry (*Rubus ursinus*), and virgin's-bower (*Clematis ligusticifolia*). These plantings shall be weeded, watered, and maintained for a period of 3 years so that at least 90 percent survival is achieved. All planting and maintenance shall be directed by a DER-qualified native plant horticulturist.
2. A DER-qualified approved biologist funded by the applicant, shall survey existing riparian vegetation onsite and monitor pipeline installation and site grading in order to insure compliance with said mitigations. The biological monitor shall be funded by the applicant, but managed through a contract with RMD. The existing vegetation survey and monitoring contract between the biologist and applicant shall be reviewed and approved by DER prior to issuance of the Coastal Development Permit. A report summarizing the monitor's activities shall be provided to RMD.
3. All clearing in the riparian zone shall be accomplished with hand tools (applicant proposed).
4. All willows that are severely damaged or removed according to the biological monitor during pipeline installation shall be replaced at a ratio of 3 to 1.

Compliance with these mitigations would cause the project to be consistent with Streams and Creeks Policy 1 and Hillside and Watershed Policy 7.

Marine Biological Resources: The applicant has provided a written description of the intertidal zone at Dos Pueblos Ranch which states that it is characterized by a sandy beach in the summer which is scoured away exposing the underlying cobblestone in the winter. Although a few isolated boulders large enough to remain exposed throughout the year do occur intertidally, none are located in the proposed pipeline corridor.

The cobblestone exposed in the winter extends seaward from the headwall approximately 150 feet where the substrate changes to sand. The sand extends from the cobblestone out more than 550 feet. A narrow isolated rill supports a minor kelp community approximately 100 feet beyond the pipeline terminus.

Density and diversity of littoral species, in general, is greatest on reef structures. Pipeline installment is expected to take four days and be trenched and backfilled with cobblestone to a depth of -3 feet MLLW. The pipeline would cross loose cobblestone, but would not cross any stable rocky subtidal habitat and would terminate well away from any such reef structure. Further, the pipeline anchoring system would create a substrate (an artificial reef) upon which the density and diversity of flora and fauna would likely increase in comparison to the sandy bottom upon which it would lie.

Concern over the potential impacts of the proposed project to existing surfgrass (*Phyllospadix* sp.) has been addressed by CDFG. The CDFG has reviewed the surfgrass survey and map provided by the applicant (indicated on Figure 5), and has determined the project as proposed would not result in a loss of surfgrass due to the absence of significant populations of this species in the vicinity of the pipelines.

Concern has also been expressed by DER over the potential for the intake pipe to cause the entrainment of marine organisms. The applicant has stated that PVC intake would be perforated with holes no more than 1 inch in diameter to prevent entrainment. Additional screening may be placed over these holes if found to be necessary. The applicant's written description of the intake pipeline has been reviewed by CDFG.

Kelp harvesting for abalone food is not expected to have a significant impact on native kelp populations due to CDFG regulation of harvesting. The CDFG, based on its analysis of pipeline construction and installation, has determined that no significant impact would occur to marine biological resources as a result of the project as proposed.

Hazardous Materials: The only potential hazardous materials issue associated with the project is the storage of lubricants for the pumps. Given the small size of the pumps and the small quantity of oil needed to maintain them, significant hazardous materials are not expected to be stored on site. Therefore no significant impact associated with hazardous materials is expected to occur on the project site.

Polluting Sources

- **Noise:** The project would require three 10-horsepower (hp) pumps, each capable of pumping 400 gallons of water per minute, 1200 gpm total. Since the proposed facility would be surrounded by open space and the nearest residence is more than 0.5 miles away, no impact to human habitat would occur. Impact to native animal habitat would be minimal due to the placement of the pumps approximately 4 feet underground. Each module would include 1-hp blower/module. Water would be gravity fed from the main reservoir. Due to the small size, enclosure, and location of the pumps, noise impacts associated with this project are not significant. Each blower would be enclosed inside its module, or if necessary, inside a separate enclosure.
- **Light and Glare:** Operation of the facility would be primarily during daylight hours. Therefore, lighting requirements would be minimal. Two floodlights located on the western side of the grow-out tanks would be directed away from the riparian corridor and would be used only during facility emergencies. Therefore, impacts due to light and glare is not considered significant.
- **Vibration:** A high degree of pipe vibration from wave impact is not expected to occur given the 10-foot intervals between anchor blocks and the strength of the polyethylene pipes and welds to be used (Noel Higa, Engineering Development Associates, personal communication 1989). Therefore, the impact is not significant.
- **Returned Sea Water:** The return water from the hatchery and the grow-out area would be piped underground through a 12-inch diameter plastic pipe and empty into the ocean approximately 30 feet offshore. The discharged seawater would contain abalone excrement and small pieces of kelp not eaten by the abalone. The tanks would be periodically cleaned with a 5 percent solution of sodium hypochlorite. The anticipated quantity of this solution is 100 gallons per year. This solution would be neutralized with sodium thiosulfate, and diluted prior to discharge through the pipeline.

