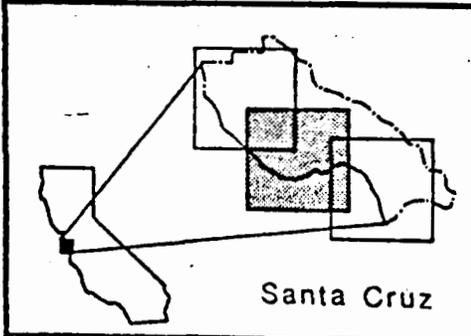
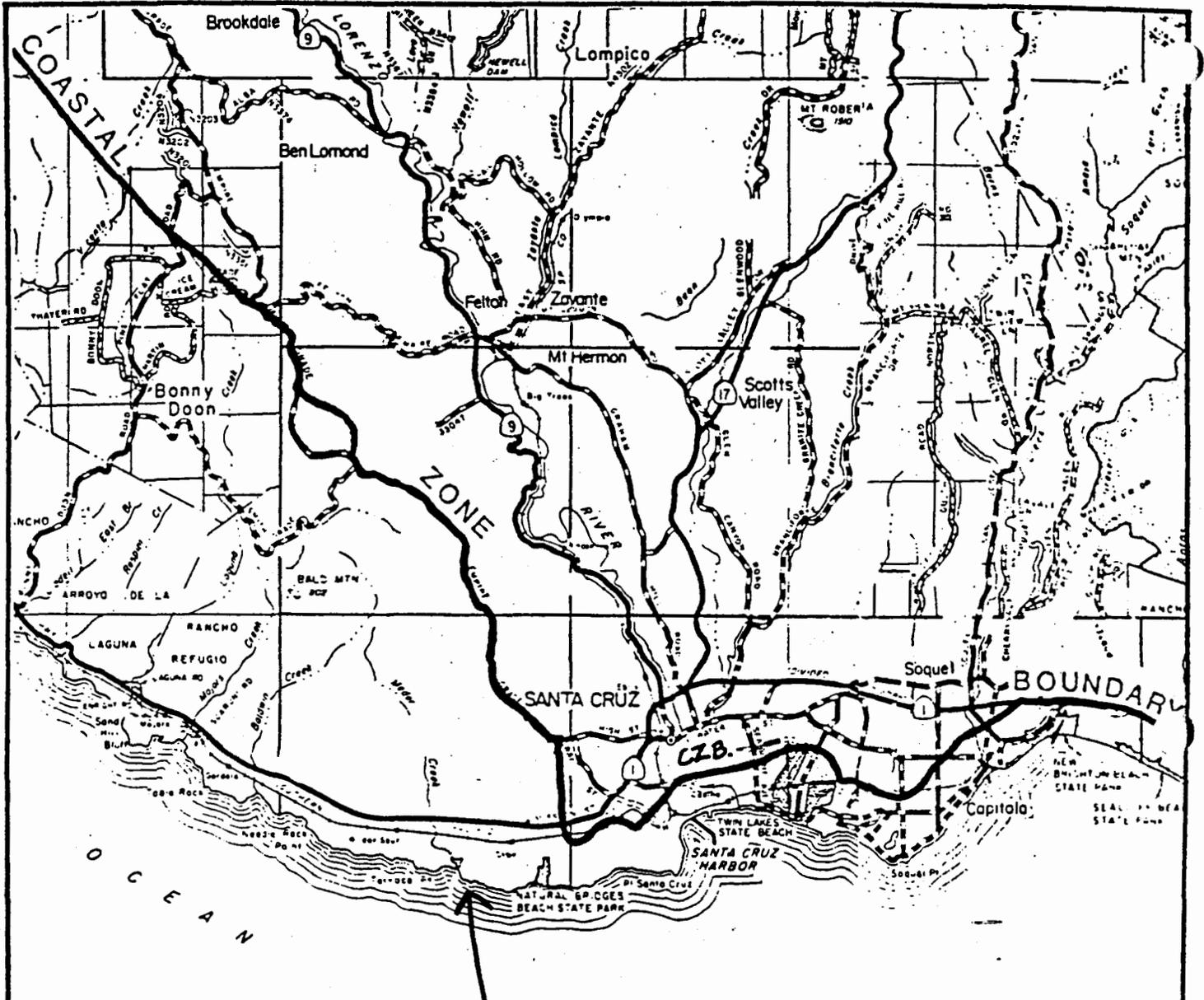


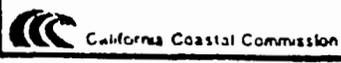
**Exhibit A: Marine Science Campus Location Maps**

Exhibit A consists of maps identifying the location of the UCSC Marine Science Campus.



**MARINE SCIENCE CAMPUS LOCATION**

**MBNMS**



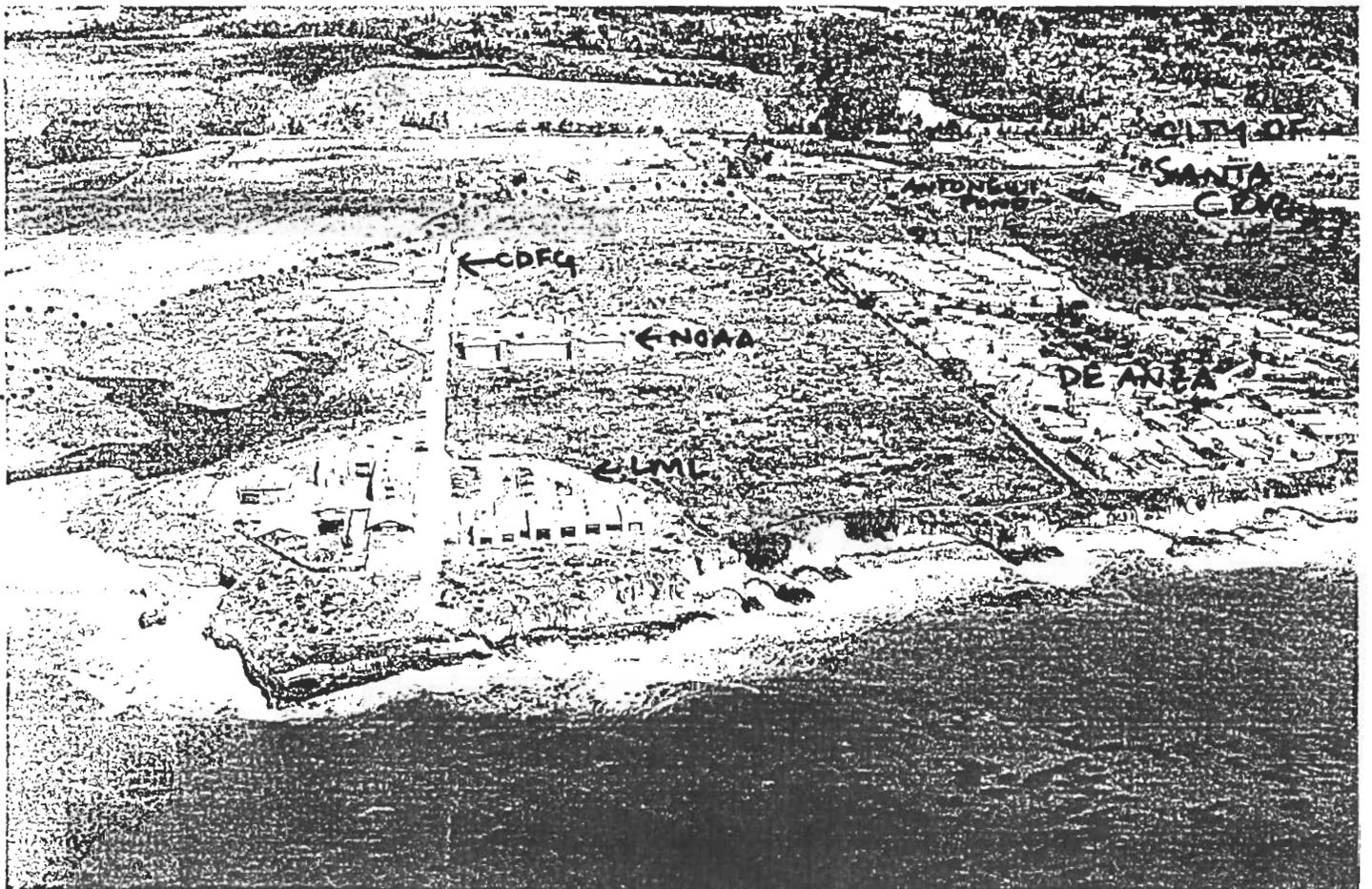
**LOCATION MAP**



County of Santa Cruz

Exhibit A  
(page 2 of 3 pages)

Sheet 2 of 3



**Exhibit B: Marine Science Campus Time Series Air Photos (1972-2004)**

Exhibit B consists of annotated air photos of the Terrace Point area taken between 1972 and 2004 (photos from the California Coastal Records Project).



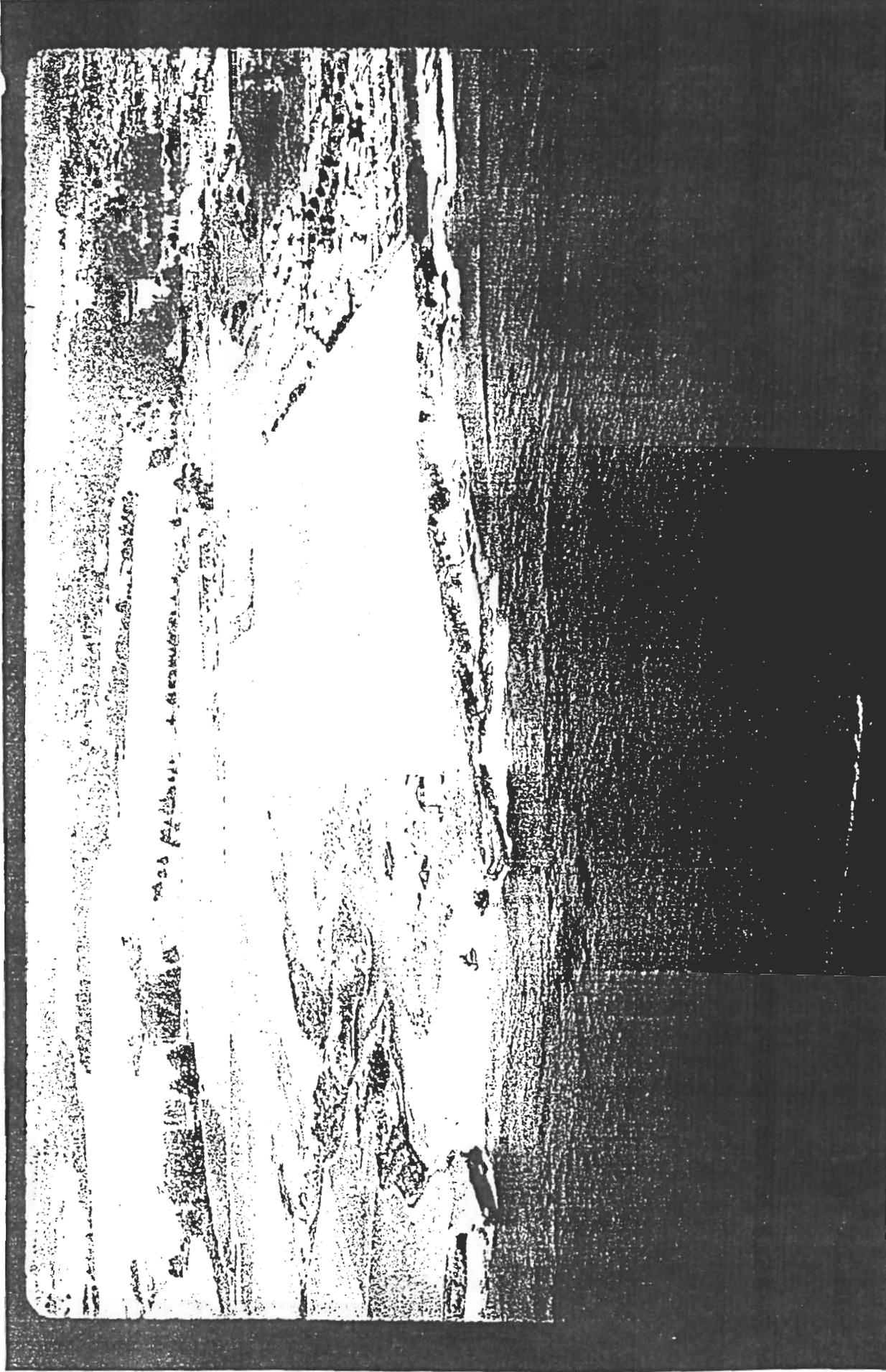
**1972**

1972 Exhibit B  
(page 2 of 7 pages)



1979

Map Sheet B  
(page . of 7 pages)



1987

CCC Exhibit B  
(page 4 of 7 pages)



California Coastal Records Project Image 584

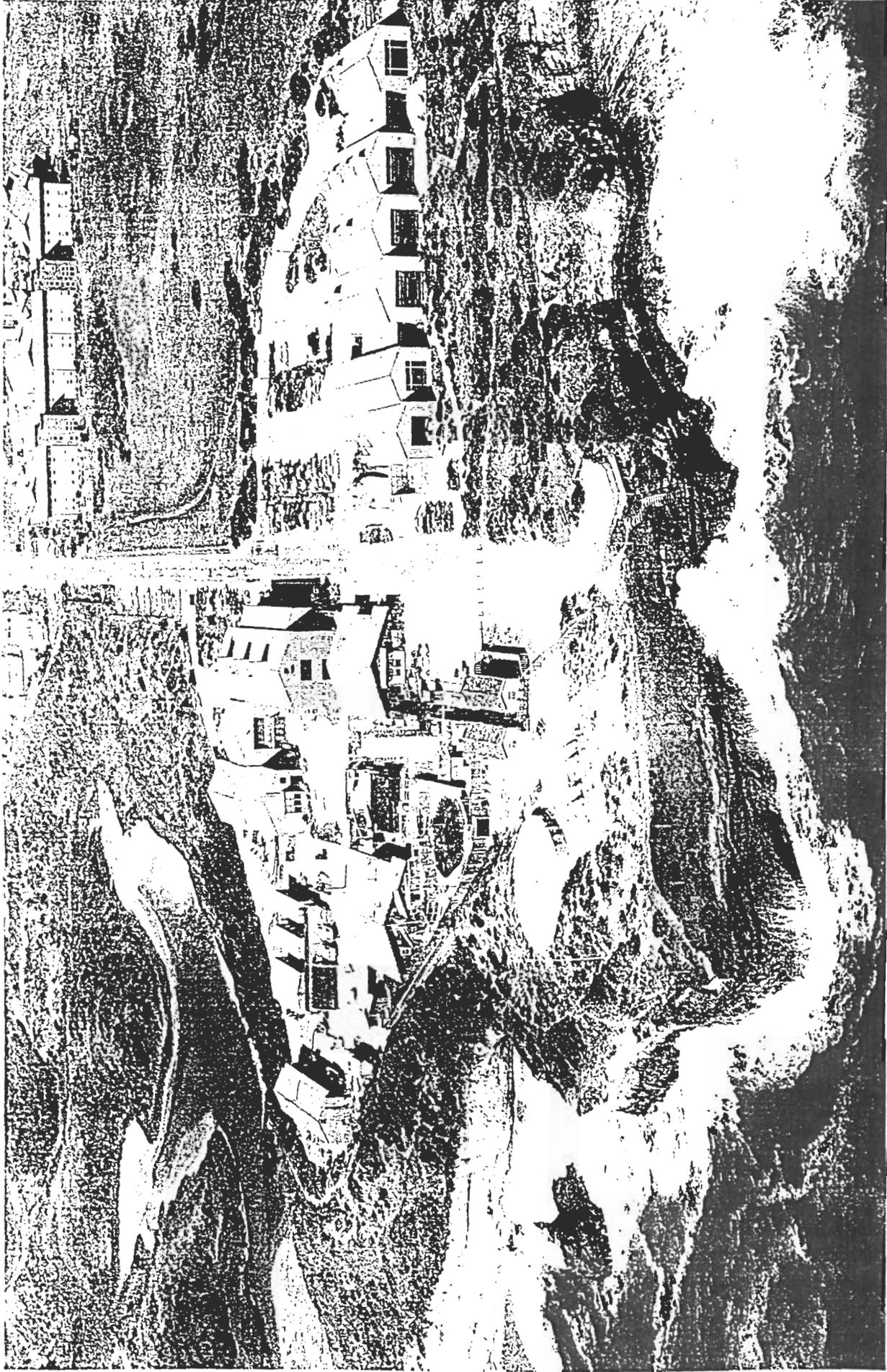
**2002**

DOC Exhibit B  
(a 5 of 7 pages)



**2004**

000 Marine B  
Page 6 of 7 pages



**2004**

2004 Exhibit B  
(of 7 of 7 pages)

**Exhibit C: Correspondence**

Exhibit C consists of correspondence received since October, 2005 Commission hearing.

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**RECEIVED**

JAN 25 2006

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

NATURAL RESERVES  
C/O ENVIRONMENTAL STUDIES  
1156 HIGH STREET  
SANTA CRUZ, CALIFORNIA 95064  
(831) 459-4971  
FAX: (831) 459-4015  
EMAIL: FUSARI@UCSC.EDU  
WEB: <http://ucreserve.ucsc.edu/>

January 24, 2006

Chairwoman Meg Caldwell and Members  
of the California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 92415

This letter is being sent to all Commissioners  
and to Coastal Commission Staff

Re: University of California, Santa Cruz,  
Coastal Long Range Development Plan for Marine Science Campus---  
Esp. Younger Lagoon Reserve

February 10, 2006 - Agenda Item No. F5B

Dear Madame Chair and Commissioners:

On behalf of the University of California (UC) and as the UC Santa Cruz (UCSC) Natural Reserves Director I respectfully urge the Commission to reaffirm its prior decisions to ensure the continued protection of Younger Lagoon Reserve (YLR) as an Environmentally Sensitive Habitat Area (ESHA), including the beach above mean high tide. The staff recommendations fail to provide for appropriate protection of YLR and run counter to previous staff and Commission conclusions and decisions concerning the need for protection of YLR including its sandy beach areas.

YLR is of importance to the University, to your mandate for protection of coastal resources, and to the public because it is part of a very small number of coastal wetland areas in California that are protected from human disturbance, because the lagoon supports a population of the endangered tidewater goby, and because YLR is an established reserve under the University of California Natural Reserve System<sup>1</sup> (NRS) that serves the State of California by supporting research and education, through stewardship of natural systems. The University strongly believes that continuing the practice of limiting unrestricted access to the YLR beach above mean high tide will help to ensure the protection of the coastal natural resources that are held in trust for the people of California.

The Coastal Long Range Development Plan (CLRDP) for the UCSC Marine Science campus, which includes YLR, is currently before you for approval as indicated above. We want to emphasize the

<sup>1</sup> YLR is managed on a day-to-day basis by UCSC). The NRS administers YLR and other NRS reserves through the division of Academic Affairs in the UC Office of the President. The mission of the NRS is: "to contribute to the understanding and wise management of the Earth and its natural systems by supporting university-level teaching, research, and public service at protected areas throughout California." For detailed information about the NRS the web site see: <http://nrs.ucop.edu>.

While not directly applicable to the current situation, the University is a trustee agency under the California Environmental Quality Act (CEQA) with regard to sites within the Natural Land and Water Reserves System (renamed the Natural Reserve System). As such, the University has "jurisdiction over natural resources affected by a project which are held in trust for the people of the State of California."

reasons we believe you should continue to authorize us to protect YLR as a whole as an Environmentally Sensitive Habitat Area (ESHA) as recommended by the Coastal Commission staff report. We also strongly believe that you should extend that protection, as in your staff's previous recommendations, and your previous actions, to cover the "sandy beach" above the mean high tide line. We strongly believe your action should protect the upper beach from open public uses because it is most appropriately considered ESHA and because it is a necessary part of and buffer to the rest of YLR.

When this same issue (allowing public access to YLR), came before the Commission in 2001, UCSC filed a response with the Coastal Commission about the need for YLR to remain closed to uncontrolled access and use by the general public (Copy attached.) The Commission staff wrote a concurring recommendation recognizing the need to protect the beach above mean high tide from uncontrolled public use. The Santa Cruz surfing community supported our position. The situation as presented then and the sensitivity of YLR resources have not changed since that 2001 action by the Commission. The arguments presented then continue to be valid today. The Commission agreed in 2001, as it had in 1981, that closure of the entire YLR, including the beach, was warranted for the protection of sensitive resources. We request that you reaffirm that position.

Attached are three figures that illustrate the characteristics of the beach at YLR. Figure 1 shows the beach area in winter. Figure 2, taken from the biological study by The Huffman-Broadway group shows the boundaries of the beach and the coastal strand, and illustrates the immediate adjacencies between the two and to the lagoon itself. Although the Coastal Commission staff report refers to a "sandy beach" without defining it, we interpret the beach to consist of the intertidal area below the mean high tide line and a looser, sandy area, the "high beach" almost but not quite devoid of live vegetation between that tidal area and the more densely vegetated portion of the coastal strand. Figure 3 shows the coastal strand vegetation and shows pioneer plants growing on the high beach. The presence of these pioneer plants reinforces the Huffman-Broadway designation of this zone as ESHA.

Our request is consistent with many of the staff report statements in that;

- The staff report affirms in several places that most of YLR is an ESHA that needs to be protected as coastal habitat (but provides no explanation why protection is not needed at the sensitive beach interface).
- The staff report further calls for significant buffering of the boundary of the ESHA to protect it against damages while allowing appropriate uses but provides no explanation why a sandy beach buffer is not needed).

These very points made by staff demonstrate the need for protection of YLR and actually contradict staff's suggestion that the sandy beach in this small area should be open to unrestricted public access.

The staff report mentions buffers 75 times, and refers to appropriate buffer widths ranging from 100 to 500 feet. Given that only about 50 feet exist between the mean high tide line and the dense coastal strand vegetation and the lagoon itself, it is imperative that inappropriate public uses not be permitted on the high beach. Common public uses such as picnicking, dog walking, and water play in the lagoon would certainly result in intrusions into the ESHA, trampling of the predominantly native coastal strand vegetation, and harassment of the Federally endangered tidewater goby that lives and breeds in the lagoon.

As agents of the University, the YLR and Seymour Center staffs are dedicated to providing public interpretation of this sensitive habitat. Our goal is to encourage better stewardship of our coastal resources. We provide public education about YLR and coastal resources in general. We are currently producing two new public interpretive panels (one for the Seymour Center and one for the beach

'overlook) presenting those resources and the protections they require. We have an active vegetation restoration program at YLR. The University plans to upgrade the overlooks as defined in the CLRDP providing further opportunity for the public to view and learn about YLR and the coastal resources of our region and state. In addition we will continue to implement the academic program of YLR in supporting classes, projects and theses on coastal resources and continue our commitment to native plant community restoration and weed control; monitoring and protecting the lagoon and the tidewater goby habitat; and other interpretative projects (panels, web sites, tours, etc.)

For the foregoing reasons, we respectfully urge the Commissioners reject the staff recommendation as to allowing unrestricted public access at YLR and rather to reaffirm their prior decisions to continue the protection of the entire Younger Lagoon Reserve by approving the full suite of YLR protections adopted by the Regents, including prohibition of unrestricted public access to the sandy beach area above the mean high tide line.

Sincerely yours,



Margaret H. Fusari  
Director, UCSC Natural Reserves

Attachments

- Figure 1. Younger Lagoon Reserve beach area in winter.
- Figure 2. Younger Lagoon Reserve beach area as defined by Huffman.
- Figure 3. The Younger Lagoon coastal strand and the beach areas.
- July 21, 1999 Response from UCSC to CCC Staff Report for CDPA 3-83-076-A13: UCSC Long Marine Laboratory Center for Ocean Health.

cc: Mr. Peter Douglas  
Mr. Charles Lester  
Mr. Dan Carl

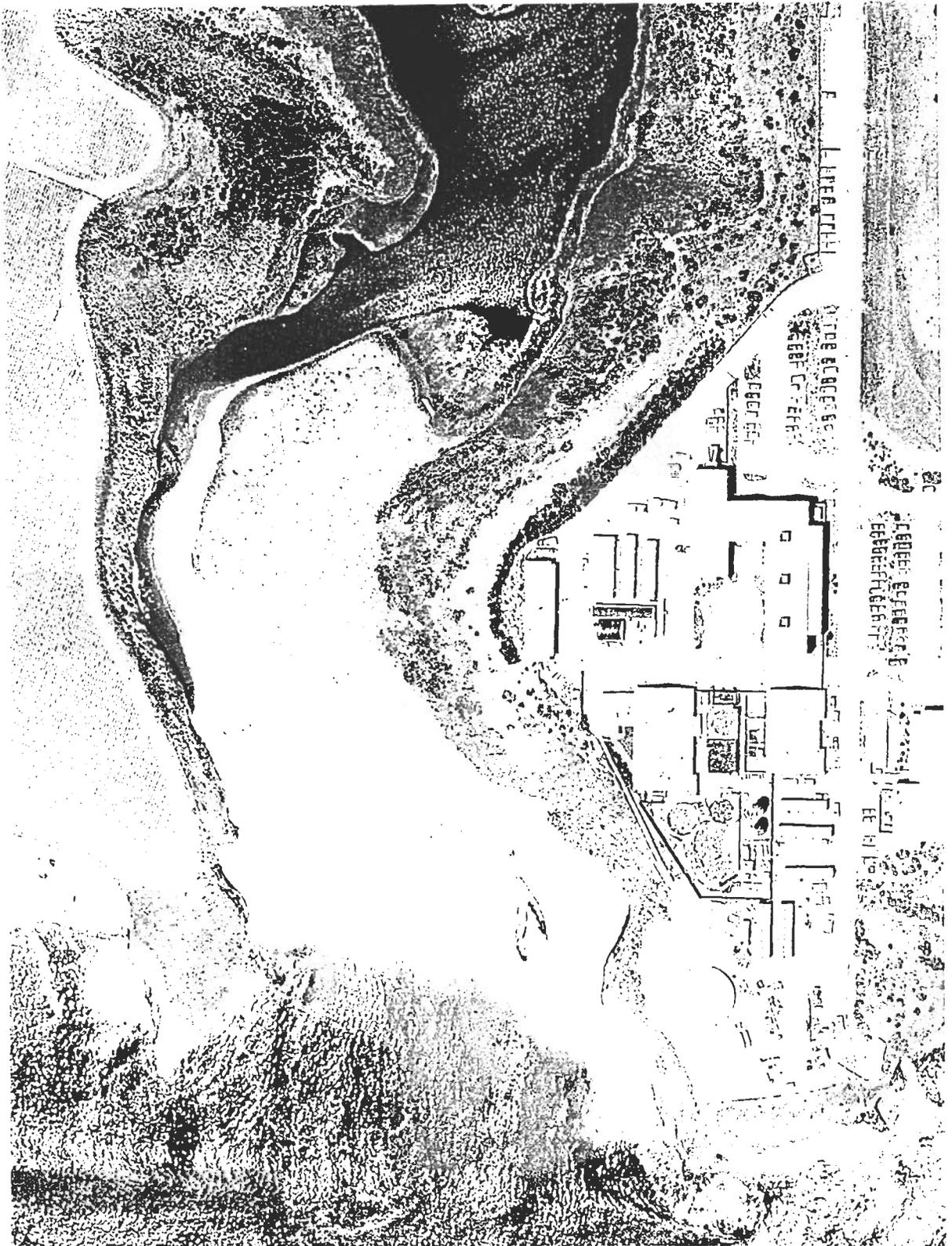


Figure 1. Younger Lagoon Reserve beach area in winter. Note tideline, coastal strand vegetation and heavy washover of berm by winter storms.



Figure 2. Younger Lagoon Reserve beach area as defined by Huffman. This is a spring picture and the inlet is now full of water. The coastal strand vegetation is growing. The black line is the UC property boundary, the dashed line is the YLR boundary with LML.

Colored lines are from Investigation of the Geographic Extent of Wetlands and Other Environmentally Sensitive Habitat Areas on Terrace Point and Younger Lagoon Reserve University of California, Santa Cruz by The Huffman-Broadway Group, Inc., July, 2002

Note the designation of beach (orange line) approximates the mean high tide line while the designation Coastal Strand (yellow) is only about 50 feet inland of the tidal area. The area inland of the yellow line is loose sand and has a few pioneer plants of the coastal strand on it. This area is a lightly vegetated part of the coastal strand and is the only buffer between the denser vegetation and the intertidal area.

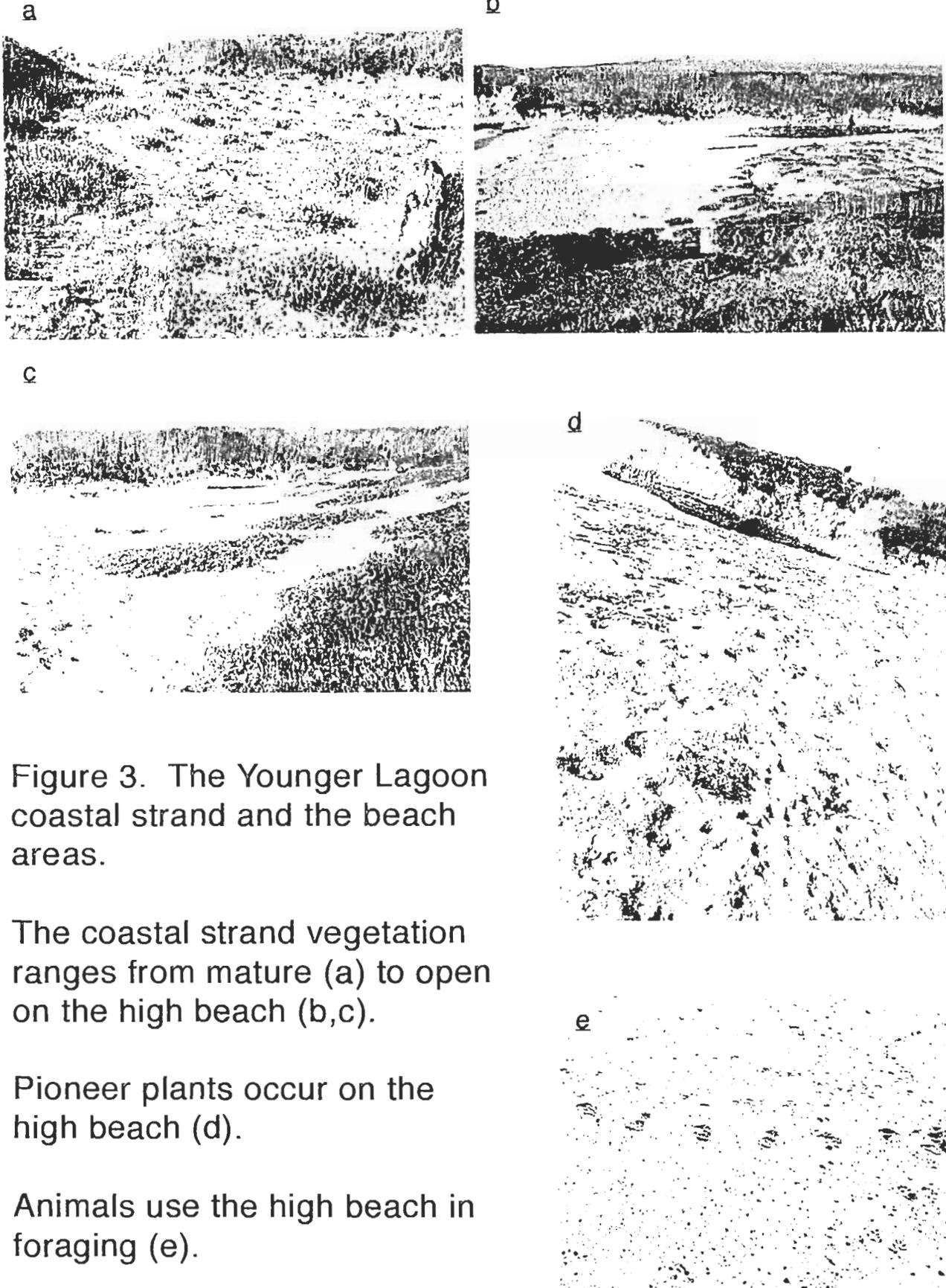


Figure 3. The Younger Lagoon coastal strand and the beach areas.

The coastal strand vegetation ranges from mature (a) to open on the high beach (b,c).

Pioneer plants occur on the high beach (d).

Animals use the high beach in foraging (e).

RESPONSE:  
Amendment 3-83-076-A13 Staff Report  
UCSC Long Marine Laboratory Center for Ocean Health  
Filed 7/21/99

Condition 8. Younger Lagoon Beach/Wetland Area management and Access Plan  
by  
Margaret H. Fusari, Director UCSC Natural Reserves  
for the Younger Lagoon Reserve (YLR)

Coastal Act Section 30240(a)

*"Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas."*

The official mission statement of the Natural Reserve System is:

*"The mission of the Natural Reserve System is to contribute to the understanding and wise management of the Earth and its natural systems by supporting university-level teaching, research, and public service at protected natural areas throughout California."*

The official mission statement of the LML Seymour Visitor Center is:

*"The Seymour Marine Discovery Center at Long Marine Laboratory educates people about the role scientific research plays in the understanding and conservation of the world's oceans."*

## INTRODUCTION:

We understand that the California Coastal Commission (CCC) is concerned that the Younger Lagoon Reserve (YLR), including its beach, is closed to uncontrolled access use by the general public. That closure was supported by the Coastal Commission in 1981 albeit with some questions and conditions which we hope are addressed in this document. The closure was recommended by CCC staff who wrote: "The Staff recommends that the Commission adopt the following Resolution: The Commission hereby approves the management plan, as modified, as it is in conformance with Chapter 3 of the Coastal Act and will not prejudice the local coastal planning options." This recommendation was based on documents prepared by Long Marine Lab (LML) and U. C. Natural Reserve System (NRS) personnel who were preparing the reserve for inclusion in the NRS system. In 1986 the YLR was officially accepted into the NRS by action of the UC Regents. Herein we will document that the Younger Lagoon Reserve is of more value closed and operated as an NRS reserve than it would be were it open to public access without restraint. We also document that open public access would severely impinge on the reserve and its mission. In addition we offer specific public access opportunities (in cooperation with the Seymour Discovery Center of the Long Marine Lab) that would not compromise the functioning of the YLR as a teaching and research reserve and will respond to the nine specific points raised by CCC staff. We ask your support in continuing our mission as an NRS reserve providing general public service both directly (through controlled access and interpretive programs) and indirectly through teaching and research on the composition and processes of an undisturbed reserve.

While we recognize that the CCC has a mandate to protect and expand public access to the California coast, we also recognize that there is a CCC mandate to protect sensitive coastal habitats for our native biota<sup>1</sup>. In this second area the NRS and the CCC share a common goal, to protect environmentally sensitive habitats, including the ecology, the flora and fauna, and the overall biodiversity from degradation and loss.

The wetland-beach area and the intact portions of terrestrial vegetation (primarily Northern Coastal Scrub) in YLR are an educational and research resource not matched by any other central California coast area currently open to the public. Because YLR provides habitats that are guaranteed to be free of the severe impacts of public use many types of studies or dimensions to studies can occur that could not otherwise be undertaken. For teaching YLR provides an example of a relatively intact system. For basic research on ecology or on specific organisms, YLR offers a system in which the inputs are known and hence the conclusions of the research can be assured and the papers can comply with peer reviewed publication standards. For baseline studies of the region's flora and fauna, YLR offers a complement of species against which to compare more impacted systems. This type of research is absolutely necessary to document

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<sup>1</sup> Coastal Act Section 30240(a). Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

Coastal Act Section 30240(b). Development in areas adjacent to environmental sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

ecosystem changes from human impacted comparison sites in order to provide well founded recommendations on issues such as appropriate setbacks, trail location and design, use levels and type of recreation pursuits appropriate for specific habitats. This applied research provides valuable information for the California Coastal Commission as well as other state/local resource and regulatory agencies. In support of research YLR needs to provide security for the investment of the researcher by assuring that his/her experiments will not be hindered or destroyed.

There is very little beach, coastal strand and coastal bluff and scrub habitat left in the central coast region to support the native flora and fauna that require them. There is very little (and in some cases, no) wetland and beach that remains undisturbed to support feeding by our sea and lagoon birds. YLR remains as a link in a chain of places that still does support active feeding and breeding by resident and migratory bird species. Too many of these ecosystems have been lost already and too much is being lost at a rate that virtually guarantees that the lists of species and habitats at risk are going to grow exponentially.

We understand that many people do not believe that people walking, with or without dogs, cars driving, lights glaring and/or sounds intruding have any impact on wildlife. But they do. Below (in response #5) we provide some specific evidence on the reality of the impacts of public access into bird habitats. This summary and the reference list that supports it present a cursory review of an ever-increasing literature on the impacts of human uses on native species and their habitats. Such research is often made possible because non-disturbed areas such as YLR exist for comparison.

Our basic management strategy is to prevent impacts; limit physical access to that required for management, teaching and research; and provide such public access as adds to the NRS mission while avoiding degradation of the natural values of the reserves and of its future availability as a natural system. We attach our current management plan (Appendix I) our NRS/YLR fact sheets (Appendix II), and as an update to our previous submission we offer the species lists of YLR in Appendices IIIa-d.

YLR is one of a system of 33 NRS<sup>2</sup> reserves. They were founded by UC faculty, including UCSC's own Ken Norris, on the premise that as lands are developed and used and altered, teaching and research would be in ever more serious need of undisturbed natural lands if the goal of understanding how a natural ecology functions is important to students and researchers. The founders also recognized that research and teaching sites had to remain undisturbed in order to undertake long-term projects with confidence. All of the classes, independent projects and research projects listed below (in response #1) were able to learn about and document the ecology of a system where natural processes, if not undisturbed, were at least present and operating.

## RESPONSE TO THE NINE QUESTIONS POSED BY CCC

### 1. Research and Teaching Activities in YLR

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<sup>2</sup> The NRS maintains a website at <http://nrs.ucop.edu/>

*Summary of Younger Lagoon Reserve uses.* Often use categories overlap as, for example, when a researcher involves student independent studies in his/her project or a management need is met by applied research and student involvement. Sometimes class introduction to the Reserve leads to independent study or research in subsequent terms as students train for a professional career in field science.

The following is representative of the projects supported at and by YLR:

*Teaching.* The reserve is used by classes and students engaged in internships and independent studies including senior thesis research. Over the past 10 years the Reserve has been used for:

**CLASSES:**

- Restoration Ecology
- Natural History of Birds
- Biology and Ecology of Vertebrates
- Environmental Field Methods
- Natural History of Amphibians and Reptiles
- Natural History of Mammals
- Aquatic Toxicology
- Invertebrate Biology

**SENIOR THESES:**

- Vegetation analysis (4)
- Methods of poison hemlock control (3)
- The mammals of YLR (2)
- The reptiles and amphibians of YLR
- The birds of YLR (2)
- Baseline studies of the lagoon invertebrates
- Analysis of the intertidal of YLR and adjacent coastal shelves
- History of the westside Santa Cruz agricultural lands

**INDEPENDENT PROJECTS IN:**

- Vegetation restoration (many individual projects)
- Comparison of YLR scrub with other, north coast localities
- Analysis of soil salinity after a sea water spill into the upper reserve
- Vegetation monitoring and analysis
- Multiple surveys on the abundance of vertebrate populations (birds, mammals, amphibians and reptiles)
- Lagoon water chemistry
- Air quality in coastal regions
- Development of an interpretive flyer for the LML docent program at YLR
- Hydrogen Sulfide sampling of the lagoon

*Research.* Research has been mostly in applied ecology, often by graduate and undergraduate students or non-profit organizations. We address the concerns of potential researchers about trespass and security in our response to #5. Projects to date include:

- UCLA doctoral student Todd Haney, working with Los Angeles County Museum project on systematic research on the marine crustaceans, the Leptostraca.
- Participation in the Christmas Bird Count (Santa Cruz Bird Club).
- Methods of poison hemlock control
- Creating buffer strips for prevention of soil loss in agricultural runoff (cooperation with adjacent farmers)
- Mussel watch (a project from UCSB to determine water quality in coastal lagoons)
- Analysis of heavy metals in the lagoon by UCSB
- Analysis of organochemical movements in the air along the coast (Dr. Harry Prest of UCSC)

*Public Service.* The Younger Lagoon Natural Reserve is closed to public access except through tours led by the docent program of the Long Marine Lab Seymour Marine Discovery Center, the volunteer restoration program of the YLR, and the specific activities of organizations such as the Santa Cruz Bird Club. This is necessary to protect the habitats in support of preservation of a native ecosystem and protection of ongoing projects in teaching, restoration and research. A specific program of constructing overlooks and pathways is in place or proposed as described elsewhere in this document.

Additional UC owned property is accessible to the general public (Appendix IV). UC owns property between mean high tide and the base of the bluff below De Anza Trailer Park. These lands are extensively used by the general public entering from Natural Bridges State Park, and are used extensively by docents providing public tours of the intertidal zone. This public access through De Anza is established via a recorded access plan, which was required by the Coastal Commission. In addition the response by LML to Condition 7 documents additional regional opportunities for public access.

## 2. Existing Public Access Opportunities at YLR

Existing public access outside of YLR is provided by the roads leading to LML and the Seymour Discovery Center and the path around the UC owned property commonly known as Terrace Point. The access to and around those areas is detailed in response 7: the Interim Access Plan for Long Marine Lab. We understand that the Seymour Center will open to the public in March 11, 2000 and that the docent-led programs for visitors and classroom students will be greatly enhanced.

Existing public access to the Younger Lagoon Reserve; overlooking the beach, lagoon and upper lagoon watershed; is currently provided by two overlooks. These are accessible by individual appointment and with docents from McAllister Way through the LML property. The currently operating overlooks are labeled D and E and correspond with the CCC suggested overlooks (2 & 4), and are shown in Appendix IV.

Overlook D is located on top of the berm just west of the LML marine mammal pools. A path leads through LML to a handicapped access ramp, and then to a platform providing

views of the ocean, beach, south lagoon and east and west facing lagoon side slopes. Further description of this access point is provided in response #8 below.

Overlook E is located north of the Center for Ocean Health building that is presently under construction. An access trail goes from the construction site, up to an opening in the berm and then to a small bench and open observation area just north of the berm. From this observation point, one can see the entire lagoon including both upper arms, the back dune beach, and both lagoon side slopes. However because of the site's open and prominent location we presently limit access to small docent-led tours and birdwatchers who are aware of how to avoid disturbance to wildlife. In the future the YLR intends to install taller native shrubs to screen the access trail, and build a 'duck blind' observation shed at the site in order to limit human disturbance while providing regular, docent-led tours.

There are no public access trails into the lagoon or along its edge due to the sensitive nature of the flora and fauna, the steepness of the slope and the pervasive presence of poison oak. Access into the reserve is by permission for research and teaching purposes only. YLR staff gives prior permission after receipt of a research or teaching plan, so that any wildlife disturbance can be prevented, and other impacts (vegetation disturbance, trail erosion) can be minimized and monitored.

Public access to the observation points is and will continue to be provided through the public programs of the LML Seymour Center to visitors through guided tours. Other than McAllister Way, there are no internal LML trails connecting the two observation sites; use of docent led tours makes these trails unnecessary. The Seymour Center and the YLR staff will continue to train docents in the history and biology-ecology of the lagoon and to produce additional interpretive material and panels, especially on the birds and the restoration ecology projects. Through this program several thousands of visitors each year have and will visit the YLR without inflicting damage on the habitats or adversely impacting the survival of the vegetation and wildlife.

### 3. Combining YLR and Wilder State Beach Research Activities

According to State Park staff there are some existing 'research' activities at Wilder State Park that are related primarily to restoration work that has or is proposed to be undertaken at the Park (D. Vincent, personal communication, 2/2000; G. Gray, personal communication, 2/2000). Robert Schultz, a student of now emeritus UCSC Professor Robert Curry, installed a sonar measurement device in Wilder Creek under the Highway 1 overpass to measure water volumes and water quality parameters. Data from these measurements have been sent to State Parks over the last 8 years. Approximately 8 years ago, a Wilder Creek restoration project removed agricultural fields from production, eliminated dredging of the creek, replanted streambanks and restored red-legged frog habitat in the creek. Some monitoring has occurred since the restoration, including bird surveys and review of vegetation transects to determine revegetation success that included some UCSC students. State Parks staff was not able to document any other research efforts.

Because State Parks is underfunded for site specific research that may lead to improved park management, State Parks personnel are very receptive to University research at Wilder State Beach on that issue. UCSC is also receptive to opportunities afforded at Wilder Ranch State Beach and Lagoon, especially for student internship projects. However, State Parks' mission does not include the general support of University research and teaching. Significant research and teaching activities within the State Park may conflict with the State Parks' mandate to preserve resources within the Wilder State Beach Natural Preserve. The requirement to protect State Parks' natural preserves is contained in Section 5019.71, Division 5, Chapter 1, Article 1 of the Public Resources Code. This provision states that natural preserves ... "shall allow the natural dynamics of ecological interaction to continue without interference...." Therefore, considering this statutory mandate, cautious management by SP staff may lead to restrictions on type and amount of teaching/research that could be conducted at Wilder Park State Beach. Certainly, research/teaching activities would have to be limited during the Snowy Plover nesting season. Snowy Plover is a federally listed threatened species.

The habitats are not fully comparable and the primary mandates are not similar. The Wilder State Beach is closed specifically to protect the snowy plover population and general research or public access must not compromise that purpose. We have noted that CCC staff members and CDPR personnel have indicated to UC in the context of discussion of our programs at the Landels-Hill, Big Creek reserve on the Big Sur coast that they value the reserves as comparison sites for their own projects on more heavily used lands and CDPR cannot, by their own mandate, prioritize the goals of teaching, research and public service as defined by the UC and UC/NRS missions. UCSC would be delighted to cooperate farther with them and the Younger Lagoon Reserve could serve as a comparison site for some of their applied work.

#### 4. Effects of Limiting Access to Younger Lagoon since 1981

Except for informal observations and a series of photographs taken regularly since 1986 (the incorporation date for YLR into the NRS) the effects of lagoon and beach closure have not been studied or formally documented. Furthermore, correspondence in CCC files (Application 3-83-96 and P-1859) indicate that the previous owner, Donald Younger, was fairly successful in restricting access before 1975. Apparently some increased public use occurred between 1975 and 1981 when security was not in place. Changes between the mid-1970's and the mid 1980's were not documented and our photograph series indicates that by 1986, five years after limiting access, the beach area was already relatively stable.

Due to the closure, a natural ecosystem appears to exist on the beach, and it has been observed to support a normal complement of shorebird feeding on both the front and back beach. Photographs taken since 1986 show that the vegetation of the backbeach has been increasing and hence the quality of the habitat has been enhanced. There is very little problem with trash. We still have trespassers that get past the security and cross the beach, sometimes impacting wildlife and probably vegetation.

Other possible differences in the Lagoon wetland ecosystem have not been observed or studied. Changes in biological productivity, such as invertebrate species diversity and density, are not known. Observations of invasive plant encroachment, undertaken as part of class projects, student research and restoration efforts, have indicated that we have a problem with encroaching weeds, especially poison hemlock and wild mustard and radish. The worst areas began and have spread from places where physical disturbances have occurred, on uncompacted berms, ad hoc trails, and uncontrolled drainages. It should be admitted that the problems with poison hemlock have been increasing all along the Central Coast region and we are not exempt from this problem. Based on our experience and on research and observations from other areas, significant human disturbance from trails, erosion etc. would be expected to increase numbers and aerial extent of invasive plants species if public access was prevalent within YLR. If our weed control and restoration efforts are to be successful we need to be as free of additional disturbances as possible.

A comparison of wildlife species lists from the 1970's, 1980's and 1990's, as well as Christmas bird counts for the Lagoon shows a somewhat higher density and diversity of waterbirds, shorebirds and terrestrial birds over the last 25 years (although this could be partly due to increased survey effort). Bird counts from the late 1970's listed 163 species, while counts taken during the 1980's show about 217 species. The number of state and federal listed threatened and endangered species has remained about the same, but the number of State species of special concern at YLR have increased. However, this is primarily due to changes in species' listing status over time, rather than an increase/decrease of these species at YLR. The same sensitive or locally unique species observed in the 1970's occur within YLR today. We are in the process of evaluating YLR as bird habitat. We are putting over 10 years worth of bird banding data into computer form for analysis and are supporting fall and spring internships to acquire current data on migrating and breeding bird uses of the reserve.

Unfortunately the YLR still suffers from trespass, mainly by surfers trying to get to good surfing areas upcoast that are relatively inaccessible due to intervening private land. Trespass is causing some impact to wildlife. Margaret Fusari, Director of the UCSC Natural Reserves, observed a footprint that had crushed a bird nest on the backbeach several years ago. This is an example of the direct damage that can occur with casual access through a reserve that protects and promotes breeding wildlife. The indirect effects of such disturbance will be addressed separately below with references.