Additionally, several medicines may be necessary and would be applied in dilute concentrations in the water columns of the tanks (Table 1). The method of disposal of these medicines would be by dilution and release through the discharge pipeline. The Regional Water Quality Control Board has stated that there are no significant problems associated with the discharge from several similar facilities in the Central Coast Region. Therefore, this project's impact to ocean water in the vicinity of the return line terminus is not considered significant.

Table 1
Culture Water Medicines

Substance	Concentration in Application	Estimated Annual Usage
Benzocaine (Ethyl-p-amino benzoate)	50 ppm	200-500 g
GABA (Gamma amino-butyric acid)	1 uM	5-10 g
Hydrogen Peroxide	5 mM	100-500 ml 30% solution
Penicillin	150 ppm	500-1,000 g
Rifampicin	2 ppm	10-20 g
Streptomycin	150 ppm	500-1,000 g
Tris-Hydroxymethyl-aminomethane	6 mM	100-500 g

Agricultural Resources/Land Use: The proposed project site is on Dos Pueblos Ranch, formally known as Rancho Los Dos Pueblos. The ranch extends from the foothills of the Santa Ynez Mountains to the Pacific Ocean. The 2808-acre ranch was used as a commercial cattle operation from the late 1800's until the 1920's. The 1.1-acre project site and surrounding areas supported 15 to 20 dairy cattle as late as 1968. No cattle ranching has taken place on the ranch since then.

Since 1980, 22 acres adjacent to the project site have been cultivated as a commercial Christmas tree farm. Although the proposed project would occupy significantly less land than the former cattle ranch operation or the ongoing Christmas tree farm, the aquaculture project would be considered a continuation of agricultural uses onsite. According to the California Public Resources Code, policy 30100.2 states that "Aquaculture means a form of agriculture. . . . Aquaculture products are agricultural products, and aquaculture facilities and land uses shall be treated as agricultural facilities and lands uses in all planning and permit issuing decisions governed by this division." Other Coastal Resources Planning Policies require the protection of ocean front land and priority of coastal-dependent aquaculture on these lands provided that environmentally sensitive habitat is not endangered.

The proposed aquaculture facility would be a commercial agricultural operation. Resources would be utilized and enhanced in order to obtain a controlled environment in which a marketable commodity would be produced. This does not differ substantially from a commercial cattle operation. Since the proposed project would convert highly disturbed land with Class II soil to a productive agricultural facility, and no agricultural land would

be converted to another use as a result of the facility, the project is considered to have a beneficial impact on agriculture.

Air Quality: The Santa Barbara County Air Pollution Control District (APCD) has reviewed the proposed project and has identified potentially adverse impacts as construction related dust generation. These include generation of dust during grading of the 1.1 acres. The project would generate approximately 0.6 tons of PM₁₀ during the construction period, which is considered insignificant. The APCD has required that the standard mitigation measures including wetting down soils, and use of soil binders be incorporated into the Land Use permit to limit dust generation. This would reduce PM₁₀ emissions further.

Long-term air quality impacts would come from employee traffic. At full production, the facility would have a maximum of six employees who would generate a total of 12 average daily trips to the site. Therefore, the long-term impact to air quality is considered insignificant. No long-term mitigations area required.

Groundwater Resources: The project would draw freshwater for employee use from a Dos Pueblos Ranch reservoir. The reservoir is supplied by a creek diversion and therefore has no threshold of significance associated with withdrawals from the body. Freshwater project demand is calculated at a maximum of 0.26 AFY, which includes 0.10 AFY for six employees and equipment cleaning. Additional irrigation of the riparian woodland enhancement would be required for a several year period until vegetation establishment. However, due to the nature of the water source, impacts are considered insignificant.