##### 5. Potential Impacts from Public Beach Use

YLR cannot open public access to the beach and keep the rest of the Reserve secure for teaching and research. Beach use would cause a number of impacts to Reserve biota. These two issues are interrelated and are discussed below.

##### *Natural Reserve Research and Teaching Responsibilities*

The UC Natural Reserve system was established from the realization that the state's population and development were increasing at such a pace that few areas remained safe from human disruption, even on partially protected public lands. A growing proportion

of California's natural landscapes were becoming unusable for natural ecosystem research and teaching, particularly California wetlands, where by 1980 over 90 percent were filled or severely impacted. Therefore, in the 1960's, UC faculty decided that there was an immediate need for natural areas managed specifically for academic use, where students, faculty and researchers could undertake long-term projects without the fear that their research or teaching sites would be compromised by human disturbance. Inherent in protection for research and teaching sites is protection of natural habitat.

The Younger Lagoon Reserve was established in 1986 as an official NRS reserve to provide teaching and research opportunities in a relatively undisturbed ecosystem with beach, marsh, riparian and coastal scrub habitats. It was noted that the Lagoon itself is somewhat unique in that a high bedrock shelf creates a relatively permanent barrier beach that allows infrequent saltwater inundation.

The list of classes and research conducted at the YLR in response #2 indicates the importance of this Reserve to the University. In addition letters (Appendix V); submitted in 1981 by Doyle, Briggs, Penat, and Norris; documented the specific need to restrict public access in order to protect YLR habitat values for teaching and research and make it suitable as an NRS reserve. The information and arguments provided in these letters are the same today as they were in 1981.

Academic researchers have expressed concern about protection of their sites and disturbance to transects and plots from existing trespass and we believe this may have discouraged some research projects at YLR. To fulfill the research mission we especially need to protect the reserve and the researchers' investment in the work. To do that we need to restrict public access and maintain our security of the reserve. CCC support will go a long way to inform potential trespassers that the reserve should be so protected.

#### *Impacts to YLR Natural Resources*

The various lagoon plant communities provide protected habitat for over 200 resident and migratory bird species, 38 mammals, and more than 20 reptiles and amphibians (Appendices IIIb-d). Over 40 of these species are listed as sensitive (threatened, endangered, state species of concern, or locally unique). The lagoon ecosystems also contain approximately 88 native plant species and 29 non-native species (Appendix IIIa). Several plant species (including one strand species) are rare or locally unique.

Predicted impacts of humans (particularly with dogs) on avifaunal breeding, feeding and resting are enormous. Of the bird fauna inhabiting Younger Lagoon, a significant number nest within the reserve—some in the beach or near beach environment. A number of other species depend almost entirely upon the lagoon, dune, beach, scrub or a combination of these habitats for food and resting areas. Other migrant species depend upon these same habitats. Studies have confirmed that the presence of people (even those who do not bring dogs or make noise) cause many of these birds to move out of their preferred habitats. Most will leave the greater Younger Lagoon ecosystem entirely. Researchers have also found that because other similar ecosystems in adjacent areas are at or near capacity, this disturbance often results in a direct loss of these species.

Bird disturbance has other impacts. Birds that are resting are conserving energy, as alarm movements cause waste of energy that is needed for survival, and especially for breeding. If a bird is disturbed in the non-breeding season once or twice, there is probably little long term effect, unless a predator happens to note its movements. In the breeding season, energy is at a higher premium for maintaining the nest and territory, foraging and feeding the chicks. Many adult birds are in negative energy balance during this period--that is to say they use more energy than they eat and hence rely on storage from feeding in the non-breeding season.

Unsupervised access would certainly cause serious degradation of the 24-acre YLR as sustainable habitat for sensitive coastal species. Effects are cumulative and multiple disturbances would result in a loss or severe decline of a number of species from YLR. With severe disturbance only the few species that are especially tolerant of humans and inhabit other disturbed wetland/upland habitats would remain at Younger Lagoon. Therefore, in addition to the research and teaching loss, uncontrolled public access would cause loss of this site as another along the coastal network of sites available for migrating and breeding coastal birds.

A review of some of the current literature on human disturbance and bird populations reveals the following (See Appendix VI for the reference list):

According to several researches birds are continually vigilant to avoid unwanted human social interactions, although some species will become habituated to human activities in areas where they are protected from actual harm. However they are still disturbed by the presence of people as evidenced by their often deciding to move, abandoning feeding or breeding activities and devoting additional time and energy to avoidance of contact or the perceived threat of contact. The increased energy drain is evidenced by the increased heart rate and metabolic activity and can have detrimental effects on reproductive success and behavior along with the loss of foraging time or breeding interactions. An increasing number of research studies (see partial list attached as Appendices VI & VII) confirm this conclusion. Studies are also showing that even the most seemingly innocuous type of disturbance (a person walks by and a bird moves a few feet) can have serious cumulative impacts on bird fitness if multiplied by many people and increased by stronger stimuli such as loud noises, fast movements, dogs, etc. If an area is to be a safe haven for feeding and breeding by wildlife it must remain in a relatively undisturbed state. If the reserve is to have serious value for baseline research it must be that safe haven.

The Santa Cruz Bird Club in a letter from current president, Jeff Davis (Appendix VIII) supports this conclusion.

Sensitive species that have been known to breed at YLR and that would be adversely affected by human and dog disturbance include the gray fox and bobcat. According Dr. Michael Soulé, both species' presence are considered critical to prevent the severe depredation of ground and shrub nesting birds by feral cats and invading red foxes. Over 25 bird species nest at YLR. Nesting bird species most susceptible to serious impact from

disturbance include mallard duck, Bewick's wren, Swainson's thrush, wrenit, orange-crowned warbler, common yellowthroat, song sparrow, white-crowned sparrow and red-winged blackbird (J. Davis, personal communication, 1999). These are birds whose continued presence gives the reserve a reasonable complement of bird diversity. If we lose them or even if we lose their normal nesting behavior the reserve loses much of its value.

Finally, public access directly to the beach would be neither safe nor practical due to almost vertical cliffs on each side of the beach. Access across the dunes will quickly eradicate fragile coastal strand vegetation. In addition, it should be noted that it is not physically possible to fence or isolate the beach from the remaining lagoon areas. Any general (unrestricted) public access would inevitably lead to path widening and the creation of additional cross paths contributing to habitat breakup and degradation (as seen from the ad hoc paths that already exist due to the trespassing), as well as erosion and sedimentation into the Lagoon. Lagoon water quality, which is presently good, would suffer, adversely affecting marsh biota and use of the Lagoon for water quality research.

#### 6. Wetland Perimeter Trail

A condition requiring LML to investigate a wetland perimeter trail was a part of the 1976 CCC permit P1859, but was later eliminated by the Commission in 1981 with Amendment 5. The same arguments against a perimeter access trail made by LML and CCC staff in 1981 apply today. Trail development around the north and west perimeter of the lagoon is impossible because the YLR property line extends only up to the rim of the lagoon. A trail on the steep, shrub covered slopes would cause significant habitat degradation and severe erosion. In most areas trail construction would be impossible due to extremely steep terrain. In addition impacts to avifauna noted previously would be significant with human and dog presence around the entire Lagoon perimeter. The adjacent property owner, Younger-Goodes, have indicated they will not permit a coastal trail on their property due to conflicts with agricultural use of that land.

#### 7. Trail Linkages between McAllister Way and YLR Overlooks

The proposed access connections between YLR, LML and UC owned Terrace Point are shown in Appendix IV. Coastal access routes are proposed that will connect overlooks on the east perimeter of YLR to LML, the Seymour Center and Terrace Point properties (See Response to Condition 7, the Long Marine Lab Interim Access Plan, for details). Trails will be fully shielded from view from YLR species by berms, fences, thick vegetation or other appropriate (and hopefully attractive) means.

(Excerpt from LML response to condition 7): "As indicated on the attached Exhibit A, free public access for pedestrians will be provided to the majority of the this coastal site during daylight hours every day of the year. Pedestrians would enter onto the university's Long Marine Laboratory property from the intersection of Delaware Ave. and Shaffer Road by way of the Delaware Extension driveway to McAllister Way, then along McAllister Way southward past the California Department of Fish & Game Marine Wildlife Center, the National Marine Fisheries Service Laboratory, portions of Younger Lagoon Natural Reserve, and on to the Seymour Center at Long Marine Lab. At the

Seymour Center, the through access route will bifurcate. During the hours of operation of the Seymour Center, pedestrians would either continue southward on McAllister Way to the ocean bluff (Overlook C), then proceed eastward along the top of bluff on the seaward side of the Seymour Center and around the seaward side of Overlook B, or would proceed southeastward around the east side of the Seymour Center to the ocean bluff, and then proceed eastward along the top of the bluff. For security of the LML seawater system, the improvements at Overlook B, and the restored native coastal prairie vegetation on the seaward side of the Seymour Center, the route directly to the terminus of McAllister Way and along the bluff directly seaward of the Seymour Center would be closed during times that the Seymour Center is closed. There is no way down the 35-foot seacliff, nor is there any beach along this section of ocean bluff. To the east, at the boundary of the DeAnza Santa Cruz mobile home park, pedestrians would proceed northward along the mobile home park to Delaware Ave. Circulation along this route could occur in either direction. Access would be limited to daylight hours. A series of signs would indicate this accessibility."

We understand there is potential to connect this access inland and across the RR tracks to link up to a public trail from Santa Cruz to Wilder State Park. There is also the walking access to the beach through the De Anza Mobile Home Park to the beach properties of the University of California. The UC owned property extends from mean high tide to the base of the bluff, directly below the DeAnza property. These two small terraces are currently used extensively by the public and accessed most commonly through Natural Bridges State Park. There is no physical access westerly to LML or YLR due to tides, sea caves and the absence of any beach or accessible rock shelf.

#### 8. Public Access Overlooks

The following overlooks are either existing or proposed (and are shown in Appendix IV):

A & B are new overlooks developed by and adjacent to the LML Seymour Discovery Center and are described in the Interim Access Plan (Condition 7). A permits viewing of the seasonal wetland and B permits another wide-angle view of the entire Monterey Bay.

C Blufftop at the end of McAllister Way on LML property: An existing overlook is located at the end of McAllister Way which allows exceptional views of the Monterey Bay National Marine Sanctuary and the north and south coast. Many visitors currently use this site, and its proximity to the Seymour Visitor Center makes it an ideal overlook. It is fully handicapped accessible and open during the hours that the Seymour Visitor Center is open (normally 10-5, T-SU). Fencing would keep visitors outside the secure areas within LML, away from steep bluffs and out of YLR. (Corresponds to CCC suggestion #1)

D LML-YLR beach/marine mammal pool overlook on top of the berm. This is an existing public access, handicapped accessible, built as a cooperative project between LML and YLR by the California Conservation Corps. It overlooks both LML and YLR and therefore affords opportunities for docent interpretation both of the marine mammal research on the LML side, and Monterey Bay, front and back beach, seacliff and lower lagoon portions of YLR on the other side. There are existing interpretive

panels on the dolphin research and plans exist for new YLR interpretive panels on the west side of the overlook. Access to this overlook is by docent-guided tour only through the center of the LML facilities. Public access has and will be carefully controlled to prevent adverse impacts to the marine mammals, marine mammal research efforts, and YLR wildlife. (Corresponds to CCC suggestion #2)

E YLR upper lagoon overlook north of the LML Center for Ocean Health building (under construction). This is also an existing public access served by a temporary path and a bench at the overlook site. The site allows views of the back beach dune, lower and upper lagoon (both arms) and lagoon scrub side slopes. Although a temporary trail and open observation area exist, plans are in preparation to build a fully handicap accessible trail and a 'duck blind' observation shelter that will permit tour groups, students, researchers and permitted birdwatchers to observe the wildlife without disturbing it. The trail within YLR will be screened with native shrub species and will connect to a path to the Seymour Center. The observation area will have interpretive panels and areas for mounting spotting scopes (See Appendix IX for a conceptual drawing by Dr. Ken Norris). This observation area would be open to the general public on docent-guided tours and by application for individual birdwatching activities. (Corresponds to CCC suggestion #4)

F Observation area on McAllister Way just south of existing greenhouse structure. This site affords a possible location for additional views into the upper reserve. A sheltering structure (similar to the E structure but smaller and simpler) would need to be installed to permit easy viewing while protecting birds from disturbance. An interpretive panel would be installed with visitor guidelines to limit disturbance, and pictures of the most common birds of the lagoon. This observation site would be accessible to casual public viewing during daylight hours. YLR staff would monitor potential disturbance to wildlife and alter the structure or location if wildlife disturbance became a problem. (Corresponds to CCC suggestion #5)

Each overlook will have appropriate signage and interpretive panels that identify the major natural features that can be observed. Paths where necessary, especially to site E, will be marked appropriately and will be fully handicap accessible according to ADA regulations. The four suggested observation locations allow the public to view the entire Lagoon ecosystem. Other observation points indicated in previous maps of the area (i.e. suggestions 3 & 6) are either not feasible due to LML security concerns, or would cause significant wildlife disturbance. Some of these sites cannot be made accessible by ADA standards without extensive grading and habitat loss. Moreover, these additional sites afford no additional views of YLR not provided by the four proposed.

#### 9. YLR Fencing Plan

Existing and proposed fencing and gates are shown in Appendix X and in the response to Condition 7.

### *Existing Fencing*

The response to Condition 7 contains a complete list of all the previously obtained permits for fencing and a detailed description of fencing installed to date. Basically the north and west borders of the Reserve, adjacent to the Younger-Goode agricultural fields, are fenced with barbed wire. On-going agricultural operations by the property lessee also protect YLR from trespass. Existing berms and fences have also been constructed on the east Reserve boundary adjacent to LML. Berms or solid fencing between LML and other developments and the Reserve are very important as they reduce noise, light and motion impacts to wildlife caused by vehicles and people.

It should also be noted that temporary construction fencing is required for all construction activities adjacent to YLR in order to prevent inadvertent encroachment into the Reserve. LML and YLR staff monitor this fencing to insure compliance.

### *Proposed Fencing*

Fencing around the YLR property is complete except for a board fence (similar to that behind the CDFG oiled wildlife facility) behind the planned UCSC Predatory Bird facility, the open area very close to McAllister Way and across from the NOAA facility (currently protected by shadecloth on the chainlink security fence). We hope that the density of the willows at the upper end of the east arm of the reserve will be sufficient to protect that area without additional fencing.

Details on proposed fencing for LML and the Seymour Center are in response #7 and in a map (Appendix X)..

### **SUMMARY AND CONCLUSIONS**

YLR, operated as a UC/NRS natural reserve, closed to general public access, provides service in all three categories of the UC mission (teaching, research and public service) in ways not possible on lands unprotected from uncontrolled human disturbances. Further it supports the California Coastal Commission mandate to protect the coastal habitats for sensitive species.

We ask for Coastal Commission support for continued closure of YLR to the public except for the controlled access we have described, and for support of the Seymour Discovery Center of the LML which shares our mission of public education about research, science and conservation of natural resources. This request from the UCSC Natural Reserves Office is supported by the Director of the NRS, Dr. Alex Glazer, in his letter (Appendix XI).

## APPENDICES

- I. Current Younger Lagoon Reserve Management Plan
- II. NRS/Younger Lagoon Reserve fact sheets (plain)
- III. Younger Lagoon Reserve species lists:
  - a. Plants
  - b. Birds
  - c. Mammals
  - d. Amphibians and Reptiles
- IV. LML-YLR Public Access plan – A map
- V. Four letters (Doyle, Penaat, Briggs, & Norris) from original 1981 submission for closure of YLR
- VI. Disturbance and impacts of birds – A reference list
- VII. Additional references obtained by John Gilchrist on human disturbance and wildlife
- VIII. Letter from Santa Cruz Bird Club (J. Davis, President)
- IX. Conceptual drawing (by Ken Norris) of the "duck blind" overlook
- X. LML-YLR Fencing plan - Two maps (see also response to condition #7)
- XI. Letter from Natural Reserve System Director Alexander Glazer

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COAL OIL POINT RESERVE  
NATURAL RESERVE SYSTEM



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Chairwoman Meg Caldwell and Commissioners  
California Coastal Commission  
c/o Charles Lester, Deputy Director  
Central Coast District  
725 Front Street  
Santa Cruz, CA 95060

**RECEIVED**

JAN 25 2006

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

Re: University of California, Santa Cruz,  
Coastal Long Range Development Plan for Marine Science Campus---  
Esp. Younger Lagoon Reserve

January 22, 2006

Dear Madame Chair and Commissioners:

Public access is clearly an important aspect of the cultural heritage of Californians and the Commission has done an admirable job preserve access to the public in cases where individuals wished to have access for private recreation. However, the coastal act specifically states that public access can be curtailed in cases where environmental impacts are clear. Coastal areas free from human disturbance rare. Those that are left are particularly important because they provide opportunities to study coastal ecosystems, which leads to better management of natural resources. The Younger Lagoon Reserve (YLR) is one such area. It is an element of the UC Natural Reserve System that has set aside areas for research and education.

The staff recommendation to open YLR to public access is troubling on two levels. First, it appears to be posited as a mitigation to coastal development. This is illogical because when the CCC mitigates the impacts of development with impacts from recreation, coastal habitats take a double hit. Measures to further protect and restore YLR would seem a much more logical means of mitigation. Second, it is much easier to achieve preservation by protecting areas that already enjoy protection than to try to reverse impacts to degraded areas. Once YLR develops a user base, action to restrict their impacts will be met with resistance.

I am particularly aware of these issues because I manage a coastal reserve, in some ways similar to the YLR. In 2001, the California Coastal Commission (CCC) approved our plan to fence parts of the beach to protect habitat for the threatened Western Snowy Plovers. The consequences of protecting the beach

were unprecedented. By simply removing human and pet disturbance from their habitat, the plovers dramatically increased in numbers in the wintering and in the breeding season. Other shorebirds increased 4 times in numbers as well. These results were found by intense research intended on understanding the effect of human disturbance on shorebirds (references to the published manuscripts are listed below). This example shows direct evidence that public recreation on the beach can create disturbance to wildlife sufficient to prevent them from inhabiting or breeding in the area.

The staff recommendation to open the beach at YLR to the public could cause a reverse scenario of the one described above. By increasing public access to the beach at the YLR, the California Coastal Commission will likely create a situation incompatible with the preservation of the beach and coastal habitats at YLR. If public access is provided at YLR, this protected and rich coastal lagoon and beach will become yet another recreational beach with the constant problems of human disturbances to shorebirds. There are too many beaches that have shown these patterns: (1) shorebirds stop using the beach to rest and feed, (2) trash from beach goers attract crows and ravens, which prey on many native species, (3) the dune and upper beach vegetation is trampled and eventually removed, causing beach erosion and changes to the tidal regime of the lagoon, (4) pets trespass to swim in the lagoon dropping feces and flea-treatment products that pollute the water.

There aren't many beaches left on the California Coast: where wildlife can be undisturbed. Beaches are important habitats that support a unique fauna and flora and migrating shorebirds. Undisturbed beaches are necessary for shorebirds to rest during migration and to feed. In most beaches in California, shorebirds cannot feed well because recreation disturbs them and because the habitat degrades with continued trampling, trash, and beach grooming.

Other than federal naval bases, most beaches in coastal California are suffering tremendous pressure from development and beach recreation. The California Coastal Commission is the single most important agency that can provide the protection necessary to protect California's native coastal fauna and flora. The Commission should support efforts to protect beaches, particularly this case of the YLR, which has a mission of preservation, education, and research.

The best way to protect the beach and the lagoon at the YLR is to restrict human access to the beach. If beach access is provided, it is hard to imagine how one would effectively protect the habitat behind the beach, the lagoon and coastal scrub. This is because the beach is an unstable landscape, very difficult to be partially fenced-off. Winter storms and daily tides can destroy fences that protect the lagoon mouth, leaving the lagoon and the rest of the reserve without protection.

For the reasons mentioned above, I urge the Commissioners to reject the staff recommendation to allow unrestricted public access at YLR. To protect this coastal ESHA, the commission should continue to support the prohibition of unrestricted public access to the sandy beach area above the mean high tide line.

Cited literature:

Lafferty, K.D. 2000. **Status, trends and conservation of the western snowy plover with a focus on the Devereux Slough population at Coal Oil Point Reserve, Santa Barbara County, CA,**

Museum of Systematics and Ecology, University of California, Santa Barbara, Santa Barbara, CA.

Lafferty, K.D. 2001a. **Birds at a southern California beach: seasonality, habitat use and disturbance by human activity.** Biodiversity and Conservation 10: 1-14.

Lafferty, K.D. 2001b. **Disturbance to wintering western snowy plovers.** Biological Conservation 101: 315-325.

Kevin D. Lafferty, Darcie Goodman and Cristina P. Sandoval 2005 (in press). **Restoration of breeding by snowy plovers following protection from disturbance.** Biodiversity and Conservation. Online at: <http://www.kluweronline.com/issn/0960-3115>

Sincerely,



Cristina Sandoval, PhD  
Director of the Coal Oil Point Reserve

Cc: Steve Davenport, UCSC

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**RECEIVE**



**Island Conservation**  
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JAN 25 2006

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

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*Dedicated to preventing extinctions and protecting natural ecological and evolutionary processes.*

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23 January 2006

Chairwoman Meg Caldwell and Commissioners California Coastal Commission c/o Charles Lester, Deputy Director Central Coast District  
725 Front Street  
Santa Cruz, CA 95060

Dear Ms. Caldwell;

I am writing regarding the Coastal Commission staff report recommending an opening of the beach at the mouth of Younger Lagoon Reserve to the public.

Island Conservation is a Science-based non-profit organization dedicated to preventing extinctions and protecting natural processes on islands. Much of our work focuses on the protection of seabirds, shorebirds and other birds. Because of this and because of my own nearly three decade long experience with this beach, I am commenting on Younger Lagoon and the adjacent beach even though they are not islands.

Due to the actions of the Coastal Commission, California has some of the world's most undeveloped coastlines. Despite this excellent history, the huge population adjacent to the coast has dramatically increased visitor pressure on fragile natural resources. Consequently, there are very few beaches on the California coast available to birds without constant disturbance by people and their pets. Locally, many of the beaches in town are doubly impacted by people and dogs (both legally and illegally using the beach).

This affects seabirds which roost on undisturbed beaches and shorebirds which use them for feeding. California is blessed with high productivity offshore waters which can support large populations of seabirds, however there are relatively few offshore islands and rocks for them to roost on. Consequently, they are surprisingly dependent on beaches and coastal cliffs for roosting. Frequent human use of beaches seriously degrades their suitability as habitat for roosting seabirds.

California is also an important wintering location for many shorebirds which migrate from high latitude breeding grounds. The greatest threat to these high latitude breeders is habitat destruction and disturbance on their wintering grounds. Many of these shorebirds undertake single-flight, long distance migrations during which they burn through their entire fat reserves. When they land here in California and before they leave, they are very dependent on rich, relatively undisturbed foraging grounds for survival.

There are also a number of other birds (waterfowl, waders and resident shorebirds that use the beach and adjacent Younger Lagoon that greatly benefit from a lack of human disturbance.

Younger Lagoon Beach is particularly valuable habitat for all these birds because it is rarely visited by people and adjacent to a coastal freshwater wetland (most of which have already been lost to development in California).

I have been visiting the Younger Lagoon Beach area since the late 1970's. After the Marine Labs were built, rapidly increasing use of the beach by people appeared to seriously decrease the use of the beach seabirds, shorebirds and other waterbirds. After the beach and lagoon were closed to the public in about 1980, the beach and adjacent lagoon became increasingly valuable and habitat to birds. This, in turn, has supported the use of the lagoon and beach area by predators such as bob cats and coyotes (which was also greatly facilitated by the natural restoration of the ag lands on what is now UCSC property).

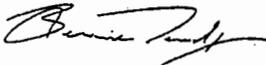
Allowing public access to this relatively pristine beach would negatively impact seabirds, shorebirds and other wildlife, thus exacerbating the impacts of the proposed UCSC development. Keeping the beach closed, would help mitigate these impacts.

I very much appreciate the Coastal Commission's ongoing efforts to protect and increase public access to California's beaches. Private beaches are not in the interest of wildlife or the public and should be made publicly accessible. At the same time, there is a need for beaches, such as Younger Lagoon, that are refuges for birds and other wildlife.

Finally, it is important to consider how the public is best served by this beach. Currently, thousands of people visit the overlook while touring the marine labs and can look down on a pristine beach and generally see roosting seabirds and foraging shorebirds. This is a rare experience and pleasurable experience. Opening the beach to the public would rob these thousands of visitors of this experience and replace it with the much more common experience of looking down on a typical human impacted beach.

Thank you for considering maintaining the existing closure of Younger Lagoon Beach.

Sincerely,



Bernie Tershy,  
Executive Director

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

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SANTA CRUZ, CALIFORNIA 95064

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JAN 25 2006

CALIFORNIA  
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CENTRAL COAST AREA

Chairwoman Meg Caldwell and Commissioners  
California Coastal Commission  
c/o Charles Lester, Deputy Director  
Central Coast District  
725 Front Street  
Santa Cruz, CA 95060

Re: University of California, Santa Cruz,  
CLRDP for Marine Science Campus, Younger Lagoon Reserve

January 22, 2006

Dear Coastal Commissioners:

I am writing to support the University of California's proposed continued closure of the Younger Lagoon Reserve Beach. While I generally agree that public access is important for the benefit of all Californians, it is also a public benefit to have some areas – particularly scarce undeveloped sandy beach habitat – free of human influence. As a marine biologist I have participated in several analyses of the impact of public access on sensitive species, particularly shorebirds. The overwhelming results of my own work as well as published literature demonstrates that public presence has a profound impact on sensitive sandy beach species – from shorebirds to dune plants. The opportunity to study undisturbed sandy coastlines is extremely rare and critical if we are to understand human impacts and design feasible public policy to ameliorate these impacts. As a research reserve Younger Lagoon provides just such an opportunity. This, combined with its close proximity to the larger Wilder Ranch protected sandy habitat provides for both the conservation of locally sensitive species (Snowy Plovers, Tidewater Gobies) as well as the opportunity to conduct long-term studies of how closure benefits these habitats.

In addition to these conservation benefits, the Younger Lagoon Reserve provides a unique educational opportunity for both graduate and undergraduate education and research. I regularly use the protected sandy beach area as part of my undergraduate course in ecological field methods. The undisturbed sands paint a clear picture of the many species that use this habitat – from bobcats to raccoons to shorebirds to seabirds. Indeed, it is one of the best places to find roosting cormorants and breeding pigeon guillemots. My students have conducted research projects on all of these species. The close access to the lagoon adjacent to the Center for Ocean Health provides an unparalleled opportunity to teach hands-on ecological research and conservation. Once open to public access this unique educational opportunity disappears.

It is undeniable that increased public access will seriously degrade the quality of the Reserve. It is almost inevitable that shorebird and seabird use of the beach will diminish, its importance as a corridor

between the ocean and the Majors Creek region will disappear, the quality of the active restoration of native plants conducted by the University will seriously suffer (with trampling and introduction of non-native pest species such as hemlock and iceplant), and the use of the beach by ravens and crows (which follow human use) will increase predation rates on everything from shorebirds and songbirds to reptiles. These factors will diminish the value of the Lagoon as sensitive coastal habitat and a research and education opportunity.

In short, I strongly disagree with the Commission Staff's recommendation to open the Younger Lagoon Reserve to public access. Such an action will reverse decades of careful restoration and increased habitat quality for native and non-native species. From an academic point of view, an unprecedented teaching and education resource will be lost for what is almost certainly a modest opportunity for public access (the beach is less than 50 meters long!). I hope the California Coastal Commission recognizes these important additional public benefits and allows the University of California to permanently close the beach to public access. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Donald A. Croll". The signature is written in a cursive, flowing style.

Donald A. Croll  
Associate Professor



# United States Department of the Interior



**RECEIVED** U.S. FISH AND WILDLIFE SERVICE  
Ventura Fish and Wildlife Office  
2493 Portola Road, Suite B  
Ventura, California 93003

DEC 12 2005

IN REPLY REFER TO:  
PAS 2507.3830.4695

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

December 8, 2005

Martin Carver  
Coastplans  
105 Francis Court  
Santa Cruz, California 95062

Subject: Coastal Long Range Development Plan for the University of California Santa Cruz Marine Science Campus at Terrace Point, Santa Cruz County, California

Dear Mr. Carver:

This letter is in response to your recent correspondence regarding the Coastal Long Range Development Plan (CLRDP) for the proposed University of California Santa Cruz (UCSC) Marine Science Campus at Terrace Point, Santa Cruz County, California. The CLRDP is intended to guide the development of a marine research center, support facilities and housing, equipment storage and maintenance areas, parking areas, and expansion of the existing seawater system. The project area comprises approximately 98 acres located at the western edge of the city of Santa Cruz. The federally threatened California red-legged frog (*Rana aurora draytonii*) occurs along the northern margin of the proposed project area, and the endangered tidewater goby (*Eucyclogobius newberryi*) occurs in Younger Lagoon immediately west of the proposed project area.

On August 23, 2005, we received a letter from you dated August 22, 2005, which provided a revised version of Chapter 5 (Long Range Land Use Development Plan) of the CLRDP. On October 12, 2005, we received a letter from you dated October 11, 2005, in which you requested our comments on the CLRDP and provided additional information regarding several issues discussed between Roger Root of my staff and Bill Davilla of Ecosystems West Consulting Group during a visit to the proposed project site on October 4, 2005. In general, the U.S. Fish and Wildlife Service (Service) supports the protective measures proposed in your August 23 and October 12, 2005, letters. However, there are several points and concerns that we believe warrant clarification. We offer the following comments as technical assistance regarding the subject project.

The Service's responsibilities include administering the Endangered Species Act of 1973, as amended (Act), including sections 7, 9, and 10. Section 9 of the Act prohibits the taking of any endangered or threatened species. Section 3(18) of the Act defines take to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Service regulations (50 CFR 17.3) define harm to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing

essential behavioral patterns, including breeding, feeding, or sheltering. Harassment is defined by the Service as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. The Act provides for civil and criminal penalties for the unlawful taking of listed species.

The California red-legged frog has been extirpated or nearly extirpated from 70 percent of its former range. Ongoing causes of decline include direct habitat loss due to stream alteration and disturbance to wetland areas, indirect effects of expanding urbanization, and competition or predation from non-native species.

California red-legged frogs spend most of their lives in and near sheltered backwaters of ponds, marshes, springs, streams, and reservoirs. Deep pools with dense stands of overhanging willows (*Salix* sp.) and an intermixed fringe of cattails (*Typha* sp.) are considered optimal habitat. Eggs, larvae, transformed juveniles, and adults also have been found in ephemeral wetlands, creeks, and drainages, and in ponds that do not have riparian vegetation. Accessibility to sheltering habitat is essential for the survival of California red-legged frogs within a watershed, and can be a factor limiting population numbers and distribution.

During dry periods of the year, the California red-legged frog is rarely encountered far from water. However, during periods of wet, mild weather, starting with the first rains of fall, some individuals of this species make overland excursions through upland habitats. Some California red-legged frogs have moved long distances over land between water sources during winter rains. Adult California red-legged frogs have been documented to move more than 3.2 kilometers (km) in northern Santa Cruz County "without apparent regard to topography, vegetation type, or riparian corridors" (Bulger et al. 2003). Most of these overland movements occur at night.

Juvenile (sub-adult) California red-legged frogs have been documented on, and directly adjacent to, the proposed project site (Ecosystems West Consulting Group 2002). The specific location on the project site where California red-legged frogs have been documented is a seasonal wetland and culvert outfall at the northern edge of the project site adjacent to the Southern Pacific Railroad easement. The nearest known reproductive sites for California red-legged frogs are at Wilder Creek, approximately 1.4 km west of the project area, and at the Arboretum Pond on the UCSC main campus, approximately 2.8 km north of the project area. California red-legged frogs have also been documented in the past at Antonelli Pond, approximately 135 meters east of the project area. Because California red-legged frogs occur in other areas in the vicinity of the city of Santa Cruz, it is likely that they disperse to the proposed project site from adjacent populations. Some California red-legged frogs disperse away from the site at which they were born or have bred. Some dispersing individuals eventually return to their home sites while others may find and use new sites for breeding.

### **Protection of potential California red-legged frog dispersal routes on the proposed project site**

During the period from the first rains of fall until conditions become dry in the spring, individual California red-legged frogs can be found in upland locations, often several hundred meters from streams or ponds. Such individuals are secretive during the day, taking refuge in areas such as leaf litter, holes, and crevices, or wet areas such as seeps or bogs. These individuals may be adversely affected during ground disturbing activities or ongoing use of the proposed developments.

Whether California red-legged frogs dispersing through upland habitats may be affected by construction or operational activities will depend on the proximity of these activities to upland habitats, the proximity of upland habitats to riparian or aquatic habitats, and the timing, duration, type, and intensity of activities involved. For example, during the dry summer months, California red-legged frogs are unlikely to be found in dry, upland habitats, unless such habitats are adjacent to riparian or aquatic habitats.

Dispersal of individual California red-legged frogs plays an important role in metapopulation dynamics and therefore the persistence of populations. While California red-legged frogs can pass many obstacles, and do not require a particular type of habitat for dispersal, a potential dispersal route connecting aquatic habitat sites must be free of barriers (i.e., a physical or biological feature that prevents frogs from dispersing beyond the feature) and of sufficient width. The location where California red-legged frogs have been documented on several occasions at the northern edge of the project site may be a point along a dispersal route between breeding sites for the species.

Many studies have attempted to elucidate the value and adequate size of dispersal routes or corridors as a means of maintaining ecological connectivity between areas of suitable habitat while avoiding negatively influencing dispersing individuals of various species (Beier and Noss 1998, Bulger et. al 2003, Fahrig and Merriam 1994, Haddad 1999, Pope et. al 2000, Semlitsch 1998, Semlitsch 2000, Semlitsch 2003, Vos and Chardon 1998). Designating or creating movement corridors to avoid adverse effects to California red-legged frog habitat in areas scheduled for development is problematic. However, when an obvious corridor exists between two aquatic sites, California red-legged frogs are likely to use the route (Bulger et. al 2003).

UCSC proposes to avoid, protect, and enhance potential dispersal corridors for California red-legged frogs and resource protection areas as part of the proposed project. The Service supports and encourages these elements of the proposed project. These features are shown graphically in figure 5.2 of the CLRDP included in your August 22, 2005, letter. Specifically, one of the protected corridors is proposed along the northern boundary of the project site; this feature would be approximately 60 meters wide beginning at the intersection of Shaffer Road and the railroad easement. UCSC's proposal also includes a commitment to maintain access for wildlife across Shaffer Road at two locations on the eastern edge of the project area (i.e., CLRDP

implementation measures 5.1.4 and 5.1.5 in your October 11, 2005, letter). The Service supports this proposal as well.

### **Protection of known aquatic habitat for the California red-legged frog on the proposed project site**

Considering the documented presence of California red-legged frogs on several occasions inside the northern boundary of the project area, construction and operational activities adjacent to this site have the potential to directly injure or kill individual California red-legged frogs if they seek shelter in, or disperse through, this area. This location contained ponded water as late as October 4 in 2005 (R. Root, Service biologist, pers. observation). In addition, the presence of standing water at this location appears to be influenced not only by seasonal precipitation, but also by water input from upslope irrigation.

Based on the distribution of California red-legged frog occurrences and habitat across the landscape in the vicinity of Terrace Point, individuals of the species may occur on the northern part of the project area at various times throughout the year. Recent research suggests that protection of California red-legged frog populations on a landscape level is likely to be achieved through protection of suitable habitat elements within at least 100 meters of occupied aquatic sites (Bulger et. al 2003). Therefore, because the proposed project involves construction and operational activities within 100 meters of the site where the species has been documented at the northern edge of the project area, we believe these activities may result in take of California red-legged frogs.

### **Stormwater management system**

California red-legged frogs spend considerable time resting and feeding in riparian and wetland vegetation when it is present. Most of the time, when they are not in the water or otherwise making overland excursions, individual California red-legged frogs can be found within two or three hops of the water, resting secretively and feeding on land underneath a canopy provided by herbaceous plants and a variety of moisture-loving softwoods such as willows. Therefore, it is reasonable to conclude that the moisture and camouflage provided by the riparian plant community provide suitable foraging habitat and may facilitate dispersal.

If the proposed stormwater management system creates or enhances habitat conditions that are conducive to the species' presence (e.g., standing water during breeding or dispersal, riparian or wetland vegetation for cover, etc.), these features are likely to attract California red-legged frogs that otherwise may not occur at these locations. Under such circumstances, the proposed stormwater system maintenance activities (e.g., vegetation and sediment removal) may displace, injure, or kill individual California red-legged frogs.

If the topographic depressions and seasonal wetlands used and enhanced by the stormwater management system retain surface water for sufficient periods to facilitate California red-legged frog reproduction, sediments eroding into these habitats could directly affect individuals by

killing embryos and slowing the growth of larvae. Sedimentation and runoff can also negatively influence hydrology and habitat quality, thereby rendering habitat unfit for adult, juvenile, and larval California red-legged frogs. Filling of seasonal ponds, pools, and similar habitats can result in the death, injury, or harm of California red-legged frogs through loss of vegetative and aquatic cover and the loss of breeding or sheltering sites. These effects could occur within the proposed project area or in areas downstream of the proposed project if sediment loads are carried downstream. If sediment loads are carried downstream and off the project site, tidewater goby individuals or habitat in Younger Lagoon could also be adversely affected.

Exemptions to the prohibitions against take in the Act may be obtained through coordination with the Service in two ways. If a project is to be funded, authorized, or carried out by a Federal agency and may affect a listed species, the Federal agency must consult with the Service, pursuant to section 7(a)(2) of the Act. If the proposed project does not involve a Federal agency, but may result in the take of a listed animal species, the project proponent should apply to the Service for an incidental take permit, pursuant to section 10(a)(1)(B) of the Act. To qualify for the permit, you would need to submit an application to the Service together with a habitat conservation plan (HCP) that describes, among other things, how the impacts of the proposed taking of federally listed species would be minimized and mitigated and how the plan would be funded. A complete description of the requirements for a HCP can be found at 50 CFR 17.32.

Thank you for the opportunity to participate in the planning process for the UCSC Marine Science Campus at Terrace Point. We are available to discuss the proposed project and its expected impacts further to determine if UCSC will need a permit or exemption to avoid violating the take prohibitions in section 9 of the Act. If you have any questions regarding these comments, please contact Roger Root of my staff at (805) 644-1766, extension 336.

Sincerely,



David M. Pereksta  
Assistant Field Supervisor  
Santa Cruz/San Benito/Monterey

cc: Dan Carl, California Coastal Commission

## REFERENCES CITED

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Watershed Systems

Curry, Ph.D., P.G.

Hydrology - Geology - Soil Science

**RECEIVED**

NOV 22 2005

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

Robert

600 Twin Lanes, Soquel, Calif. 95073  
831 426-6131; FAX 426-9604; curry@ucsc.edu  
field: 760 932-7700

Nov 23, 2005

Charles Lester, Deputy Director of the Central Coast District  
Office, California Coastal Commission  
725 Front Street, Suite 300  
Santa Cruz, CA 95060-4508

By FAX (831) 427-4877

Re: Terrace Point Coastal LRDP- UCSC

Gentlepeople:

I am addressing a single issue among the many controversial points that you must evaluate for your staff recommendations. That issue is the definition of wetlands used by UCSC's consultants.

The public is being asked by UCSC through its Coastal LRDP EIR to accept a completely non-standard definition of wetlands. Non-standard definitions are allowed under the federal interagency rules where there are special conditions and where the exceptions can be justified. It is imperative that the applicants accurately justify their request for any exceptions to the standard 3-element rule.

The Huffman-Broadway Group (HBG) who conducted the wetland delineation for UCSC developed a painfully obtuse justification for their decision to eliminate several areas of potential wetland from consideration either under what they term the "Corps of Engineers rules" and those subject to the California Coastal Act<sup>1</sup>. In my opinion, based on my work with the U.S. Environmental Protection Agency and the State of California Water Quality Control Boards on matters of wetland delineation, the conclusions of the HBG have not met the criteria for justification and cannot meet that criteria. I believe that the Coastal Commission would be in error if they accept the final delineation as proposed by HBG.

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<sup>1</sup> Huffman-Broadway Group, Inc., *Investigation of the Geographic Extent of Wetlands and Other Environmental Sensitive Habitat Areas on Terrace Point and Younger Lagoon Reserve*, University of California, Santa Cruz. Prepared for the University of California, Santa Cruz. April 2002. Larkspur, California 46 pp. plus

Specifically, HBG rejects soil color (hue and chroma) as a criterion for hydric soil classification because they contend that the dark colors of some of the soils that my investigations found to be seasonally reducing in eH was a condition inherited from prior agricultural use of the site. The three-agency federal rules do allow the delineator to reject soil color as diagnostic tool where the naturally dark colors mask soil organic content. The most common site condition for dark soils that are not dark because of organic matter is that of soils high in dark volcanic glass. Other dark minerals can also mask organic accumulations in soil. But HBG believes these Terrace Point soils are dark because of accumulations of agricultural crop residues, presumably left from the 1960's when this site was a brussel-sprout field. I mapped these soils in the 1960's and dug many pits to verify that they were organic rich where seasonally ponded water drained slowly due to perched water tables.

It matters not at all what the source of the dark organic matter is, so long as it is reducing and so long as those reducing conditions are reflected in the seasonal vegetation. If the soils are reducing, have standing or shallow groundwater and some season, and if plants are growing at that season, then the three criteria are present for wetland classification. I believe that at least a major portion of the soil organic matter is inherited from long-standing seasonal wetland conditions prior to agricultural use. HBG believes it is agriculturally induced. But in either case, the soils meet the criterion for seasonally reducing.

Further confounding the HBG delineation of statutory wetlands at Terrace Point is their contention that some of the sites that had surface saturation or shallow saturation during winter months, and would otherwise be classed as meeting the wetland hydrology criterion, were simply perched water tables or sites of very slow infiltration capacity where water accumulated near the surface but not at depth. In fact, that is exactly correct and is, indeed, a valid criterion for wetland hydrology. The Terrace Point soils are derived from deposits on a marine terrace cut by waves on the Santa Cruz Mudstone. That shallow underlying bedrock deposit is virtually impermeable to seasonal precipitation. The overlying beach deposits are thus subject to seasonal standing water that slowly moves seaward along the 0.5-degree gradient on the wave-cut bedrock surface and that saturates much of the terrace deposit and leads to rapid weathering of the beach sands to form clay minerals that plug and restrict water movement. This is what creates local perched water tables or zones of slow downward percolation. That is precisely the condition that is considered wetland hydrology. The local wetlands are not isolated as defined under the SWANCC decision<sup>2</sup> because the waters are interconnecting and flow to the sea during large storm events in wet

---

<sup>2</sup> Based on the Supreme Court ruling in *Solid Waste Agency for Northern Cook County v. U. S. Army Corps of Engineers* (SWANCC) concerning the Clean Water Act jurisdiction over isolated waters (January 9, 2001), nonnavigable, isolated, intrastate waters based solely on the use of such waters by migratory birds are no longer defined as waters of the United States. Jurisdiction of non-navigable, isolated, intrastate waters may be possible if their use, degradation, or destruction could affect other waters of the United States, or interstate or foreign commerce.

years. Further the California Coastal Act rules protect isolated wetlands in the Coastal Zone.

Finally, Huffman proposes that some of the plants that exist in wetland pockets and areas on the Terrace Point site are not all wetland indicators because, although so classified, they also exist in uplands or are not indicators in this particular site.

HBG can, under the three-element rules currently in force, dismiss one or more criteria for special reasons. Indeed, plants can be false indicators. The plants that are wetland indicators on the 1<sup>st</sup> (lowest) marine terrace throughout coastal Monterey Bay and San Mateo County are widespread and tolerant of many conditions. But the bottom line question that the Coastal Commission must ask is "Do the conditions at Terrace Point reflect seasonal reducing conditions that improve or maintain water quality?". With high organic matter in soils and seasonally reduced infiltration of ample rainfall, are the wetland-indicator native plants found at Terrace Point indicators of wetland conditions?

HBG proposes special conditions for Terrace Point. The site was once agricultural fields. The soils are high in clay content. The clay content varies laterally, possibly due to past land uses. Saturated or near saturated soil conditions within the rooting zone vary from site to site and year to year. Some of the indicator species found on site clearly grow in non-saturated sites. The dark surface soils may reflect past conditions. The growing season is 365 days long so the coincidence of the three criteria may not reflect conditions throughout the year. But none of these are valid excuses for abrogating the wetland classification rules. HBG does not justify ignoring the standard methodology. That methodology is carefully crafted to preserve sites where seasonal or permanent water quality enhancement is possible because of local site conditions.

In my professional opinion, the HBG delineation should be reexamined and the oxy-redox status of the soils should be assessed electronically, without using carcinogenic alpha-alpha' dipiradryl, to determine wetland status under wintertime saturated conditions where plant species indicate potential wetland status.

Sincerely,

Robert R. Curry

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## TERRACE POINT ACTION NETWORK

2395 Delaware Avenue, #21  
Santa Cruz, CA 95060

Tel: (831) 466-3332  
Fax: (831) 466-3332  
Email: rcurry@aasi.com

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November 19, 2005

**RECEIVED**

NOV 21 2005

California Coastal Commission  
Central Coast District Office  
725 Front Street  
Santa Cruz, CA 95060

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

*(This is a revision of previous comments dated October 5, 2005)*

Commissioners:

The Staff has worked very diligently in containing the University's appetite to develop every acre of Terrace Point. This is reflected in the many months of work staff effort and the staff modifications to the document submitted by the University.

We agree with the Staff changes to that document for the most part, but we respectfully request that you make the following changes to the staff recommendations:

### **1. Reduce Density and Mass**

The proposed development is too dense for the site. It allows for 417,000 Square feet of buildings and related structures, including 112 housing units and 10 overnight units, and up to roughly 150,000 square feet of outdoor research area—all packed into 35 acres.

### **2. Prohibit Housing on Terrace Point.**

The Staff has agreed with the University that housing is appropriate on site. We disagree. Terrace Point is the last coastal meadow in Santa Cruz, and its development should be reserved for coastal dependent uses. Allowing housing on this site is a mistake for several reasons:

- a. There is adjacent land to the east that would be suitable for housing. This would allow the entire site to be used for coastal-dependent uses. However, the University has never explored the option of obtaining this land for housing in a serious way.

- b. On-site housing will create more daily trips than housing off-site. Work/live housing is great in theory. But Terrace Point is a remote location. Consequently, there will be trips generated by partners of the on-site workers commuting to off-site jobs, trips for school, dry cleaning, shopping, meals, etc. it is not hard to see, and the University agrees, that this results in more than the 10 weekly trips for an off-site employee.
- c. As the research grows, the demand for research space will exceed the allotted land. The only options are to build higher buildings or build on the open space. Woods Hole has often been used as a



model for this campus, but the attached photograph shows that 4 and 5 story research buildings are built into the once sleepy fishing village because there was not enough land available.

### **3. Preserve Open Space in Perpetuity**

The University and Staff do not address future development. Eventually, the growth in demand for research buildings will eventually cause the University to ask for development in what is now claimed to be open space. So the first violation of this CLRDP will be a request to build research buildings in the open space. Only by preserving the open space in perpetuity can this be prevented. At a minimum, the open space should be placed in the UC Natural Reserve System.

### **4. Prohibit Construction on the Cafeteria and Auditorium Site**

The CLRDP Prototype Site Plan (Figure 7.2 shown as Figure 46 of 66 in Exhibit C) indicates that the 300-seat auditorium and cafeteria/food service building (euphemistically called "support facilities") are to be sited east of the current NOAA/NMFS building. All development should be prohibited from this area, especially these two buildings, since

- a. Building on those sites will prevent inter-wetland communication of wildlife.
- b. The auditorium and food service should be more centrally located for better circulation within the campus
- c. Prevailing winds create food odor and noise pollution to the residents in the neighborhood to the east.

#### **5. Prohibit Armoring of Cliff**

Implementation Measure 3.7.3 allows for shoreline armoring if existing structures are threatened. Shoreline armoring should not be allowed for any reason—the current structures were sited with the experts' predictions for erosion, so there should be no problem. Most importantly, the damaging impact of seawall armoring is too severe.

#### **6. Install Shaffer Road Railroad Crossing**

This item is not part of the CLRDP, but it should be a condition of certification.

Construction traffic and the ongoing traffic for the new campus will adversely impact the neighborhoods along and surrounding Delaware Avenue. A condition of certification should be the construction of a railroad crossing on Shaffer Road to create easy access to the site from State Route 1. Then the neighborhood impact will be minimal.