Flooding: The project site, although adjacent to the east fork of the Dos Pueblos Creek, is not within a 100-year flood plain. The project would incorporate all standard County Flood Control District requirements and has already been reviewed and approved (Paley 1988). Project impacts would be insignificant.

Energy: The project would use three 10-horsepower (hp) pumps capable of pumping 1200 gallons of water per minute through the intake pipelines. The nine grow-out areas each would have a 1-hp blower/module to run water from the main reservoir and an aeration system. Total peak energy demand would equal 1200 kilowatts/day totalling 438,000 kilowatts/year. This is sufficient energy to roughly serve 70 single-family residences. Southern California Edison (SCE) officials have stated that this energy could be supplied without difficulty (Lee Conley, SCE, personal communication 1989). Impacts are considered insignificant.

Geological Resources: The proposed seawater pipelines would cross the ocean surfzone and be subject to extensive wave action. If insufficiently buried, wave action could scour and erode the overlying sediment cover, exposing the pipelines to wave induced stresses (86-EIR-8, Guadalupe Abalone Culture Facility). If this occurs, additional scouring at the rupture would potentially occur until the damage was discovered and repaired. An oceanographic engineering study has been done to evaluate potential stresses and impacts in the surfzone to provide sufficient design features to mitigate these factors (Marine Research Specialists 1989). Project designs include burying the pipeline's first 150 feet of pipeline extending from the headwall within the surfzone. The pipeline trench would be excavated into the substrate below the sand and heavy cobble layer, which would prevent wave action from scouring (Doug Coates, Marine Research Specialists, personal communication 1989). Scouring of sand beneath individual pipeline anchors that would rest directly on the sea bottom from 150 to 700 feet from the headwall could occur, but would not result in pipeline rupture, as the anchors would be spaced sufficiently close to one another to provide free standing support. Until the loose anchor was discovered, only minimal scouring would occur. These impacts are considered adverse, but not significant.

MITIGATION MEASURES AND COMPLIANCE PLAN: The following mitigation measures would be required in order to address potentially significant impacts. As required by Assembly Bill 3180, all projects which have mitigation measures addressing potentially significant impacts must include a compliance plan (CP) to ensure effective implementation of mitigation measures. In some cases a mitigation monitoring coordinator (MMC) would oversee monitoring of the mitigation measures adopted as conditions of approval. The applicant would be responsible for payment of a compliance plan fee. Monitoring conditions would also occur as part of normal building plan check/inspection procedures and through photodocumentation.

1. A riparian vegetation enhancement and restoration plan shall be prepared by a DER-qualified botanist and include the following: A 25-foot buffer on the eastern side of the riparian zone shall be recorded on the final grading plan to provide screening and to prevent intrusion. This buffer shall be planted with coffee berry (*Rhamnus californica*), elderberry (*Sambucus mexicana*), California wild rose (*Rosa californica*), California blackberry (*Rubus ursinus*), and virgin's-bower (*Clematis ligusticifolia*). These plantings shall be weeded, watered, and maintained for a period of 3 years so that at least 90 percent survival is achieved. All planting and maintenance shall be directed by a DER approved native plant horticulturist. The restoration plan shall be reviewed and approved by RMD prior to Coastal Development Permit issuance.

Compliance: Compliance with this measure would occur through the review by RMD staff of the plan and photodocumentation. The note on the grading plan would require approval by RMD prior to issuance of the Coastal Development Permit. A bond for the planting and maintenance shall be filed with RMD to insure implementation.

2. A DER-qualified biologist shall survey the existing riparian vegetation on site and monitor pipeline installation and site grading in order to insure compliance with said mitigations. The biological monitor shall be funded by the applicant, but managed through a contract with RMD. The existing vegetation survey and monitoring contract shall be finalized prior to issuance of the Coastal Development Permit. A report summarizing the monitor's activities shall be provided to RMD.

Compliance: Compliance with this measure would occur through the RMD review of the biologist's survey and monitoring report and photodocumentation.

3. All clearing in the riparian zone shall be accomplished with hand tools (applicant proposed).

Compliance: Compliance with this measure would occur through the review by RMD of the biological monitor's report and photodocumentation.

4. All willows that are severely damaged or removed during pipeline installation shall be replaced at a ratio of 3 to 1. A contingency bond for replacing willows shall be included in the bond provided by the County prior to Coastal Development Permit issuance. The biological monitor shall prepare a report provided to RMD stating the number of willows required.

Compliance: Compliance with this measure would occur through the review by RMD of the biological monitor's report and photodocumentation.

5. All non-native plants along the east and west sides of the site access road shall be removed and replanted with native vegetation to improve the general habitat quality of the site (applicant proposed).

Compliance: This note shall be placed on the grading plan which would be reviewed by RMD staff prior to Coastal Development Permit issuance. The biological monitor would insure compliance with this condition.

6. A DER approved archaeological monitor shall be retained onsite during excavation from the beach to the railroad trestle. If additional cultural deposits are found along the pipeline route, work shall be stopped and DER staff consulted to determine the extent of subsequent evaluation.

Compliance: The agreement for the monitoring shall be reviewed and approved by RMD staff prior to Coastal Development Permit issuance.

RECOMMENDED MITIGATION MEASURES: In addition to the above required mitigation measures, the following measure is recommended to minimize adverse environmental effects:

1. All pipelines shall be installed at one time to minimize adverse impacts to the coastal strand community. In addition, all existing plants that would be potentially destroyed by grading shall be: 1) temporarily removed prior to grading, 2) kept moist during grading, and 3) transplanted in their original location immediately following completion of grading along that segment of the pipeline. This note shall be placed on the grading plan which would be reviewed by RMD staff prior to Coastal Development Permit issuance.

Compliance: The biological monitor would insure compliance with this condition.

DOCUMENT PREPARED BY: ERC Environmental and Energy Services Company (ERCE) for DER Environmental Planner, David Stone. Please contact Mr. Stone at 568-2012 if you have any questions.

CHANGES IN "PROJECT DESCRIPTION": Any element in the project description that is not met as described shall constitute an action not considered as part of the initial study for this ND. In these cases, the RMD requests a complete reevaluation in light of these element changes. This re-evaluation may be subject to all regular fees and conditions.

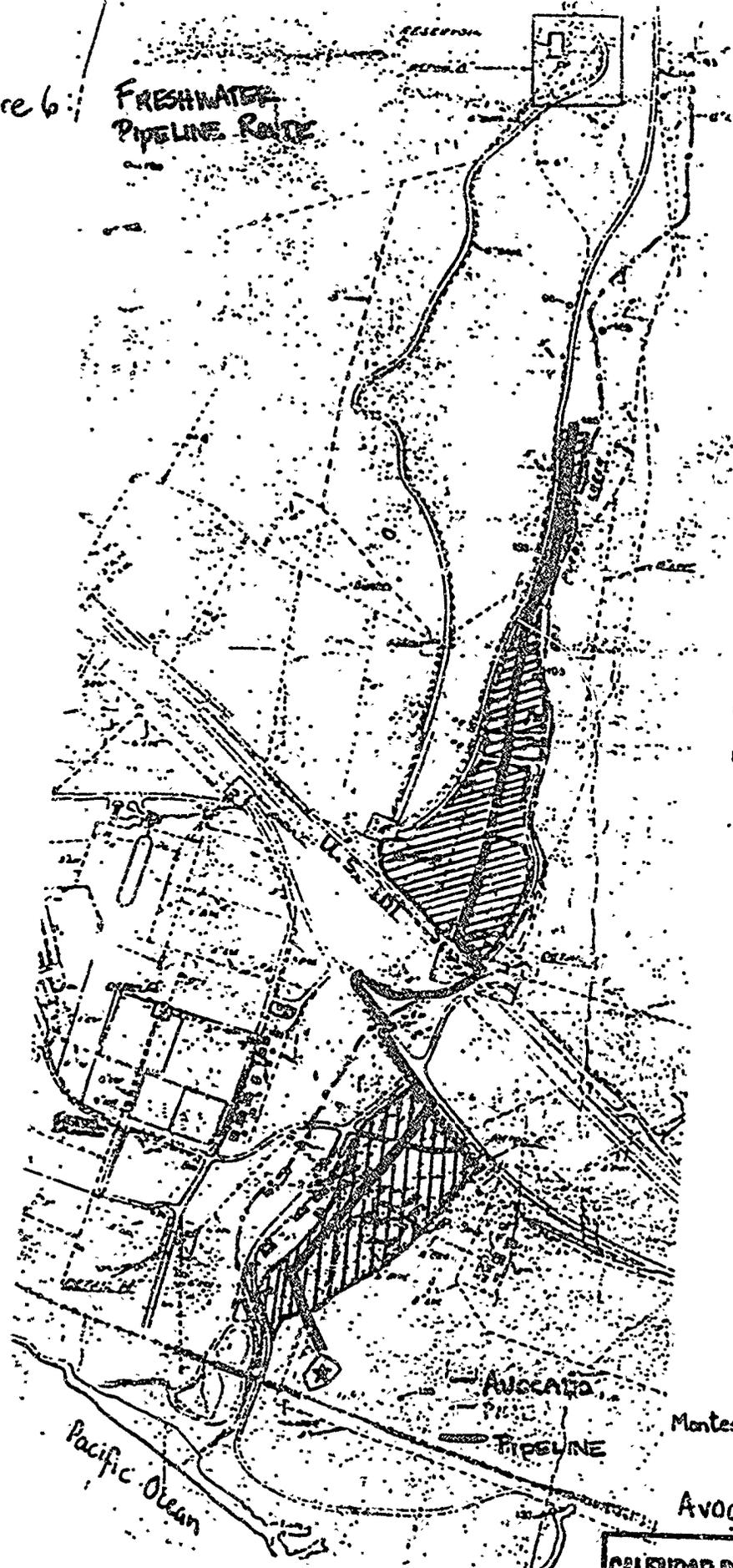
PUBLIC HEARING: The public hearing will be held at 9:30 a.m. on November 2, 1989 in the Planning Commission Hearing Room of the Santa Barbara County Administration Building, 123 East Anapamu Street, Santa Barbara, CA 93101. If you cannot attend this meeting, please make sure that written testimony also will be accepted. Copies of this ND may be obtained at our office. Anyone wishing to see the project file for this ND may do so by visiting our office.