Sincerely,



Renwick E. Curry, PhD

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EPI-Center, 1013 Monterey Street, Suite 207 San Luis Obispo, CA 93401  
Phone: 805-781-9932 • Fax: 805-781-9384

From:  
OCT 13 2005  
Received at Commission Meeting

October 12, 2005

California Coastal Commission  
Meg Caldwell, Chair  
C/O Central Coast District Office  
725 Front Street, Suite 300  
Santa Cruz, CA 95060

Hand Delivered to Marriott San Diego Hotel and Marina

**Subject: UCSC Coastal Long Range Development Plan / Public Comment**

Chair Caldwell and Honorable Commissioners,

On Friday your Commission is scheduled to hear a request by the University of California, Santa Cruz, requesting certification of the proposed Coastal Long Range Development Plan. - Item 11a on the Agenda. I will be unable to attend the hearing, but I am writing in general support of Staff's excellent work modifying the CLRDP as originally proposed. However, I am requesting that you direct additional conditions of approval for this item to insure the adequate implementation of required mitigation measures.

The San Luis Obispo *Coastkeeper*<sup>®</sup>, a program of Environment in the Public Interest, is organized for the purpose of enforcing water quality, watershed and coastal planning regulations on the California Central Coast. As such, the SLO *Coastkeeper* and our supporters are concerned that adequate funding to insure protection of riparian, wetland, and other identified sensitive coastal habitat (ESHA) is not currently contained in the proposed CLRDP.

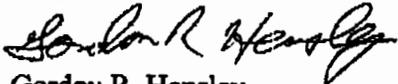


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Staff has proposed conditions, which include the implementation of BMPs to prevent degradation of sensitive resources. However, in the past, the University has failed to comply with mitigation requirements due to shortfalls in funding. Neither the CLRDP nor the DCP addresses how the University will ensure an adequate, secure funding source. SLO Coastkeeper is concerned that a potential lack of a dedicated revenue source to support the Drainage Concept Plan (DCP) will render the plan inconsistent with the Coastal Act (see appendix B of the proposed CLRDP).

The SLO *Coastkeeper* therefore urges your Honorable Commission to consider conditions requiring monthly post-construction BMPs stormwater and drainage monitoring reports to ensure early detection of any failure to protect water quality onsite as well as adjacent marine areas.

Respectfully submitted,



Gordon R. Hensley  
Executive Director/Coastkeeper



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**DEPARTMENT OF FISH AND GAME**

Office of Spill Prevention and Response  
Marine Wildlife Veterinary Care and Research Center  
1451 Shaffer Road  
Santa Cruz, CA 95060  
(831) 469-1744  
(831) 469-1723 fax



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JUN 07 2005

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

June 1, 2005

Dan Carl, Coastal Planner  
Coastal Commission, Central Coast Office  
725 Front St., Suite 300  
Santa Cruz, CA 95060

Dear Mr. Carl,

I am writing this letter to voice general support for the University of California, Santa Cruz's long range development plan (LRDP) for the Long Marine Lab Complex (formerly known as Terrace Point). I am the supervisor of the Marine Wildlife Veterinary Care and Research Center (MWVCRC) which is owned and operated by the California Department of Fish and Game (CDFG) located within the subject property. I believe U.C. Santa Cruz has shown great vision in inviting State and Federal entities with marine conservation and management mandates to co-locate with the university at this location. This use of coastal land is providing value added services to the people, marine ecosystems and wildlife resources of California, and will do so for years to come. The addition of facilities for USGS and the Monterey Bay Aquarium-Sea Otter Research Center will only increase the collaborations and accelerate the scientific progress. The Universities plans for providing additional support facilities, particularly some limited housing, should likewise be a very positive addition.

However, there is some room for improvement. Specifically, the road (variously known as Shaffer Rd. or McAllister Rd.) which now connects the end of Delaware Ave and the city of Santa Cruz to our facility, the NOAA-NMFS buildings and on down to the Center for Ocean Health, Long Marine Lab and the Seymore Marine Discovery Center needs to be realigned, improved and paved. For the following reasons I feel this should be strongly encouraged as a condition of granting the LRDP.

- 1) The existing road cuts off the natural flow of excess surface and ground water across the fields and is a barrier to plant succession and native revegetation. I believe the previous owners and the university have known this for some time.
- 2) The existing road is in poor repair and although continually patched, will never be very viable as it is poorly engineered, the road bed has been degraded in several areas and it's unsuited for the volume of traffic and weight of vehicles that use it. It also has significant drainage problems in several other areas along its length that result in standing water.

3) The current road alignment allows for a long essentially straight stretch from the north end of the property directly to Long Marine Lab. Users of the road commonly hit speeds of 25-30 mph as they pass the south end of the MWVCRC and 40-50 mph as they pass the old greenhouses and NOAA-NMFS. Most importantly this is a safety hazard, but also an esthetic problem, and until dealt with effectively will continue to be a detriment to all who work, recreate and live in the area.

4) People using Map Quest and other automated navigation (including deliver truck drivers) commonly get lost at the end of Shaffer Rd. (the spur off highway 101 that doesn't connect to Long Marine Lab) when trying to find any/all of the facilities in the Long Marine Lab complex. Confusion exists as to where Delaware Ave ends, Shaffer and/or McAllister Rds. begin and end.

5) In designing the MWVCRC in cooperation and consultation with UC Santa Cruz in 1994 and 95, this road realignment with a remnant spur road servicing the MWVCRC was envisioned and held out as a likelihood in the near future. As a consequence the MWVCRC was located as close as possible to the existing road to optimize use of the limited property available. As a result traffic is too close for optimal safety, dust and dirt clog air intakes and degrade equipment, and large trucks, busses and maintenance and construction equipment lumber by bound for the UCSC and NOAA buildings, double park when lost, and in general clog the traffic situation. It has been 10 years since the construction of the MWVCRC began and 8 years since it opened and road realignment has not taken place.

6) Although this realignment was held out as likely when NOAA-NMFS relocated to the Long Marine Lab complex in approximately 1999, it didn't happen. The subject was apparently not addressed when the Seymore Marine Discovery Center and the Center for Ocean Health were permitted and built in about 2000, all three of which greatly increased daily traffic. At those times road improvements were apparently not required by the Coastal Commission and not made by UC Santa Cruz. Now we are being told that this road realignment will occur if and/or when either the Monterey Bay Aquarium project or the USGS project are implemented. These could take many years and may never occur.

It would be beneficial for the Coastal Commission to strongly support realignment of Shaffer/McAllister Road at the earliest opportunity. If you have further question you may contact me at 831-469-1726 or at [djessup@ospr.dfg.ca.gov](mailto:djessup@ospr.dfg.ca.gov).

Sincerely,



David A. Jessup  
Senior Wildlife Veterinarian/Supervisor

**Exhibit C1: Correspondence received since staff report prepared 1/26/06.**



CLDC

**RECEIVED**

MAR 27 2006

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

David G. Eselius  
1312 Laurel Street  
Santa Cruz CA 95060

March 27, 2006

To: Arnold Schwarzenegger  
President of the UC Board of Regents  
Governor of California  
State Capitol, Sacramento, CA 95814

cc: Robert C. Dynes, UC President  
Chancellor Denice D. Denton, UCSC Chancellor  
UCSC 2005 LRDP, Comment, [lrdep-eit@ucsc.edu](mailto:lrdep-eit@ucsc.edu)  
Sam Farr, Member of Congress, 17<sup>th</sup> District California  
Joe Simitian, 11<sup>th</sup> Senate District  
John Laird, 27<sup>th</sup> Assembly District  
Sean Walsh, Director Office of Planning and Research (OPR)  
Mike Chrisman, California Secretary for Resources  
California Coastal Commission, Central Coast District  
Santa Cruz County Supervisors, members  
Cynthia Mathews, Santa Cruz City Mayor  
Santa Cruz *Sentinel*

Subject: UC Regents – Long-term Planning and Environmental Impact Report fiduciary obligations, Santa Cruz County

Dear: Arnold Schwarzenegger  
President of the UC Board of Regents

This letter is intended to highlight the need actions that must be taken in anticipation of University of California Santa Cruz's (UCSC) intended expansion and to call attention to certain aspects of University of California Board of Regents (UC Regents) operational management and management practices. UC Regents' management practices have resulted in "piecemealing" of California Environmental Quality Act (CEQA) legally required environmental filings, which has resulted in breaches of the public trust of UC. To prevent UC Regents from further piecemealing of county, state, and national resources, a proper CEQA planning sequence is identified.

UCSC plans to grow from 15,000 to 21,000 students and from 4,077 to 5,600 faculty and staff, over 15 years (2005-2020). The UC Regents understands its obligations are to expand the 2,000 +/- acre campus-construction-site, as necessary to support the projected UC's 2005-2020 enrolment numbers. This growth is occurring without a viable Long-Range Development Plan (LRDP) or an appropriate CEQA *Master Environmental Assessment, Master EIR, and Project EIRs*.

The proposed UC long-range CEQA planning sequence is identified within the *Guidelines for Implementation of the California Environmental Quality Act*. The California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) both protect against environmental piecemealing. Piecemealing is a process of chopping of a large project into many little ones---each little project with a potential impact on the environment---which cumulatively may have disastrous consequences.

Under state and federal laws the existing UCSC 2005-2020 LRDP and 2005-2020 EIR constitutes an improper piecemealing of the UCSC planning and projects. Since the 1980s, UCSC inadequately

represented campus and county resources within CEQA EIRs. I believe that these CEQA EIR omissions and ambiguities indicates a calculated piecemealing of UCSC campus growth. Lacking full and timely disclosures, UCSC has short changed the County of Santa Cruz. A recent Santa Cruz article has identified a portion of the piecemealing affect upon Santa Cruz County.

*But the addendum's limited scope and its ambiguity only left local officials and residents feeling as if their concerns went ignored.*

Attachment 1

Specific concerns regarding the accusation of UC Regents mismanagement through their inadequate exercising of public trust fiduciary requirements, of specific Santa Cruz County's environmental resources, will be provided by this author, upon request.

With the proper application of long-range CEQA planning sequence, by UCSC, the environmental conflicts within Santa Cruz County can be minimized. The CEQA planning sequence builds upon each previous planning sequence. The sequence helps to prevent inappropriate piecemeal degrading, of the county and campus environment and other resources.

Proper application CEQA procedures for UCSC long-term planning is comprised of developing the following:

- Master Environmental Assessment shall identify and organize UCSC and Santa Cruz County/cities regional environmental information. The Master Environmental Assessment will contain an inventory of the physical and biological characteristics of the area for which it is prepared and may contain such additional data and information as the public agency determines is useful or necessary to describe environmental characteristics of the area. The Assessment will include; identification of existing levels of quality and supply of air and water, capacities and levels of use of existing services and facilities, and generalized incremental effects of different categories of development projects by type, scale, and location.
- A new UCSC 2005-2020 LRDP, is to plan campus development and identify relevant environmental elements, contained within the Master Environmental Assessment.
- With the provided affected government agencies cooperation (county, cities, state parks, etc.) providing relevant data, the UCSC 2005-2020 Master EIR shall evaluate (to the greatest extent feasible) the cumulative impacts, growth inducing impacts, and irreversible significant effects on the environment of subsequent projects. The environmental impacts specifically include the affected areas of Santa Cruz County and cities concerning transportation, water, housing, local economy, high-order natural environment, and cultural resources.
- The Project EIR examines the environmental impacts of a specific development project, and all projects identified within the UCSC 2005-2020 Master EIR.

**UC Regents Management, Background** -- The UC Regents are best understood as a body of corporate elites, or managerial leaders, whose influence and power is put to use by shaping policy within the economic mill that is the University of California. The UC Regents are also the operational managers of the University of California.

Much of the important work of the UC Regents is carried out through the committee structure. The UC Regents manage the university by dividing work into many necessary committees, and then cross serve on these committees where they have certain expertise and experience. The UC Regents Board operates through seven standing committees: Audit, Educational Policy, Finance, Grounds and Buildings, Health Services, Investments, Oversight of Department of Energy Laboratories.

For the last 127-years, the State Legislature has provided scant oversight and limits to the operations of the UC Board of Regents. By a self-imposed extension of the 1879 Constitutional Article IX (Section 9) articles for a "public trust," the UC Board of Regents has assumed the position of a loosely defend principal of "sovereign immunity," and have manage the University of California "without restrictions." Thus, the

University of California Regents Monarchy has come in conflict with its constitutional fiduciary obligations.

Since the 1960s, burgeoning growth in its campuses and facilities has led to the UC Regents' responsibility of what amounts to a UC multibillion-dollar taxpayer funded business, with 150,000 employees and 200,000 students. The UC Regents Monarchy has not appropriately developed an independent administrative management structure that should support the Regents' operation of the multibillion-dollar business.

It must be understood, that by not having in place a properly empowered senior operations management team within the UC Presidents' Office, the UC Regents directs the operations the University of California by having campus staff directly report to the UC Regents (committees), for project funding approval. The UC Regents have obliged themselves to the day-to-day decisions, of the University of California operations.

**Santa Cruz County and UC Planning** – The UC Regents' Grounds and Buildings Committee is the approving facilities funding agent and therefore is the responsible authority for University of California's long-term facilities development.

Title 14, California Code of Regulations, within Chapter 3 of the *Guidelines for Implementation of the California Environmental Quality Act*, identifies various types of CEQA EIRs. The EIR document types are tailored to different situations and intended uses. These variations are not exclusive. Lead Agencies (such as the UC Regents) may use other variations consistent with the Guidelines to meet the needs of other circumstances. For a large significant development such as a UCSC 2005-2020 LRDP, the following CEQA documentation sequence applies.

**15169. Master Environmental Assessment** -- General. A public agency may prepare a Master Environmental Assessment, inventory, or database for all, or a portion of, the territory subject to its control in order to provide information, which may be used or referenced in EIRs or Negative Declarations. Neither the content, the format, nor the procedures to be used to develop a Master Environmental Assessment are prescribed by these Guidelines. The descriptions contained in this section are advisory. A Master Environmental Assessment is suggested solely as an approach to identify and organize environmental information for a region or area of the state.

(b) Contents. A Master Environmental Assessment may contain an inventory of the physical and biological characteristics of the area for which it is prepared and may contain such additional data and information as the public agency determines is useful or necessary to describe environmental characteristics of the area. It may include identification of existing levels of quality and supply of air and water, capacities and levels of use of existing services and facilities, and generalized incremental effects of different categories of development projects by type, scale, and location.

Discussion: The Master Environmental Assessment was developed as a way of providing a database for use with later EIRs. If an agency prepared a Master Environmental Assessment, the agency could reduce the amount of work necessary to prepare later EIRs. The environmental setting would have been fully analyzed, and the likely environmental effects in the area could be anticipated. Thus, the Master Environmental Assessment could help focus initial studies as well as EIRs.

**15175. Master EIR** -- The Master EIR procedure is an alternative to preparing a project EIR, staged EIR, or program EIR for certain projects which will form the basis for later decision-making. It is intended to streamline the later environmental review of projects or approval included within the project, plan or program analyzed in the Master EIR. A Master EIR shall, to the greatest extent feasible, evaluate the cumulative impacts, growth inducing impacts, and irreversible significant effects on the environment of subsequent projects.

15125. Environmental Setting

(c) Knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project. The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context.

(d) The EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans. Such regional plans include, but are not limited to, the applicable air quality attainment or maintenance plan or State Implementation Plan, area-wide waste treatment and water quality control plans, regional transportation plans, regional housing allocation plans, habitat conservation plans, natural community conservation plans and regional land use plans for the protection of the Coastal Zone, Lake Tahoe Basin, San Francisco Bay, and Santa Monica Mountains.

(e) Where a proposed project is compared with an adopted plan, the analysis shall examine the existing physical conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced as well as the potential future conditions discussed in the plan.

15161. Project EIR -- The most common type of EIR examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The project EIRs shall examine all phases of the project including planning, construction, and operation.

**UC Planning, Legal Analysis (planning and project piecemealing)** – The UC Regents' long-term planning and the current UCSC 2005-2020 LRDP and 2005-2020 EIR constitutes an improper "piecemealing" of the UCSC planning and projects under state and federal laws:

As a general rule, an environmental document such as an EIR must describe the entirety of a project, including reasonably foreseeable future actions that are part of the project (14 CCR & 15378 (a); *Laurel Heights Improvement Association v. Regents of U.C.* (1988) 47 Cal.3d 376, 395 ("Laurel Height I")). The California Environmental Quality Act and the National Environmental Policy Act ("CEQA/NEPA") both protect against environmental considerations by "...chopping a large project into many little ones----each with a ...potential impact on the environment---which cumulatively may have disastrous consequences" (i.e., piecemealing) (*City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1452).

**The Request** – To aid in the prevention of "piecemealing" of the UCSC projects, the court rulings of *Laurel Heights Improvement Association v. Regents of U.C.* (1988) and *City of Santee v. County of San Diego* (1989) are to be considered when developing the new UCSC *Master Environmental Assessment, 2005-2020 LRDP, 2005-2020 Master EIR, and Project EIRs.*

The 2005-2020 long-term planning environmental impact assessment general topics are to include at least the following UCSC relationships to Santa Cruz County and cities:

- Transportation
- Water
- Housing
- Economic
- High-order natural environment
- Cultural Resources (with specificity concerning the historical cultural resources of ca. 1791-1961 Cowell Home Ranch lime production and ranching)

UCSC 2005-2020 planning affects the University of California, City of Santa Cruz, the County of Santa Cruz, California State Parks, California Office of Historic Preservation, and the California Coastal Commission. These government agencies are to review and comment upon UCSC long-range planning CEQA EIR documentation.

It is evident that UC Regents operational management of the UCSC campus operations and growth does have a significant environmental impact within the State of California and the County of Santa Cruz. The cultural resources of Cowell Home Ranch's historic lime production facilities, within the possession of UCSC, have national significance.

Sincerely,



David G. Eselius

Attachment 1: *UCSC cool to community concerns*, Santa Cruz Sentinel, March 26, 2006

March 26, 2006

***UCSC cool to community concerns***

By JONDI GUMZ

Santa Cruz Sentinel staff writer

SANTA CRUZ — UC Santa Cruz, like all the UC campuses, is under pressure to serve more of California's top students and figure out a way to add the facilities to do so.

Demand is growing. More than 106,000 students applied last fall for one of the coveted UC spots, including 70,000 high school seniors, 8 percent more than the year before.

UC Santa Cruz, which has 15,000 students and 3,760 employees, has mapped out a long-range development plan — a controversial plan in some quarters — that by 2020 could nearly double construction on the 2,000-acre campus atop High Street, accommodating 21,000 students and 4,700 employees.

That plan is expected to put another 4,600 cars on the road, and that's one of the top concerns of people who live nearby.

After two years of meetings, nothing in the state-mandated environmental review — which presents ways to deal with issues like traffic — has appeased critics, whose numbers include city and county officials.

Last week, the campus issued an addendum to the three-volume environmental review — focusing on traffic.

But the addendum's limited scope and its ambiguity only left local officials and residents feeling as if their concerns went ignored.

The two sides appear so far apart on the issue of campus growth, they may end up in court. That is what happened last year when UC Berkeley declined to revise its expansion plans and mitigations to the satisfaction of city residents.

"It is clear that local community opposition will need to resort to legal action," predicted Hal Levin, an environmental consultant who lives north of the campus.

UCSC is not subject to city planning regulations since it is a state entity. Final approval is up to the UC Regents, and the timetable calls for approval this summer or, at the latest, fall.

**Addressing public comment**

The university's 45-page addendum deals solely with traffic.

Some of the traffic to the campus is expected to be diverted to the former Texas Instruments plant nearby on Delaware Avenue, where employment is expected to expand from 159 workers, the current number, to 760.

Campus architect Frank Zwart noted that the university's analysis has been expanded to cover stretches of Highway 1 from the "Fishhook" to State Park Drive in Aptos and Highway 17 to Granite Creek Road in

Scotts Valley, specifically because of public comments. The initial report, which ran to 900 pages, focused on traffic impacts only on campus and at city intersections.

In the new analysis, the consultants concluded the impact on Highway 17 would be negligible because it would add no more than 50 car trips, but that congestion would worsen during commute hours on Highway 1, where traffic is already at a crawl during the late afternoon.

The solution proposed by UCSC is to pursue the same two mitigations offered in the initial report on Highway 1. The first mitigation involves stepping up traffic-reducing strategies like vanpools, bike shuttles, and car-sharing. The second is to negotiate a payment for road improvements, although that is unlikely if the city of Marina loses a court case against CSU Monterey Bay on the issue of paying for off-campus road improvements.

In January, city officials called the mitigation measures vague. When the city's legal expert, Sacramento attorney James Moose, sent in his review, he called the document "so inadequate the city cannot yet formulate a fully formed position."

But from the campus' point of view, changes to the initial report is the second instance of slowing down the process in response to critics. The university's schedule called for the UC Regents to approve the long-range plan this summer, but that deadline is likely to be delayed for several months.

Last year, UCSC Chancellor Denice Denton agreed to extend the 60-day comment period — which was to end Dec. 19 — until Jan. 11. Both county Supervisor Mardi Wormhoudt and then-mayor Mike Rotkin had asked for additional time to respond to the hefty document.

### **Community concerns**

From the critics' point of view, the new revisions are inadequate.

They're merely a response to Caltrans' request to look at freeway interchanges and do not address any of the issues raised by the city, said Rotkin, who stepped down as mayor but remains on the City Council.

Wormhoudt was pleased to see more analysis of campus traffic impacts on Highway 1, but at the same time, she was disappointed.

"I saw a variety of comments that raised very significant points that needed to be addressed," she said, citing water usage and traffic generated by a proposed 4,000-seat event center.

She contends the campus must do more to mitigate the impacts of a growing enrollment on traffic, water, and the redwood-studded forest that makes the Santa Cruz location special. In her opinion, the environmental impact report doesn't comply with the state law mandating environmental review.

Levin, an environmental consultant who taught at UCSC 25 years ago, concurred.

He contended that "grievous errors and omissions in the basic data used" to prepare the report undermined the analysis.

This makes it difficult for people trying to protect the quality of life in Santa Cruz, he said. It's quite a change from the early 1980s, he added, when the UCSC campus could not meet its student population target of 7,500 and launched an ad campaign, "An Ideal Becoming Real."

Most students were busy with finals this week.

But Amelia Timbers, a student who has followed the development issue and took time to read the new report, noted the city's backlog of road maintenance is in the millions. She wishes the campus would

specify an amount of money for infrastructure improvements. She also wishes a solution could be reached without going to court.

"I have noticed that suing UCSC results in using up time and money that would otherwise be used to solve important issues," she said.

Contact Jondi Gumz at [jgumz@santacruzsentinel.com](mailto:jgumz@santacruzsentinel.com).

## If You Go

### How to comment on plan

Comments on the addendum to the environmental report must be submitted in writing. The deadline is

5 p.m. May 3. They can be mailed or hand-delivered to UCSC's Physical Planning office, Barn G, 1156 High St., Santa Cruz, CA 95064,

or e-mailed to [lrdp-eir@ucsc.edu](mailto:lrdp-eir@ucsc.edu).

The addendum is at the downtown branch of the Santa Cruz library and on campus at the McHenry and Science & Engineering libraries. A printout may be purchased from

Fed-Ex Kinko's on Laurel Street in downtown Santa Cruz or on campus at XpressIt!, next to the Bay Tree Bookstore. The document is also on the Web at [www.lrdp.ucsc.edu](http://www.lrdp.ucsc.edu).

### UCSC's traffic solutions

- Car-sharing, regular shuttle service to off-campus work sites on Delaware Avenue and Shaffer Road, and more commuter van pools and bike shuttles.
- Charge less for off-peak parking, shift meetings to off-campus locations, consider building student housing off campus along bus routes and propose park-and-ride lots for the Westside and Eastside.
- Negotiate payment toward improvements such as the three-year project to revamp lanes on Highway 1, as long as other developers pay their share. (This strategy has been challenged in court by the city of Marina.)

You can find this story online at:

<http://www.santacruzsentinel.com/archive/2006/March/26/local/stories/04local.htm>

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# TERRACE POINT ACTION NETWORK

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Sent to all  
Commissioners

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MAR 08 2006

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

February 27, 2006

Meg Caldwell, Chair  
California Coastal Commission  
Director, Environmental and Natural Resources Law & Policy Program  
Stanford Law School, 559 Nathan Abbott Way,  
Owen House Room 6,  
Stanford, CA 94305-8610

## SUMMARY

The TERRACE POINT ACTION NETWORK is a nonprofit association of Santa Cruz County residents who have worked since 1992 to persuade decision makers to recognize the unique value of the ocean-side parcel now proposed for the "UCSC Marine Science Campus" for priority coastal uses including open space, wetlands, wildlife habitat, agriculture, and limited coastal-dependent uses; and to preserve it for same.

We know the Coastal Commission supports our principles and we are writing to ask the Commissioners to request additional information and review by staff so that all information can be considered before making the critical and irreversible decision of approving the University's CLRDP. Therefore, we request that you direct the Coastal Commission staff

- To present all the arguments that might be made against housing at Terrace Point so that you can truly consider both sides of the issue.
- To present a comprehensive list of options for locking in the areas designated as open space as open space in perpetuity, including the pros and cons of each method.