Send comments to RMD, Division of Environmental Review, 105 East Anapamu Street, Room 103, Santa Barbara, CA 93101. All challenges to the Deputy Director's determination must be made in writing by the time stated if they are to be considered.

CALENDAR PAGE	217
MINUTE PAGE	227

Figure 6:

FRESHWATER PIPELINE ROUTE



Monterey Pine



Avocado



CALENDAR PAGE Site # 48
MINUTE PAGE 2:28

To Whom it May Concern:

Required Mitigation Measures Nos. 1-6 on pages 16 and 17 of the Revised Final 89-ND-55 have been incorporated in the 89-CP-53(CZ) project description to mitigate potentially significant impacts.

Signed:

William S. Rode
Applicant or Agent
Residents
cp\9cp535b.mnt

25 January 1990
Date

CALENDAR PAGE	319
MINUTE PAGE	229

STATE OF CALIFORNIA—OFFICE OF THE GOVERNOR

OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET
SACRAMENTO, CA 95814

GEORGE DEUKMEJIAN, Governor



November 6, 1989

Nov 6 1989

David Stone
Santa Barbara County DER/RMD
105 E. Anapamu Street
Santa Barbara, CA 93101

Subject: Cultured Abalone Facility/ SCH# 89010016

Dear Mr. Stone:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call Garrett Ashley at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,

David C. Munnkamp
Deputy Director, Permit Assistance

CALENDAR PAGE	350
MINUTE PAGE	2730



Santa Barbara County Park Department

610 Mission Canyon Rd., Santa Barbara, Ca. 93105 (805) 568-2461

"At Rocky Nook Park"

MICHAEL E. PAHOS
Director of Parks

FRANK LAURAN
Deputy
Director of Parks

RECEIVED
OCT 24 1989

S.B. COUNTY
RESOURCE MGT. DEPT.

October 23, 1989

TO: David Stone, Division of Environmental Review, Resource Management Department

FROM: Cindy Serna, Park Department

SUBJECT: 89-ND-55, 89-CF-53 (cz), The Cultured Abalone, Inc.

The Park Department has the following comments to 89-ND-55:

As a condition of 89-CF-53, the Park Department is requiring the dedication or reservation of a trail easement to the County along the Dos Pueblos Canyon frontage road ("Naples Access Road") for bicycle, equestrian and hiking trail purposes. This multi-use trail represents a portion of the Coastal Trail (De Anza Trail) for Santa Barbara County which is planned to connect Goleta to Gaviota State Park, and is consistent with the trail route as designated by the State Department of Parks and Recreation (see attachment).

It is not anticipated that the provision of this trail will negatively impact the project or the environment; however, a brief discussion of potential "Recreation" impacts should be included in the environmental document for this project.