## HOUSING ON TERRACE POINT SHOULD BE ELIMINATED

The Staff has agreed with the University that housing is appropriate on site. We **disagree**. Terrace Point is the last coastal meadow in Santa Cruz, and its development should be reserved for coastal dependent uses. Allowing housing on this site is a mistake for several reasons:

**Housing is not a priority use; it is not "coastal-dependent" or "coastal-related";** it can be provided without devoting this unique parcel to such inappropriate uses.

In enacting the Coastal Act, the Legislature declared that "the basic goals of the state for the coastal zone are defined in Pub. Resources Code, § 30001.5. One goal is

ASSURE PRIORITY FOR COASTAL-DEPENDENT AND COASTAL-RELATED DEVELOPMENT OVER OTHER DEVELOPMENT ON THE COAST

"COASTAL-DEPENDENT development or use" means any development or use which REQUIRES A SITE ON, OR ADJACENT TO, THE SEA to be able to function at all (Pub. Resources Code, § 30101.)

"COASTAL-RELATED development" means any use that is DEPENDENT on a coastal-dependent development or use (Pub. Resources Code, § 30101.3.)

Housing at Terrace Point cannot be called "coastal dependent" under any stretch of the definition. Housing is a NON-priority coastal use, particularly for ocean-front property. Housing at Terrace Point, anywhere on the ocean side of Highway One is plainly not "coastal RELATED" either as defined by the Coastal Commission in previous decisions. In a Coastal Commission publication "Seawater Desalination and the California Coastal Act" (2004) the Commission made it clear that even desalination plants are not coastal-DEPENDENT; and that to be coastal RELATED a development must DEPEND on the coastal-DEPENDENT uses.

This raises doubts of whether even a marine laboratory that uses seawater REQUIRES a site on or adjacent to the sea. Since there are no ocean-entry opportunities at Terrace Point the seawater, if needed, could be piped a distance for laboratory use. Moreover housing would not DEPEND on the marine laboratory for anything. The housing could be anywhere and does not NEED to be sited near any coastal DEPENDENT use. The University is confusing "coastal-CONVENIENT" with "coastal-RELATED". Given the disconnect between housing and the Terrace Point site, much more attention should be given to other options for providing housing.

**There is vacant land to the east that would be suitable for housing.** This would allow the entire site to be used for coastal-dependent uses. However, the University has never explored the option of obtaining this land for housing in a serious way. Two other housing options: (1) a shuttle from the main campus would allow housing there and reduce the need for solo vehicle trips; (2) UCSC renting a block within a large rental development which was recently built just north of Terrace Point near Highway One.

**On-site housing will create more daily trips than housing off-site.** Work/live housing is great in theory. But Terrace Point is a remote location. Consequently, there will be trips generated by partners of the on-site workers commuting to off-site jobs, trips for school, dry cleaning, shopping, meals, etc. It is not hard to see, and the University agrees, that this results in more than the 10 weekly trips for an off-site employee, which is the traffic level with no on-site housing.

**As the research grows, the demand for research space will exceed the allotted land.**

The only options are to build higher buildings or build on the open space. Woods Hole has often been used as a model for Terrace Point campus, but the attached photographs show that 4 and 5 story research buildings are built in the once-sleepy fishing village because there was not enough land available for research space. The same will happen at Terrace Point.



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*For these reasons we request that you direct the Coastal Commission staff to present all the arguments that might be made against housing at Terrace Point so the Commissioners can truly consider both sides of the issue.*

*What are the arguments AGAINST housing at Terrace Point being considered "coastal dependent" or "coastal related"?*

*What are the precedents that would support the view that housing at Terrace Point is not "coastal dependent" or "coastal related"?*

*What are the ALL the other options for housing staff or visiting faculty or researchers off site from the Marine Lab?*

*What is the full range of impacts on the Terrace Point site besides merely paving over open land that siting housing there might involve, including impacts on the space available for coastal-dependent development, wetlands, habitat, incidental take of red-legged frogs, predation from domestic animals, additional need for parking, growth inducement, and recreation opportunities?*

**THE AREAS DESIGNATED "OPEN SPACE" IN THE CLRDP SHOULD BE PRESERVED AS OPEN SPACE IN PERPETUITY**

The CLRDP shows areas designated as open space: but the University had steadfastly avoided making any commitment that the open space areas will not be developed sooner or later. If the University can leave all its options open to develop the entire site then none of the Coastal Act values will be served. It is critical that the open space outside the development zones be preserved in perpetuity. Open space provides places for habitat, recreation, coastal access, and scenic vistas: all high priority coastal uses. Staff should explore the most effective, permanent, and legally practical methods for preserving the open space.

*We request that you direct Coastal Commission staff to present a comprehensive list of options for locking in the areas designated as open space as open space in perpetuity, including the pros and cons of each method. These methods should include Conservation Easements; Transfer to the UC Land and Water Reserve; Fee title transfer to a third party environmental organization; CC&Rs; and other legal means.*

The University cannot complain that preserving the open space in this way would require it to incur expense for maintenance. The University has already indicated that these spaces will be "open"; and, as the fee owner, would have to provide funding for maintenance anyway. Transferring these funds to a third party "trustee" or "keeper" would cost no more and would provide a way to make sure that the University keeps its open space commitments indefinitely.

Sincerely



Renwick E. Curry, PhD

CL/Dan

March 2, 2006

California Coastal Commission  
Central Coast District  
725 Front St.  
Santa Cruz, CA 95060  
Attention: Dr. Charles Lester & Dan Carl

**RECEIVED**

MAR 06 2006

CALIFORNIA  
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Dear Dr. Lester and Mr. Carl:

I am submitting a brief letter to you to follow up on the issues raised at the February CCC meeting in Chula Vista concerning the proposed UCSC CLRDP at Terrace Point.

**General Comments:**

It seems inappropriate for UCSC to propose a development plan that is not consistent and integrated with the Santa Cruz City Local Coastal Plan. All of the UCSC property is within the City boundaries and utilizes City infrastructure and services including roads, police and fire. I realize you may have already considered this issue to some degree, but request that you give further consideration to incorporating the UCSC proposal into the existing LCP. If the University owned property that was outside of the City and that was clearly unconnected to any existing LCP, I could understand the logic of a separate plan. But that is not the case in this situation.

Before any development footprint is designed and approved, the wetlands areas on the site need independent peer review by recognized wetlands experts to insure that wetlands definitions are not radically changed from the standards previously recognized by the Commission and existing case law. Wetland indicator plants currently exist on a much larger area than what has been delineated as wetlands by University consultants.

There is a lack of specificity in the current proposal and insufficient scrutiny about what projects are truly coastal dependent. For example, UCSC owns a large parcel very close by to Terrace Point, formerly a Texas Instrument facility, which could be used for many of the purposes that are claimed to be coastal dependent. It would not even be difficult to pipe seawater, if desired, to this property or convert for housing, research, and office facilities. This would avoid substantial new development impacts to the Terrace Point site. Ironically and perhaps inappropriately in the context of the proposed coastal development, UCSC, as part of the main campus LRDP, is proposing to convert this property to non-coastal related uses in spite of its close proximity to Terrace Point.

**Specific Recommendations:**

1. CCC staff should consider integrating development plans at this site into the City of Santa Cruz LCP.

2. CCC staff should arrange peer review of the wetland delineation with Dr. Robert Leidy from the EPA as previously suggested. I spoke with Peter Douglas and John Dixon together after the hearing was over and they both seemed enthusiastic about contacting Dr. Leidy for this purpose. I subsequently spoke with Dr. Leidy he has said that he is available to consult with the CCC and the Army Corps.
3. Closer examination of which projects are truly coastal dependent including the proposed 120 housing units.
4. Any areas that are proposed as open space must be permanently protected.
5. Mitigation proposals must include definite implementation and funding commitments.

Thank you very much for your attention. I look forward to your response.

Sincerely,



Don Stevens  
320 Cave Gulch  
Santa Cruz, CA 95060  
831-425-4721  
stevens@nuclearwhales.com

*Rec'd too late to send  
to meeting.*

Dear Coastal Commissioners:

I respectfully request that you consider the following comments against the certification of the UCSC Development Plan for the Marine Science Campus.

The CLRDP proposes an excessive amount of development on the last remaining, open coastal plain in Santa Cruz. The intensity of development equals what was once proposed for this site by a commercial developer (Wells Fargo) and was rejected by the City, at the urging of voters, for being grossly excessive.

The campus proposal does not fit into the low density character of the surrounding area. About half of the proposed building footprint will be developed with buildings that are multi story and out of scale with the one story development to the east, (DeAnza neighborhood), and the farmland and parkland to the west.

Because of its scope, mass, and height, the proposed campus will not meet the visual protection goals of the Coastal Act which call for development to fit into the character of the surrounding areas. To meet these goals the proposed campus development should not exceed one story in height.

The campus plan allows massive development in a small area, and the little remaining open space is not protected from possible future development proposals by UCSC. The remaining open space should be protected in perpetuity.

Prime coastal sites should not be developed with uses that are not coastal dependent. Although the 120 units of housing are related to the functioning of the Marine Campus, they will contribute unnecessarily to the visual mass and the building density of the site. This housing could be located in proximity of the campus, but in a less visible and less impacted site. Similarly, some of the support facilities which are not directly necessary for research activities should be located in other property that UCSC already owns in proximity of the Terrace Point site. (The former Texas Instruments site.)

The CLRDP does not address the traffic impact of the campus development on the surrounding neighborhood. Traffic impacts will be severe and need to be mitigated.

Thank you for the opportunity to present these comments in opposition to excessive amount of development proposed by UCSC at Terrace Point.

Craig and Marie Hausmann  
564 Rodriguez st  
Santa Cruz, Ca 95062

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FEB 09 2006

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CENTRAL COAST AREA

Exhibit C1  
UCSC CLRDP  
Correspondence received since 1/26/06 staff report

**Huffman-Broadway Group, Inc.**

*Environmental Regulatory Consultants*  
828 Mission Avenue, San Rafael, California 94901 USA • (415) 925-2000 • Fax (415) 925-2006  
Sender's e-mail: thuffman@h-bgroup.com

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February 7, 2006

FEB 08 2006

Mr. Charles Lester  
Deputy Director  
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725 Front Street, Suite 300  
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CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

**Subject: Terrace Point Coastal LRDP-UCSC**

Dear Mr. Lester:

This letter responds to comments made in a letter forwarded to your office on November 23, 2005, from Robert R. Curry. Mr. Curry's letter raises several concerns regarding the wetland delineation prepared by the Huffman-Broadway Group (HBG). These issues are repeated for clarity below followed by our response. Attachment 1 provides literature citations for the publications cited in this letter.

**Comment by Robert Curry.** *"HBG rejects soil color (hue and chroma) as a criterion for hydric soil classification because they contend that the dark colors of some of the soils that my investigations found to be seasonally reducing in eH was a condition inherited from prior agricultural use of the site. The three-agency federal rules do allow the delineator to reject soil color as diagnostic tool where the naturally dark colors mask soil organic content. The most common site condition for dark soils that are not dark because of organic matter is that of soils high in dark volcanic glass. Other dark minerals can also mask organic accumulations in soil. But HBG believes these Terrace Point soils are dark because of accumulations of agricultural crop residues, presumably left from the 1960's when this site was a brussel-sprout field. I mapped these soils in the 1960's and dug many pits to verify that they were organic rich where seasonally ponded water drained slowly due to perched water tables.*

*It matters not at all what the source of the dark organic matter is, so long as it is reducing and so long as those reducing conditions are reflected in the seasonal vegetation. If the soils are reducing, have standing or shallow groundwater and some season, and if plants are growing at that season, then the three criteria are present for wetland classification. I believe that at least a major portion of the soil organic matter is inherited from long-standing seasonal wetland conditions prior to agricultural use. HBG believes it is agriculturally induced. But in either case, the soils meet the criterion for seasonally reducing".*

Mr. Charles Lester  
California Coastal Commission  
February 7, 2006  
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**HBG Response.** Mr. Curry has taken out of context a sentence in our January 2004 delineation report (HBG 2004), which states, "Soils on the property developed under crop cover or grasslands and consequently have organic-rich, dark brown surface layers with low chroma values, which inhibit the use of soil color as an indicator." Mr. Curry mistakenly assumed that the word "grasslands" in the above-quoted sentence of our report is associated with agricultural crops. In contrast we are referring to native grassland that once occupied the coastal landscape prior to agricultural crops being grown at Terrace Point. Soils found at the Terrace Point site exhibit a rich-dark organic horizon and are classified by soil scientists as Mollisols. Mollisols develop under grassland vegetation, and develop dark brown to black organic rich surface layers. Because this dark color obscures accurate observation of colors resulting from reduced conditions, the Terrace Point site was treated as a problem area with respect to determining wetland / hydric soil indicators. The Corps' 1987 *Wetlands Delineation Manual* (Corps 1987) does not require the use of soil color in satisfying the wetland soil criterion. To use soil color as an indicator of wetland soil at the site would yield a false positive result; both upland (well-drained) and hydric (ponded) soils found at the Terrace Point site exhibited dark soil colors in the upper 12 inches of the soil surface. Furthermore, the Corps' 1987 *Manual* (pg. 8) allows for flexibility in applying the methodology, as "site conditions may require modification of field procedures."

Although soil color can be a valid indicator of hydric soil conditions, it is not as reliable as other indicators and its reliability needs to be questioned based on site conditions (Corps 1987, footnote 1). HBG initially evaluated using soil color as a potential indicator of hydric soils, but determined that it would not be a reliable indicator given that the soils at the site are Mollisols. In addition, even if soil color were used, it would only provide an indication of what has happened as a result of historical soil formation processes and would not represent current conditions. For these reasons, the wetland delineation at Terrace Point did not rely on the occurrence of a dark soil color, but considered other factors that influence the distribution of wetlands, with emphasis during the study being placed on evaluation of soil moisture and drainage conditions during the rainy season.

Mr. Curry's statement regarding "soil color (hue and chroma) as a criterion for hydric soil classification" is incorrect; soil color is not used by the Corps 1987 *Manual* as a criterion for hydric soil classification, but an indicator, and as such is either used, or, as in the above problem situation, not used. Furthermore, the hydric soils criteria developed by the National Hydric Soils Committee (NTCHS), which the Corps 1987 methodology follows, do not rely on soil color as a criterion for determining the presence of hydric soils. The NTCHS, a working group organized by the USDA Natural Resources Conservation Service, has developed criteria in identifying and mapping hydric soils throughout the United States. These criteria for determining the presence of hydric soils in the field are accepted by most state and federal agencies, include the following:

- (1) All Histosols, except Folists; or

- (2) Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Aquisalids, Pachic subgroups, or Cumulic subgroups that are:
  - (a) Somewhat poorly drained with a water table equal to 0.0 foot from the surface during the growing season; or
  - (b) Poorly drained or very poorly drained and have either:
    - (i) water table equal to 0.0 foot during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches, or for other soils;
    - (ii) water table at less than or equal to 0.5 foot from the surface during the growing season if permeability is equal to or greater than 6.0 inches/hour in all layers within 20 inches; or
    - (iii) water table at less than or equal to 1.0 foot from the surface during the growing season if permeability is less than 6.0 inches/hour in any layer within 20 inches; or
- (3) Soils that are frequently ponded for long duration (7 to 30 days) or very long duration (30+ days) during the growing season; or
- (4) Soils that are frequently flooded for long duration (7 to 30 days) or very long duration (30+ days) during the growing season.

**Comment by Robert Curry.** *“Further confounding the HBG delineation of statutory wetlands at Terrace Point is their contention that some of the sites that had surface saturation or shallow saturation during winter months, and would otherwise be classed as meeting the wetland hydrology criterion, were simply perched water tables or sites of very slow infiltration capacity where water accumulated near the surface but not at depth. In fact, that is exactly correct and is, indeed, a valid criterion for wetland hydrology. The Terrace Point soils are derived from deposits on a marine terrace cut by waves on the Santa Cruz Mudstone. That shallow underlying bedrock deposit is virtually impermeable to seasonal precipitation. The overlying beach deposits are thus subject to seasonal standing water that slowly moves seaward along the 0.5-degree gradient on the wave-cut bedrock surface and that saturates much of the terrace deposit and leads to rapid weathering of the beach sands to form clay minerals that plug and restrict water movement. This is what creates local perched water tables or zones of slow downward percolation. That is precisely the condition that is considered wetland hydrology.*

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*The local wetlands are not isolated as defined under the SWANCC decision<sup>1</sup> because the waters are interconnecting and flow to the sea during large storm events in wet years. Further the California Coastal Act rules protect isolated wetlands in the Coastal Zone”.*

**HBG Response.** The shallow bedrock that Mr. Curry refers to occurs farther down the soil profile, at depths greater than 12 inches from the soil surface except for wetland “W5”. Mr. Curry mistakenly implies that the presence of any soil saturation within the soil column satisfies the Corps 1987 *Manual* and the associated hydric soils definition and criteria developed by the National Hydric Soils Committee. The determination of the presence or absence of hydric soil conditions and wetland hydrology was based on observed soil moisture conditions following Corps 1987 *Manual* guidelines. The *Manual* indicates that the majority of the root zone (usually within 12 inches of the surface) of the prevalent species be saturated for the wetland indicator of soil saturation to be present. Soils found to contain saturated layers during the rainy season rarely were saturated throughout the majority of the root zone, which would be >6 inches within the upper 12 inches of the soil surface. Typically only 2 to 4 inches of the upper 12 inches of the soil profile were found to be saturated. If groundwater were driving soil moisture levels on Terrace Point, one would expect continuous saturation through the soil column or a “moist to wet to saturated” gradient from the top to the bottom of the soil column. On the basis of the occurrence of moist and wet soils *below* saturated soil layers, soil moisture levels on Terrace Point are believed to be driven by downward and lateral movement of water through the soil column, rather than by rising groundwater. Forces acting on the soil moisture in the root zone – including transpiration, evaporation, and drainage – maintain the majority of the soils in an unsaturated condition. Because of this condition, the majority of soils at Terrace Point do not exhibit either hydric soil or wetland hydrology conditions.

Mr. Curry refers to the SWANCC Supreme Court decision and the fact that the Terrace Point site drains to the sea. It is unclear what this statement has to do with the Coastal Act jurisdiction, except to say that with the exception of wetland “W7”, all wetlands on the Terrace Point during extreme stormwater events have surface flow that drains to the Pacific Ocean through manmade drainages.

**Comment by Robert Curry.** *“Finally, Huffman proposes that some of the plants that exist in wetland pockets and areas on the Terrace Point site are not all wetland indicators because, although so classified, they also exist in uplands or are not indicators in this particular site.*

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<sup>1</sup> Based on the Supreme Court ruling in *Solid Waste Agency for Northern Cook County v. U. S. Army Corps of Engineers* (SWANCC) concerning the Clean Water Act jurisdiction over isolated waters (January 9, 2001), nonnavigable, isolated, intrastate waters based solely on the use of such waters by migratory birds are no longer defined as waters of the United States. Jurisdiction of non-navigable, isolated, intrastate waters may be possible if their use, degradation, or destruction could affect other waters of the United States, or interstate or foreign commerce.

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*HBG can, under the three-element rules currently in force, dismiss one or more criteria for special reasons. Indeed, plants can be false indicators. The plants that are wetland indicators on the 1<sup>st</sup> (lowest) marine terrace throughout coastal Monterey Bay and San Mateo County are widespread and tolerant of many conditions. But the bottom line question that the Coastal Commission must ask is "Do the conditions at Terrace Point reflect seasonal reducing conditions that improve or maintain water quality?" With high organic matter in soils and seasonally reduced infiltration of ample rainfall, are the wetland-indicator native plants found at Terrace Point indicators of wetland conditions?*

*HBG proposes special conditions for Terrace Point. The site was once agricultural fields. The soils are high in clay content. The clay content varies laterally, possibly due to past land uses. Saturated or near saturated soil conditions within the rooting zone vary from site to site and year to year. Some of the indicator species found on site clearly grow in non-saturated sites. The dark surface soils may reflect past conditions. The growing season is 365 days long so the coincidence of the three criteria may not reflect conditions throughout the year. But none of these are valid excuses for abrogating the wetland classification rules. HBG does not justify ignoring the standard methodology. That methodology is carefully crafted to preserve sites where seasonal or permanent water quality enhancement is possible because of local site conditions".*

**HBG Response.** The approach taken by HBG followed the methodology in the Corps' 1987 *Manual* (Corps 1987) and subsequent guidance documents. HBG did not dismiss any criteria or parameter. Certain soil indicators (soil color and presence/absence of redoximorphic features) were not relied on due to problem dark soil conditions that interfered with meaningful interpretation and were replaced with more definitive ones, as is allowed for by the Corps' 1987 *Manual* (pg 8). Furthermore, for comprehensive determinations, the Corps' 1987 *Manual* allows for the alteration of the sample design and/or data collection procedures (pg. 61). In addition, HBG coordinated with California Coastal Commission staff and representatives of the Terrace Point Action Network (TPAN) during the course of the investigation. The coordination was for the purpose of reviewing of methodology and for making adjustments to the delineation approach given that the site has problem soil and vegetation conditions that are not readily interpretable without the collection of quantitative data (e.g., soil moisture).

**Comment by Robert Curry.** *"In my professional opinion, the HBG delineation should be reexamined and the oxy-redox status of the soils should be assessed electronically, without using carcinogenic alpha-alpha' dipiradryl, to determine wetland status under wintertime saturated conditions where plant species indicate potential wetland status."*

**HBG Response.** The redox probe and the  $\alpha, \alpha'$  dipyridyl method suggested by Mr. Curry have significant problems that may affect the readings (Tiner 1999). The former measures redox potential with platinum probes inserted into the soil, while the latter is a colorimetric test using a

Mr. Charles Lester  
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chemical applied to a selected soil sample to detect ferrous iron (indicative of soil anaerobic conditions). The technique proposed by Mr. Curry is prone to particular problems. The probe only measures the immediate point the probe comes into contact with in the soil and soils such as those found Terrace Point, which exhibit spatial variability in terms of texture, level of compaction, presence of animal burrows, and macropores filled with water, can significantly affect readings depending on where the probe is placed. The  $\alpha, \alpha'$  dipyridyl method is prone to false positives based on a number of problems associated with soil chemistry, timing of observation, photochemical reaction, and reactions with soil that has been in contact with metal (e.g., steel shovel, auger, metal probe or knife). On the basis of these documented problems with the two approaches mentioned by Mr. Curry, HBG believes that either approach will yield inconclusive results at the Terrace Point site.

In contrast, the method HBG used to measure soil moisture in the field during the rainy season was based on direct field observation of the soil at each sample site on an inch by inch basis within 12 inches of the soil surface with observations made using qualitative soil moisture descriptors (moist, wet, very wet and saturated) and with these descriptive soil moisture classifications quantified following the quantitative water content analysis procedures described by Hillel (1982) and Klute (1986). HBG therefore believes that the method used produced conclusive results.

Sincerely,



Terry Huffman, PhD  
Wetlands Regulatory Scientist

cc: Mr. Dan Carl  
Dr. John Dixon

Attachment 1. Literature Cited

## ATTACHMENT 1. LITERATURE CITED

Hillel, D. 1982. *Introduction to Soil Physics*. Academic Press, Inc. San Diego, CA, pp. 57-60

Huffman-Broadway Group, Inc. (HBG). 2004. *Investigation of the Presence and Geographic Extent of Wetlands on the Terrace Point and Younger Lagoon Reserve, University of California, Santa Cruz*. January.

Klute, A. 1986. *Methods of Soil Analysis, Part I-Physical and Mineralogical Methods*. Soil Science Society of America, Inc.

Tiner, Ralph W. 1999. *Wetland Indicators: A Guide to Wetlands Identification, Delineation, Classification and Mapping*. Lewis Publishers.

U.S. Army Corps of Engineers (Corps). 1987. *Corps of Engineers Wetlands Delineation Manual*. Wetlands Research Program Technical Report Y-87-1. U.S. Army Corps of Engineers, Waterways Experiment Station, Environmental Laboratory. Vicksburg, MS.

# RECEIVED

FEB 07 2006

F5a  
F5b

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

shirley Murphy  
opposed

Dear Commissioners:

I still do not understand why subjects that affect Santa Cruz cannot be held here in Santa Cruz so that more people can attend.

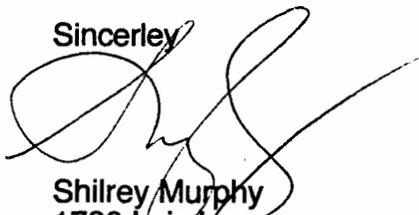
As stated in my first letter; no one else was allowed to build on this property, and this last letter does not indicate housing, however we know that in the plan housing is included.

If only research facilities are built, even though they seem rather large I cannot oppose them; however if as I suspect, housing is included I am opposed to the construction of homes for staff. UCSC, has in the past, indicated it would build homes and if staff did not buy them they would sell to the general public. There are many areas on the UCSC campus where "pods" of homes could be built, keeping everyone on campus and allowing staff to travel to work via the campus bus system; thereby eliminating more traffic problems.

I would love to see more public access trails as this is a great area for birders. The area could use some habitat restoration also.

Again, I am opposed to housing and even though the buildings seem a little large to me, if it is for research I cannot be opposed.

Sincerley



Shirley Murphy  
1780 Lois Lane  
Santa Cruz Ca 95062

FS6

February 6, 2006

Chairwoman Meg Caldwell and Commissioners  
c/o Central Coast District

Re: UC Santa Cruz CLRDP

Dear Chairwoman Caldwell and Commissioners:

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FEB 07 2006

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

I want to bring a controversial matter directly to your attention concerning the adequacy of the wetlands delineation that was used for the UCSC CLRDP.

Dr. Robert Curry, a recognized hydrology and wetlands expert, recently submitted a letter to your staff challenging the delineation. To summarize, he contends that the public and the Coastal Commission are being asked to accept a completely non-standard definition of wetlands for this project and that wetlands are likely more prevalent than what UCSC has delineated.

I sent a copy of Dr. Curry's letter to Dr. Robert Leidy who is with the Environmental Protection Agency. Dr. Leidy is an ecologist with EPA and is a national expert in wetland delineation. He said that since this controversy exists, it might make sense to have the delineation verified by the Army Corps of Engineers and/or the EPA first, before the Coastal Commission approves the project, since this will have to be done in any event to ensure compliance with Section 404 of the CWA. He also said that the EPA does have staff available to jointly come out with the Army Corps to verify any wetlands delineation.

Given the uncertainty in the environmental community about the delineation and the lack of a wetlands support study, I hope that the Commission will exercise caution and allow time to at least obtain a peer review of the delineation before making a decision on the project application. My understanding is that a peer review could be accomplished in approximately 4-6 weeks.

The accuracy of the delineation is crucial and directly related to ESHA issues, storm water management strategy, design and adequate functioning of detentions ponds, and viability of a successful Reserve Management Plan including the following:

1. UCSC has not conducted a hydrologic sufficiency of wetlands support study. Even if the delineation was accepted as being accurate, no thorough analysis has been done on what will happen to any remaining wetlands and Younger Lagoon if this project is built.
2. UCSC did not develop a complete hydrologic model that incorporates and integrates both surface and subsurface flow and how it relates to storm water management plans.

3. Storm water detention ponds may become wetlands and habitat for the California Red-legged frog over time. UCSC states in Implementation Measure 7.2.2 "natural drainage features to be created per the Drainage Concept Plan may exhibit wetland and/or habitat characteristics over time, but their primary function is for water filtration and treatment, flow control, and infiltration. As such, maintenance within them on a regular basis is expected and necessary in this respect, and is allowed per this CLRDP."

This statement is misleading. Simply asserting that the CLRDP will allow regular maintenance of ponds ignores that USFWS has already stated to the Commission that a red-legged frog take permit and Habitat Conservation Plan will likely be required for these ponds. A key campus study by outside consultants, the 2004 UCSC Stormwater & Drainage Master Plan by Kennedy-Jenks, stated: "In 1988 the University attempted to detain flows from College 8 and Family Student Housing by constructing a detention basin. Shortly after construction, the detention basin filled with sediment and became habitat for the California re-legged frog. The presence of a special-status species such as the California red-legged frog expands the effort and time required to obtain permits to clean out the basin. Therefore, the basin has not been routinely cleared of sediment and debris and, as a result, the basin no longer functions to detain flows."

4. UCSC does not make definite commitments for storm water mitigations so we do not really know what environmental impacts will occur (even if adequate hydrologic analysis had been completed). UCSC uses terms such as "to the degree feasible", "to the maximum extent practicable", and "with the exception that". This is inconsistent with what the Central Coast Regional Water Quality Control Board will require. For example, the water board sent comments on the main campus 2005 LRDP EIR which are attached to this letter including:

"Water Board staff is concerned with UCSC's history of failure to comply with mitigation requirements due to "lack of funding." UCSC's 2004 Mitigation Monitoring Program Report repeatedly states that mitigation measures were not implemented due to "lack of funding" and "budget constraints." Such terms are unacceptable. Water Board staff would like to reiterate that **mitigation funding is not to be budget dependent.**"

UCSC has a long history of ignoring environmental degradation caused by inadequate storm water management. This history dates back at least to 1988 when the Long Range Development Plan (LRDP) was adopted, in which storm water and erosion problems were identified and mitigations proposed. However, most of these promised mitigations were never implemented. As a result, the situation has been allowed to deteriorate and is now at a critical state. As a result, the situation on the main has been allowed to deteriorate and is now at a critical state. The Kennedy-Jenks study concluded in the executive summary:

"The UCSC campus is currently at a turning point. Accelerated drainage and erosion problems need to be addressed now to ensure continued protection of the campus' natural landscape. . . **The ecological integrity of campus watersheds will be irrevocably altered if such rates continue.**"

In summary, the CLRDP before you is flawed in many respects. I respectfully request that the Coastal Commission should require peer review of the wetlands delineation, a hydrologic sufficiency of wetlands support study, an updated storm water management plan that is consistent with other agency policies and requirements, definite commitments on what storm water mitigations will be implemented, and binding commitments on mitigation funding.

Thank you very much for your kind attention.

Sincerely,

A handwritten signature in cursive script that reads "Don Stevens". The signature is written in black ink and is positioned above the typed name and address.

Don Stevens  
320 Cave Gulch  
Santa Cruz, CA 95060  
Tel: 831-425-4721

FS6

February 6, 2006

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California Coastal Commission  
Central Coast District Office  
725 Front Street  
Santa Cruz, CA 95060

FEB 07 2006

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

Re: Coastal Long Range Development Plan (CLRDP) for  
UCSC Marine Science Campus at Terrace Point, Santa Cruz

Dear Coastal Commissioners:

I respectfully request that you consider the following comments **against the certification** of the UCSC Development Plan for the Marine Science Campus.

The CLRDP proposes an excessive amount of development on the last remaining open coastal plain in Santa Cruz. The intensity of development equals what was once proposed for this site by a commercial developer (Wells Fargo) and was rejected by the City, at the urging of voters, for being grossly excessive.

The campus proposal does not fit into the low density character of the surrounding area. About half of the proposed building footprint will be developed with buildings that are multi story and out of scale with the one story development to the east (DeAnza neighborhood), and the farmland and parkland to the west.

Because of its scope, mass, and height, the proposed campus will not meet the visual protection goals of the Coastal Act which call for development to fit into the character of the surrounding areas. To meet these goals, it would seem any further development there should be avoided and this rare open space preserved in perpetuity, and in the very least any proposed campus development should significantly minimized, and should not exceed one story in height.

The campus plan allows massive development in a small area, and the little remaining open space is not protected from possible future development proposals by UCSC. Absent all current open space being protected, at the very least, the remaining open space should be protected in perpetuity.

Prime coastal sites should not be developed with uses that are not coastal dependent. Although the 120 units of housing may be related to the functioning of the Marine Campus, they will contribute unnecessarily to the visual mass and the building density of the site. This housing could be located in proximity of the campus, but in a less visible and less impacted site. Similarly, some of the support facilities which are not directly necessary for research activities should be located in other property that UCSC already owns in proximity of the Terrace Point site. (The former Texas Instruments site.)

The CLRDP does not address the traffic impact of the campus development on the surrounding neighborhoods. Traffic impacts will be severe and need to be mitigated.

Thank you for the opportunity to present these comments in opposition to excessive amount of development proposed by UCSC at Terrace Point.

Sincerely,  
Anita Webb  
170 W. Cliff #12  
Santa Cruz, CA

F5b

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FEB 06 2006

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

H. Reed Searle  
114 Swift Street  
Santa Cruz, CA 95060  
Phone and Fax 831-425-8721  
5 February 2006

California Coastal Commission  
Central Coast District Office  
725 Front Street  
Santa Cruz, CA 95060

Re: Coastal Long Range Development Plan (CLRDP) for  
UCSC Marine Science Campus at Terrace Point, Santa Cruz  
Meeting date: Feb 10, Item 5B

Comment requesting mitigation of traffic impact

Dear Coastal Commissioners:

I write with reference to the impact of automobile traffic which undoubtedly will be generated by the Terrace Point project. A substantial part of this traffic will use West Cliff Drive and adjacent streets unless appropriate traffic calming measures are installed. The CLRDP does not address this issue.

The proposed development includes quadrupling the existing buildings and adding 112 housing units plus 10 "overnight units". No traffic studies are part of the CLRDP, but it is obvious that substantial traffic will be generated by the project. Adverse impacts will be greatly increased by proposed UCSC expansion, 2300 Delaware and other changes to the Westside industrial areas.. We have seen increasing commuter use of West Cliff in recent years and this trend will certainly continue unless appropriate traffic calming measures are installed.

It would be much better if this traffic were diverted north on Shafer Road to Highway 1, but this option is unavailable, at least at present. That being the case, all traffic will use Delaware St, and much of that traffic will spill over onto Swanton, Swift, Fair, Almar in order to access West Cliff Drive.

West Cliff is a recreational route. Its major value, the one to be protected, is its use for recreational and not for commuter purposes. It contains a section of the Monterey Bay Sanctuary Trail, the Pacific Bicycle Trail and is a major recreational bicycle/pedestrian route benefitting a

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steadily increasing number of local residents and tourists. It provides a cliff top walkway connecting two major State Parks and access to major surfing and sunbathing areas and beaches.

West Cliff Drive probably attracts as many people for recreational purposes as does Wilder Ranch, Moore Creek or Natural Bridges. It is both appropriate and necessary that West Cliff be protected from commuter automobile traffic.

Coastal Act section 30253(5) requires that "New development shall...protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses." Section 30240(b) requires that "Development in areas adjacent to...recreational areas shall be...designed to prevent impacts which would significantly degrade those areas...."

Appropriate traffic calming measures at the intersections of Delaware with the named streets, probably neighborhood entry points, could help. These streets and West Cliff substantially could be protected by chokers, chicanes, possibly speed humps, road closures, additional stop signs, and other measures which would reduce effective speed to 20 M.P.H.. This would materially reduce noise and numbers of automobiles, improve safety, and encourage recreational use.

I request that the Coastal Commission consider imposing the design and installation of measures, approved by the City of Santa Cruz, as an appropriate mitigation measure attendant upon approval of the project. "Fair Share" may be applicable, but most of the reasonably anticipated traffic will be generated by UCSC facilities; consequently UCSC should, in the first instance at least, bear the entire responsibility.

Sincerely,



H Reed Searle

FSb



**SIERRA CLUB**  
FOUNDED 1892

Santa Cruz County Group of the Ventana Chapter  
P.O. Box 604, Santa Cruz, California 95061 phone: (831) 426-4453  
FAX (831) 426-5323 web: www.ventana.org e-mail: scscrg@cruzio.com

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February 3, 2006

FEB 06 2006

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA

California Coastal Commission  
Central Coast District Office  
725 Front Street  
Santa Cruz, CA 95060

Re: UCSC Marine Science Campus at Terrace Point, Santa Cruz  
Coastal Long Range Development Plan (CLRDP)

Dear Coastal Commissioners:

Please consider the following comments **against the certification** of this Coastal Plan. Although there are many issues that we would like to comment upon, we limit ourselves to the most significant ones.

In general, the amount of development proposed by the CLRDP is of the same magnitude as was previously proposed by Wells Fargo, the commercial developer that sold the land to UCSC when its proposal was rejected by the City because it was grossly out of character with the surroundings. While we understand that the Commission can authorize coastal dependent projects in coastal areas, the public expects a greater degree of moderation and sensitivity than can be expected from a commercial developer. The magnitude of the proposed development is insensitive to the character of the site, of its surroundings, and of its surrounding neighbors. We urge the Commission to vote against a project of such large scope and scale on such an environmentally sensitive site.

More specifically, we want to draw your attention to these major items in the proposal.

**Land Use.**

1. The CLRDP contends that the proposed 120-unit housing development proposed for this site is a "coastal related development" because the staff and visitors who will be using the site need to be housed in proximity of the research facilities.

Coastal Act Section 30255 provides that: *"When appropriate, coastal-related development should be accommodated within reasonable proximity to the coastal-dependent uses they support."*

It is quite a stretch to contend that "reasonable proximity" means that the housing has to be adjacent to the research/teaching facilities. The campus site is environmentally fragile; it

has multiple ESHAs, wetlands, and important viewsheds which must be protected, first and foremost. Housing to serve the campus can be located on nearby sites and still be in "reasonable proximity" without burdening the campus site itself. The point of departure in this evaluation should be that the campus should contain only the minimum indispensable amount of development that is truly coastal dependent. Housing does not fit this standard.

Eliminating the housing units will reduce the excessive scale and scope of development that has been proposed for this site. Also, it will avoid distorting the plain meaning of the Coastal Act words: "reasonable proximity." Under no circumstance can "reasonable proximity" be interpreted to mean adjacency, especially when there are alternative sites for the housing in nearby, proximate locations.

### **Public Viewshed.**

The magnitude of the proposed development is excessive. It will have an enormous impact on the scenic character of this major coastal site which is highly visible from several, nearby, prominent viewing points, including Natural Bridges Park overlook, Wilder Ranch Park, all of the uphill area of the Westside of Santa Cruz, as well as from the Ocean. The proposed development will transform the site into an industrial/office park which will dominate and overwhelm its surroundings.

The few tall buildings (36-40 feet high) that are presently on the site already stand out as sore thumbs. The CLRDP proposes five sites on the campus where buildings 30 feet high, plus roof-top mechanical space, will be sited. (Fig. 5.4)

CLRDP Exhibit E, p. 137, Fig. 5.4, Development Subareas, shows that the total Allowed Footprint of all buildings on campus will be 346,388 sq.ft.. Contemplated buildings in Subareas No. 1, 3, 4, 5, and 11 are designated to reach 30 feet or more in height. The Allowed Footprint of these buildings, cumulatively, will be 170,360 sq.ft., or 49% of the total building footprint. In short, about half of the building area on campus will house tall structures. Their cumulative impact will be overwhelming, transforming the last coastal meadow in Santa Cruz into something that, from a visual standpoint, will resemble a large mall of box stores.

The proposed development does not meet the clear requirements of Coastal Act Section 30251 which states, in part:

*"Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, . . ."*

Because of its scope, mass, and height, the proposed campus will not achieve any of the visual protection goals of the Coastal Act. To fit into the character of the surrounding areas, any further campus development must be kept at one story in height.

The contention that a low density, low height development would impact UCSC's ability to develop a major marine research campus is like the lament of every commercial developer who is prevented from cramming an excessive amount of floor area on any given site. In fact, UCSC is acting like a commercial developer in this case, allocating or selling parts of the campus to other organizations who build their own buildings. There is no compelling public need for this to happen, as there is no compelling need for such a large marine campus here, when there are several other, major marine institutions further south, along the coast.

UCSC owns other large facilities in reasonable proximity of the Terrace Point site, including a large facility on Delaware Avenue formerly owned by Texas Instruments. This facility is within walking distance of Terrace Point. There are other available sites in the immediate vicinity of Terrace Point which would also allow for expansion of the Marine Campus activities without impacting the coastal plain.

### **Wetlands.**

The record before you includes a significant challenge to the definition of wetlands used by UCSC's consultants and the Commission's staff. The challenge is in a letter by Robert Curry, Ph.D., an eminent, local hydrologist and geologist. Many of our own Sierra Club members who have visited, used and observed the Terrace Point site over time attest to the fact that the wetlands on the site are far more extensive than claimed in the UCSC report.

As pointed out by Commission members in the past, the Coastal Act definition of wetlands is different from the definition used by other entities. Coastal Act Section 30121 defines a wetland as follows:

*"Wetland means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, or fens."* (emphasis added).

The Commission's Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone, Chapter 1, Sec. IV, states that:

*"In the coastal zone, the CCC, with assistance from the DFG, is responsible for determining the presence and size of wetlands subject to regulation under the Coastal Act. . . . the DFG wetland definition and classification system (described in chapter three) is the delineation methodology generally followed by the CCC."*

Chapter 3 of the Guide, cited in the paragraph above, reads as follows:

*". . . the DFG only requires the presence of **one** attribute (e.g., hydrology, hydric soils, or hydrophytic vegetation) for an area to qualify as a wetland (Environmental Services Division, 1987)."*

Neither the staff report nor the CLRDP seem to contain any reference to the use of the DFG wetland definition system called for in the Procedural Guide noted above. It would appear that CLRDP consultants and the Commission staff have conducted an analysis based on standards for defining wetlands which do not comply with the "only one attribute" requirement of the DFG.

The empirical evidence coming from members of the public who have observed the site over long periods, as well as the experts' comments in the record, lead to the conclusion that, based on the presence of any one of the 3 attributes quoted above, there is an extensive system of interacting wetlands, much larger than that identified in the CLRDP, which will be substantially fragmented and impaired by the massive scope of development proposed for the site.

The proposed mitigation measures/best management practices have no credibility given the persistent failure of UCSC to implement mitigation measures called for in the 1988 LRDP for the main campus. A more meaningful mitigation would be the substantial reduction of the development activity on this site to provide a far larger amount of open space for wetlands and the species that rely on them for survival.

The CCC Procedural Guide, Chapter 1, Sec. III, states in part that:

*"Wetlands must be viewed as a complete ecosystem that require a full complement of critical components in order to function. Some of these components are proper soil and hydrology, an unpolluted water source, and adequate buffer areas. Additionally, the wetland may contain one or more habitat types (e.g., upland, vegetated marsh, mudflat, and open water) within its boundaries. These components and habitats interact to form a complex ecosystem that supports a diverse and abundant assemblage of plants and animals, and performs numerous beneficial functions."*

The CLRDP splits up the site into distinct pieces that seem to conflict with the ecosystem interactions called for in the Procedural Guide.

The same CCC Procedural Guide, in Sec III, Figure 2, Par. 2) states:

*"An alternatives analysis is required if the proposed wetland development project is determined to qualify as one of the eight allowable uses (Coastal Act, Section 30233). Completion of an alternatives analysis is extremely valuable, as it requires the analyst and the applicant to view the project from a different perspective, which can result in the synthesis of creative designs that significantly reduce or minimize project impacts."*

No alternative analysis has been conducted to determine whether a significant part of the activities planned at the Terrace Point site (especially support spaces) could be located in reasonable proximity, at other sites which are not as environmentally sensitive.

We also draw the Commission's attention to the communication, in the record, from the US Department of the Interior, Fish and Wildlife Service, dated December 8, 2005, which

deals with the impact of the proposed development on the California red-legged frog, an endangered species. Page 4 of the letter contains the following conclusion:

*"Therefore, because the proposed project involves construction and operational activities within 100 meters of the site where the species has been documented at the northern edge of the project area, we believe these activities may result in take of California red-legged frogs."*

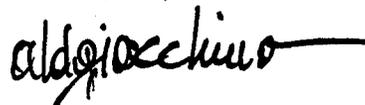
The CLRDP, in its quest to maximize development of the site, proposes an inadequate buffer for this species' habitat, significantly below the 100 meters (330 feet) recommended by the Fish and Wildlife Service. It would be particularly distressing to allow a public research institution, to further impair an endangered species for the sake of its own aggrandizement through an excessively intense development.

### **Conclusion.**

We encourage the Commission to deny certification of the CLRDP in its present form because of the significant environmental problems that it presents in relation to the prominence of this major coastal site. The development is excessive in its overall scope. Housing uses must be eliminated from the site. The size and height of the research facilities must be reduced. The visual qualities of the site must be preserved, the environmentally sensitive wetlands must be better delineated and protected, and sufficient buffers to protect endangered species must be required.

Thank you for the opportunity to submit these comments.

Sincerely,



Aldo Giacchino  
Chair, Executive Committee  
Sierra Club-Santa Cruz County Group



Alan C. Lloyd, Ph.D.  
Agency Secretary

# California Regional Water Quality Control Board Central Coast Region



Arnold Schwarzenegger  
Governor

Internet Address: <http://www.waterboards.ca.gov/centralcoast>  
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906  
Phone (805) 549-3147 • FAX (805) 543-0397

January 6, 2006

John Barnes  
Director of Campus Planning  
University of California, Santa Cruz  
Physical Planning and Construction  
1156 High Street  
Santa Cruz, CA 95064

## **SUPPLEMENTARY COMMENTS – UC SANTA CRUZ 2005 LONG RANGE DEVELOPMENT PLAN DRAFT EIR, INFRASTRUCTURE IMPROVEMENT PROJECT, 2300 DELAWARE AV., FAMILY STUDENT HOUSING REDEVELOPMENT, SCH# 2005012113**

Mr. Barnes:

Upon further review, the Central Coast Regional Water Quality Control Board (Water Board) offers these additional comments to the comment letter dated December 19, 2005, for your review.

### **Wetland Delineation**

It has been brought to the Water Boards attention that portions of the north campus, which are proposed for development under the 2005 LRDP DEIR, contain jurisdictional wetlands. Section 4.4.1.7 of the LRDP DEIR contains a brief discussion of wetland habitat at UCSC. However, Section 4.8 (Hydrology and Water Quality) of the DEIR makes no mention of wetland habitat or mitigation for potential loss of wetlands. As noted in the previous letter, the Water Board, under the CWA Section 401, must certify any permit issued by the Army Corps of Engineers per Section 404 of the CWA. Where the Army Corps determines they have no jurisdiction, the Water Board may issue Waste Discharge Requirements or conditional waivers of WDRs to address discharges to wetlands per the Porter Cologne Water Quality Act. A formal, campus-wide wetland delineation should be performed and incorporated into the 2005 LRDP EIR prior to specific development project proposals and before further evaluation of the 2005 LRDP DEIR. For additional information regarding section 401 Water Quality Certification, please contact Dominic Roques at (805) 542-4780, [droques@waterboards.ca.gov](mailto:droques@waterboards.ca.gov).

### **Mitigation Funding**

Water Board staff is concerned with UCSC's history of failure to comply with mitigation requirements due to "lack of funding." UCSC's 2004 Mitigation Monitoring Program Report repeatedly states that mitigation measures were not implemented due to "lack of funding" and "budget constraints." Such terms are unacceptable. Water Board staff

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Exhibit C1

would like to reiterate that **mitigation funding is not to be budget dependent**. Funding for development mitigation design must be a priority and should receive adequate funding before project design begins. Water Board staff previously noted this concern in our comment letter to the Notice of Preparation for the 2005 LRDP dated February 25, 2005. However, the 2005 LRDP DEIR provides no assurance that mitigation funding will be a priority. Water Board staff does not want to see this problem repeated for the 2005 LRDP's prescribed mitigation. Water Board staff requires the 2005 LRDP EIR to address how UCSC will ensure that mitigation will be a priority and receive adequate funding.

**If you have questions regarding this matter, please contact Brandon Sanderson at (805) 549-3868, [bsanderson@waterboards.ca.gov](mailto:bsanderson@waterboards.ca.gov), or Donette Dunaway at (805) 549-3698, [ddunaway@waterboards.ca.gov](mailto:ddunaway@waterboards.ca.gov).**

Sincerely,

Roger W. Briggs  
Executive Officer

cc: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044

File: SCH 2005012113 - UCSC LRDP DEIR Supplementary Comment Letter 2006\_1  
S:\CEQA\CEQA Tracking\Santa Cruz County  
Task: Storm Water EIR Review





Alan C. Lloyd, Ph.D.  
Agency Secretary

# California Regional Water Quality Control Board Central Coast Region



Arnold Schwarzenegger  
Governor

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December 19, 2005

John Barnes  
Director of Campus Planning  
University of California, Santa Cruz  
Physical Planning and Construction  
1156 High Street  
Santa Cruz, CA 95064

**COMMENTS – UC SANTA CRUZ 2005 LONG RANGE DEVELOPMENT PLAN  
DRAFT EIR, INFRASTRUCTURE IMPROVEMENT PROJECT, 2300 DELAWARE  
AV., FAMILY STUDENT HOUSING REDEVELOPMENT, SCH# 2005012113**

Mr. Barnes:

Thank you for the opportunity to review and comment on the October, 2005 Draft Environmental Impact Report (EIR). We understand that the project is a land use plan that supports projected population growth and physical development of the UC Santa Cruz campus and offsite facilities over the next 15 years. It also evaluates the Infrastructure Improvement Project, 2300 Delaware Av. Project, and Family Student Housing Redevelopment Project, which will be tiered from the LRDP EIR.