Thank you for the opportunity for comment. If you have any questions, please contact me at extension 2469.


CYNTHIA SERNA
Park Planner

attachment

CALENDAR PAGE 35
MINUTE PAGE 2731

COUNTY OF SANTA BARBARA

123 E. ANAPAMU ST.
SANTA BARBARA,
CALIFORNIA 93101
AREA CODE 805
569-3000
FAX 569-3019



F. G. (SANDY) SCOTT
Assistant Director

EDWARD J. MARINI
Deputy Director

DEPARTMENT OF PUBLIC WORKS

MARLENE F. DEMERY
Director

DATE: October 10, 1989

TO: David Stone, Environmental Planner

FROM: Barry Rolie, Public Works Barry

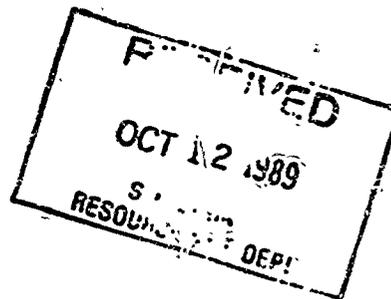
RE: 69-ND-55

I have reviewed the above referenced Negative Declaration and have no traffic related comments.

BR:cp

cc: David Stubchaer

BR00



CALENDAR PAGE 35
MINUTE PAGE 2732



THE CULTURED ABALONE

INCORPORATED

336 Coronado Dr., Goleta CA 93117

17 October 1989

David Stone
Environmental Review Division
County of Santa Barbara
123 East Anapamu Street
Santa Barbara, CA 93101

RECEIVED
OCT 17 1989
S.B. COUNTY
RESOURCE MGT. DEPT.

Dear Mr. Stone,

The following is a list of corrections and clarifications for the Negative Declaration prepared by ERC Environmental and Energy Services Co.

1. Page 2, Figure 1: the project area is shown to be close to Tajiguas. It should be located eastward, approximately where the 101 sign is.
2. Page 4, paragraph 4: there will be a maximum of 634 cubic yards of fill needed. We will not be cutting from the project site due to the archaeological sensitivity of the area.
The two bathrooms will be located in the hatchery, not in the trailer.
3. Page 4, paragraph 5: the hatchery will be 12 feet tall.
There will be eight PVC troughs (grow-out tanks) supported by three wood stands.
4. Page 8, Paragraph 5: southern tarplant (Hemizonia australis) and black-flowered figwort (Scrophularia atrata) have not been observed on the project site. The mention that they could occur on the site seems inappropriate. It should be noted that the biologists from the County, UCSB, and California Fish and Game who have visited the site have not observed these species.

CALENDAR PAGE 353
MINUTE PAGE 2733

5. Page 8, paragraph 6: Heliotis is spelled Haliotis.

Mid-paragraph: Possible explanations include . . . 2) natural mortality of old . . .

6. Page 12, paragraph 2: The applicant has proposed that all non-native plants along both sides of the site access road be removed and the east side replanted with native vegetation . . .

Since there has been no previous plantings of non-native plants along the pipeline corridor there will be no unnecessary plant removal.

7. Page 12, last paragraph: Cobblestone exposed in winter extends seaward from the headwall. Figure 3 should have been drawn showing the cobblestone under the sand extending up to the headwall.

8. Page 13, Paragraph 6: the project would require three 10-HP pumps, capable of pumping 1200 GPM. Each pump will deliver 400 GPM.

Mid-paragraph: . . . placement of the pumps approximately 4 feet underground.

The removal of the upper and lower reservoir for each module was a part of the project redesign to gain the 25 foot buffer for the riparian. There will be no 2 HP pumps at each module, however there will still be a 1-HP blower/module. The water will gravity feed from the main reservoir.

9. Page 15, paragraph 5: Freshwater project demands . . . for six employees and cleaning.

The value of 0.26 AFY is the absolute maximum since our figures show 0.13 AFY for cleaning equipment and 0.10 AFY for employees. This was calculated using the U.P.C. for employee's sanitation requirements. We feel with water conservation techniques we will achieve half the usage of water (0.13 AFY) reported here.

10. Page 15, paragraph 7: refer to correction #8.

11. Page 17, paragraph 3 (item 2): refer to correction # 6.

Sincerely,
The Cultured Abalons, Inc.
Benjamin E. Beede
By Benjamin E. Beede, President

CALENDAR PAGE	304
MINUTE PAGE	2334