As you may be aware, the Central Coast Regional Water Quality Control Board (Water Board) is a responsible agency charged with the protection of the Waters of the State of California in the Central Coast Region. Waters of the State include surface waters, ground waters, and wetlands. The Regional Board is responsible for administering regulations established by the Federal Clean Water Act and the California Water Code (Porter-Cologne Water Quality Control Act). The regulations cover discharges to surface water, groundwater, and discharges to land that may affect ground water quality, and may apply to this project.

We find the information provided in the Draft EIR to be inconsistent with the NPDES General Permit for construction activity and inadequate at addressing source control of stormwater runoff, which would ultimately affect water quality. **To facilitate the regulatory review process, we offer the following suggestions for your review.**

**NPDES Construction General Permit**

Section 4.8.2.4 (LRDP Impact HYD-2) states that construction on sites smaller than one acre are not subject to the requirement for construction-phase SWPPPs. This statement is inconsistent

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with the General Permit. Construction activity that results in soil disturbance of less than one acre is subject to the NPDES General Permit regulations, including the SWPPP, if the construction activity is part of a larger common plan of development (UCSC LRDP) that encompasses one or more acres of soil disturbance (Fact sheet for Water Quality Order 99-08-DWQ, NPDES Construction General Permit). For further reference please see:

<http://www.swrcb.ca.gov/stormwtr/docs/finalconstpermit.pdf>

### **Stormwater Source Control**

Water Board staff is concerned that existing and foreseeable future erosion and sedimentation issues are not being addressed at the source of the problem as development continues through the proposed expansion of the UCSC campus. UCSC has experienced extensive erosion and excessive sedimentation to its natural drainage system that is largely due to increased runoff from impervious surfaces. Future development will add more impervious surface to the UCSC campus, thus exacerbating the erosion and sediment problems. Water Board staff has concerns with regards to erosion, sedimentation, urban pollutants, and the lack of source stormwater controls. The following are some specific examples that validate these concerns:

1. The Stormwater and Drainage Master Plan states, "On-going channel incision is so severe in many campus drainages that it is a significant consideration with regard to the use of natural drainage channels for stormwater conveyance, and limits future development options" (Kennedy/Jenks Consultants 2004).
2. Many of the campus sinkholes used for stormwater discharge conveyance are at capacity from increased sedimentation, resulting in downstream flooding, increased sediment, and urban pollutant loads to creeks and other water bodies.
3. The eastern portion of campus that drains to the San Lorenzo River Watershed is currently receiving concentrated stormwater runoff, contributing to deep incision, channel bank failure, and erosion to the San Lorenzo Watershed. This raises a particular concern since the San Lorenzo River is currently listed under the Clean Water Act 303(d) list for sediment impairment.
4. The Stormwater and Drainage Master Plan states, "Any future development to the North Campus area is prohibited due to heavy erosion from increase in surface runoff as a result of increased impervious area" (Kennedy/Jenks Consultants 2004). This area is described as having highly erosive soil that relies on natural infiltration to accommodate stormwater flow. However, the Draft EIR proposes an increase from 7 acres to 54 acres of impervious surface, resulting in a 31 percent increase in runoff.
5. Section 4.8.2.4 of the Draft EIR (LRDP Impact HYD-3) is determined significant yet unavoidable. This is not an acceptable determination under current conditions. These conditions only exist under conventional stormwater management design and therefore, can be resolved by implementing design standards that control stormwater at the source.

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As the University expands, the amount of impervious area that is projected to be added to the campus almost doubles. Along with this comes higher flow rates, greater volume, and increased urban pollutant levels. We feel that a preventative approach must be taken to address these issues so that extensive erosion and sedimentation do not persist.

Proposed stormwater drainage system improvements focus on channel alteration, detention, and diversion of stormwater flows. These improvements may help with existing erosion and sedimentation issues. However, they will not prevent the problem from reoccurring in the future. UCSC Campus Standards Handbook repeatedly states, "Storm drainage design shall provide for detention of stormwater runoff so that the post-development runoff rate does not exceed the pre-development runoff rate." The University is currently not meeting these pre-development runoff standards, resulting in extensive erosion to the campus natural drainage system. Subsequently, stormwater runoff detention addresses peak flow rates but does not address overall volume of stormwater flows. Increased volume still contributes to downstream erosion even when runoff is released at smaller amounts over longer periods of time. In addition, we are concerned that stormwater drainage system improvements may not be implemented before new buildings and other impervious surfaces are constructed, as stated in the Draft EIR section 4.8.2.4 page 33.

We highly suggest that the University takes a preventative approach to erosion control, sedimentation, and urban pollutants by controlling stormwater at the source. To accomplish this we suggest implementing Low Impact Development (LID) Design Standards to all new development and to existing development where feasible. LID captures stormwater at the source, allows stormwater to infiltrate, and prevents further water quality impacts (erosion, sedimentation, and urban pollutant loads) from occurring downstream.

### **Low Impact Development (LID)**

LID is an alternative site design strategy that uses natural and engineered infiltration and storage techniques to control stormwater runoff where it is generated. LID combines conservation practices with distributed stormwater source controls and pollution prevention to maintain or restore watershed functions. The objective is to disperse LID devices uniformly across a site to minimize runoff (Anne Guillette, Whole Building Design Guide).

LID reintroduces the hydrologic and environmental functions that are altered with conventional stormwater management. LID helps to maintain the water balance on a site and reduces the detrimental effects that traditional end-of-pipe systems have on waterways and the groundwater supply. LID devices provide temporary retention areas; increase infiltration; allow for nutrient (pollutant) removal; and control the release of stormwater into adjacent waterways (Anne Guillette, Whole Building Design Guide). For further reference please see:

<http://www.epa.gov/owow/nps/lid/>

### **Ten Common LID Practices Include:**

1. Site Design Layout to Reduce and Disconnect Impervious Surfaces
2. Rain Gardens and Bioretention

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UCSC CLRDP

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3. Rooftop Gardens
4. Tree Boxes to Capture and Infiltrate Street Runoff
5. Vegetated Swales, Buffers, and Strips; Native Vegetation Preservation
6. Roof Leader Flows Directed to Rain Gardens
7. Rain Barrels and Cisterns
8. Permeable Pavers
9. Soil Amendements
10. Pollution Prevention and Good Housekeeping

### **Water Quality Certification**

The Water Board must certify that any permit issued by the Army Corps of Engineers per Section 404 of the Clean Water Act complies with state water quality standards, or deny certification. Section 401 Water Quality Certification is necessary for all Section 404 permits, including reporting and non-reporting Nationwide permits. Proponents of any project requiring a Section 404 permit from the Army Corps of Engineers should apply for Section 401 Water Quality Certification. Applications are available on-line at:

<http://www.waterboards.ca.gov/centralcoast/401WQCert/Index.htm>.

For Water Quality Certification, the Water Board requires that alternatives be considered for projects resulting in impacts on streams and wetlands. We also require mitigation of wetland impacts at a ratio of 3:1, mitigation of riparian impacts at a ratio of 1:1, and mitigation of streambed impacts at a ratio of 2:1 (through enhancement of riparian habitat).

Additionally, any project that involves disturbance of a streambank or riparian area must also obtain a Streambed Alteration Agreement from California Department of Fish and Game. *Evidence of CEQA compliance must be available before CWA Section 401 Water Quality Certification can be obtained.*

If you have questions regarding this matter, please contact Brandon Sanderson at (805) 549-3868, [bsanderson@waterboards.ca.gov](mailto:bsanderson@waterboards.ca.gov), or Donette Dunaway at (805) 549-3698, [ddunaway@waterboards.ca.gov](mailto:ddunaway@waterboards.ca.gov).

Sincerely,

Roger W. Briggs  
Executive Officer

cc: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044

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Exhibit C1  
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File: SCH 2005012113 - UCSC LRDP EIR Comment Letter 2005\_12  
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Task: Storm Water EIR Review

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Watershed Systems

Robert

Curry, Ph.D., P.G.

Hydrology - Geology - Soil Science

600 Twin Lanes, Soquel, Calif. 95073

831 426-6131; FAX 426-9604; curry@ucsc.edu

field: 760 932-7700

Nov 23, 2005

Charles Lester, Deputy Director of the Central Coast District  
Office, California Coastal Commission  
725 Front Street, Suite 300  
Santa Cruz, CA 95060-4508

By FAX (831) 427-4877

Re: Terrace Point Coastal LRDP- UCSC

Gentlepeople:

I am addressing a single issue among the many controversial points that you must evaluate for your staff recommendations. That issue is the definition of wetlands used by UCSC's consultants.

The public is being asked by UCSC through its Coastal LRDP EIR to accept a completely non-standard definition of wetlands. Non-standard definitions are allowed under the federal interagency rules where there are special conditions and where the exceptions can be justified. It is imperative that the applicants accurately justify their request for any exceptions to the standard 3-element rule.

The Huffman-Broadway Group (HBG) who conducted the wetland delineation for UCSC developed a painfully obtuse justification for their decision to eliminate several areas of potential wetland from consideration either under what they term the "Corps of Engineers rules" and those subject to the California Coastal Act<sup>1</sup>. In my opinion, based on my work with the U.S. Environmental Protection Agency and the State of California Water Quality Control Boards on matters of wetland delineation, the conclusions of the HBG have not met the criteria for justification and cannot meet that criteria. I believe that the Coastal Commission would be in error if they accept the final delineation as proposed by HBG.

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<sup>1</sup> Huffman-Broadway Group, Inc., *Investigation of the Geographic Extent of Wetlands and Other Environmental Sensitive Habitat Areas on Terrace Point and Younger Lagoon Reserve*, University of California, Santa Cruz. Prepared for the University of California, Santa Cruz. April 2002. Larkspur, California 46 pp. plus

Specifically, HBG rejects soil color (hue and chroma) as a criterion for hydric soil classification because they contend that the dark colors of some of the soils that my investigations found to be seasonally reducing in eH was a condition inherited from prior agricultural use of the site. The three-agency federal rules do allow the delineator to reject soil color as diagnostic tool where the naturally dark colors mask soil organic content. The most common site condition for dark soils that are not dark because of organic matter is that of soils high in dark volcanic glass. Other dark minerals can also mask organic accumulations in soil. But HBG believes these Terrace Point soils are dark because of accumulations of agricultural crop residues, presumably left from the 1960's when this site was a brussel-sprout field. I mapped these soils in the 1960's and dug many pits to verify that they were organic rich where seasonally ponded water drained slowly due to perched water tables.

It matters not at all what the source of the dark organic matter is, so long as it is reducing and so long as those reducing conditions are reflected in the seasonal vegetation. If the soils are reducing, have standing or shallow groundwater and some season, and if plants are growing at that season, then the three criteria are present for wetland classification. I believe that at least a major portion of the soil organic matter is inherited from long-standing seasonal wetland conditions prior to agricultural use. HBG believes it is agriculturally induced. But in either case, the soils meet the criterion for seasonally reducing.

Further confounding the HBG delineation of statutory wetlands at Terrace Point is their contention that some of the sites that had surface saturation or shallow saturation during winter months, and would otherwise be classed as meeting the wetland hydrology criterion, were simply perched water tables or sites of very slow infiltration capacity where water accumulated near the surface but not at depth. In fact, that is exactly correct and is, indeed, a valid criterion for wetland hydrology. The Terrace Point soils are derived from deposits on a marine terrace cut by waves on the Santa Cruz Mudstone. That shallow underlying bedrock deposit is virtually impermeable to seasonal precipitation. The overlying beach deposits are thus subject to seasonal standing water that slowly moves seaward along the 0.5-degree gradient on the wave-cut bedrock surface and that saturates much of the terrace deposit and leads to rapid weathering of the beach sands to form clay minerals that plug and restrict water movement. This is what creates local perched water tables or zones of slow downward percolation. That is precisely the condition that is considered wetland hydrology. The local wetlands are not isolated as defined under the SWANCC decision<sup>2</sup> because the waters are interconnecting and flow to the sea during large storm events in wet

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<sup>2</sup> Based on the Supreme Court ruling in *Solid Waste Agency for Northern Cook County v. U. S. Army Corps of Engineers* (SWANCC) concerning the Clean Water Act jurisdiction over isolated waters (January 9, 2001), nonnavigable, isolated, intrastate waters based solely on the use of such waters by migratory birds are no longer defined as waters of the United States. Jurisdiction of non-navigable, isolated, intrastate waters may be possible if their use, degradation, or destruction could affect other waters of the United States, or interstate or foreign commerce.

years. Further the California Coastal Act rules protect isolated wetlands in the Coastal Zone.

Finally, Huffman proposes that some of the plants that exist in wetland pockets and areas on the Terrace Point site are not all wetland indicators because, although so classified, they also exist in uplands or are not indicators in this particular site.

HBG can, under the three-element rules currently in force, dismiss one or more criteria for special reasons. Indeed, plants can be false indicators. The plants that are wetland indicators on the 1<sup>st</sup> (lowest) marine terrace throughout coastal Monterey Bay and San Mateo County are widespread and tolerant of many conditions. But the bottom line question that the Coastal Commission must ask is "Do the conditions at Terrace Point reflect seasonal reducing conditions that improve or maintain water quality?". With high organic matter in soils and seasonally reduced infiltration of ample rainfall, are the wetland-indicator native plants found at Terrace Point indicators of wetland conditions?

HBG proposes special conditions for Terrace Point. The site was once agricultural fields. The soils are high in clay content. The clay content varies laterally, possibly due to past land uses. Saturated or near saturated soil conditions within the rooting zone vary from site to site and year to year. Some of the indicator species found on site clearly grow in non-saturated sites. The dark surface soils may reflect past conditions. The growing season is 365 days long so the coincidence of the three criteria may not reflect conditions throughout the year. But none of these are valid excuses for abrogating the wetland classification rules. HBG does not justify ignoring the standard methodology. That methodology is carefully crafted to preserve sites where seasonal or permanent water quality enhancement is possible because of local site conditions.

In my professional opinion, the HBG delineation should be reexamined and the oxy-redox status of the soils should be assessed electronically, without using carcinogenic alpha-alpha' dipiradryl, to determine wetland status under wintertime saturated conditions where plant species indicate potential wetland status.

Sincerely,

Robert R. Curry

**Exhibit D: Campus CLRDP Buildout Photosimulations**

Exhibit D consists of photos over which are superimposed depictions of Campus facilities at buildout under the CLRDP if it were to develop pursuant to CLRDP Figure 7.2. Note that Figure 7.2 is an illustrative example and thus only represents one way that the Campus could develop pursuant to the proposed CLRDP. As a result, the photosimulations need to be understood as one example of Campus buildout according to the proposed CLRDP building program.

DEVELOPMENT



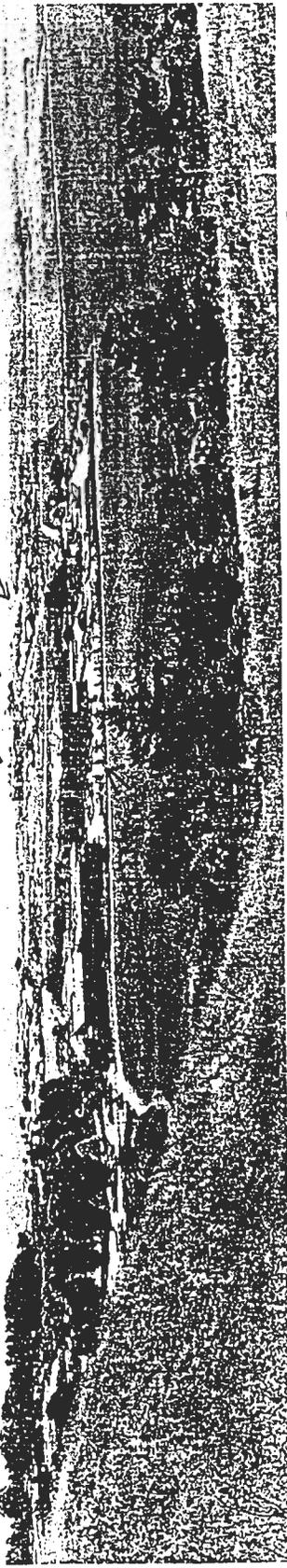
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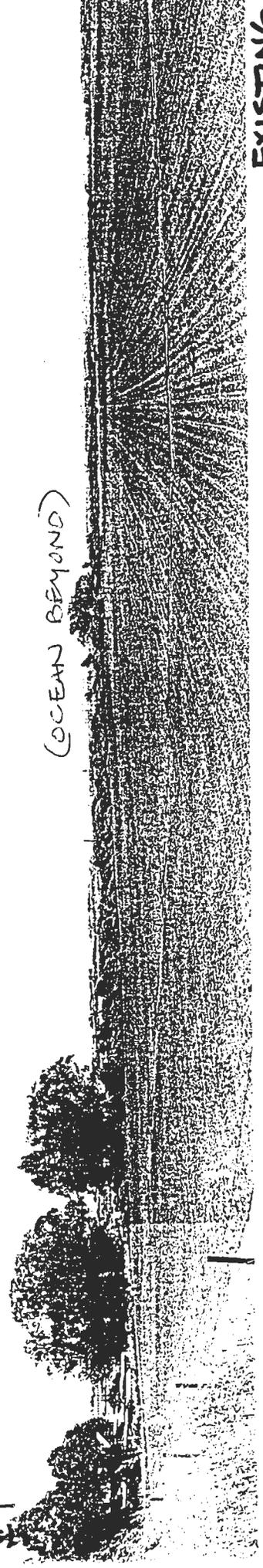
HOTOSIMULATION: VIEW FROM MOO. ; CREEK PRESERVE (VIEW TOWARDS SC H)

CAMPUS DEVELOPMENT



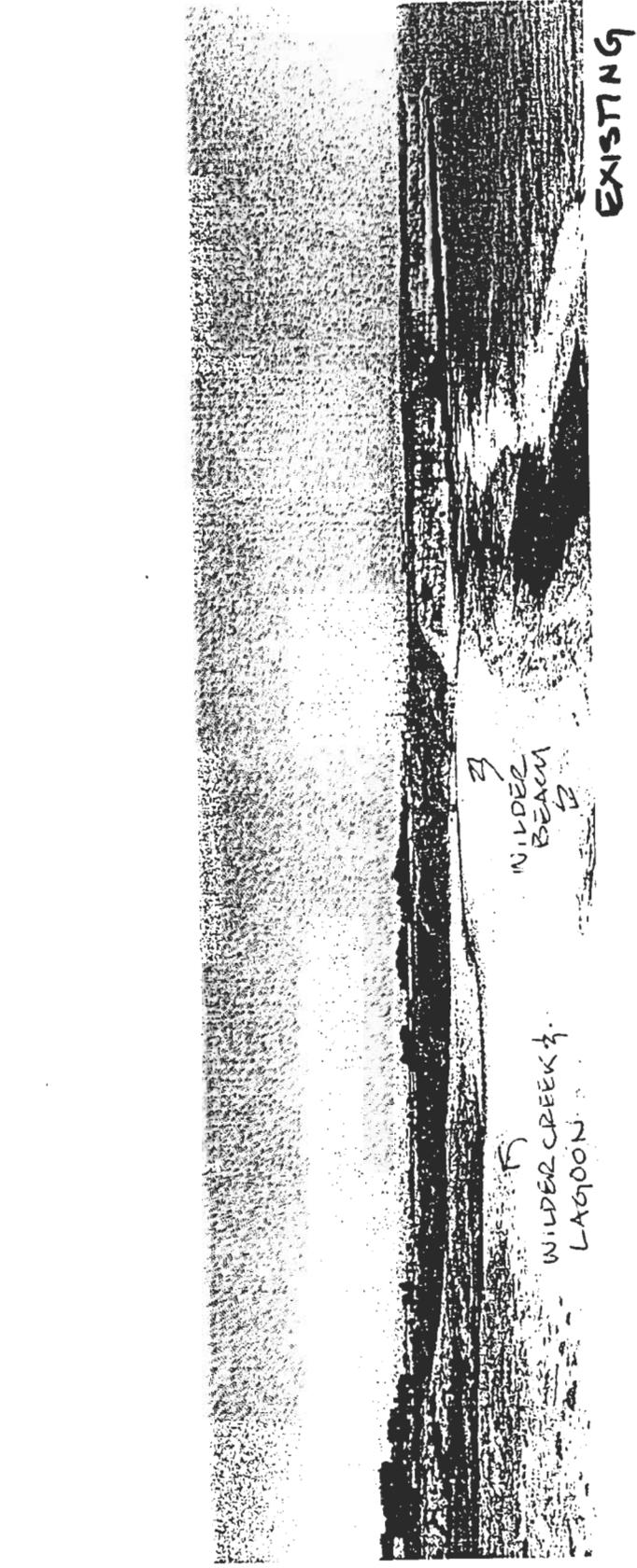
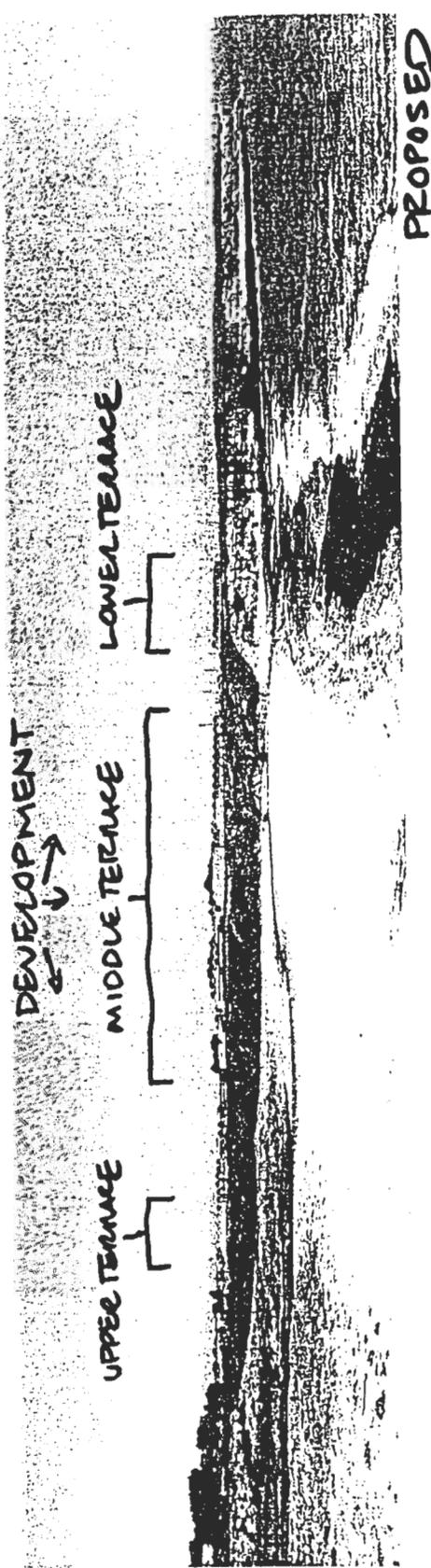
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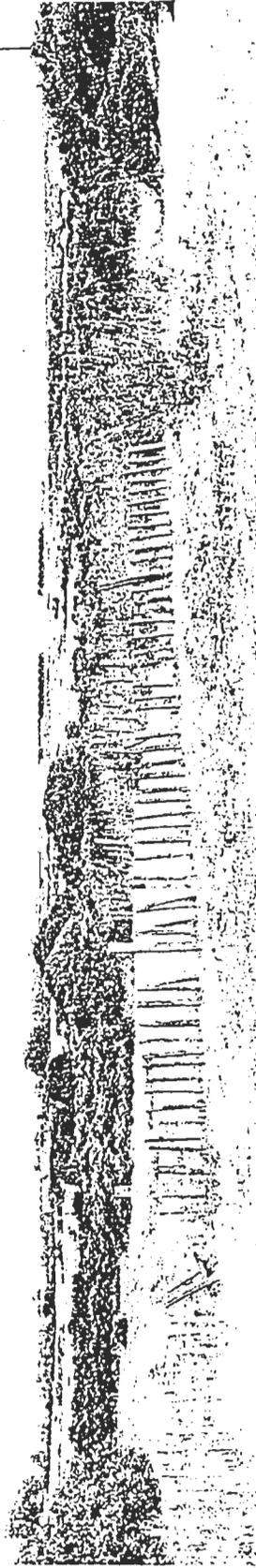
PHOTOSIMULATION: VIEW FROM SOUTHBOUND HIGHWAY ONE (VIEW TOWARDS SOUTHEAST)



PHOTOSIMULATION: VIEW FROM WILDER BEACH STATE PARK BEACH TRAIL  
(VIEW TOWARDS EAST)

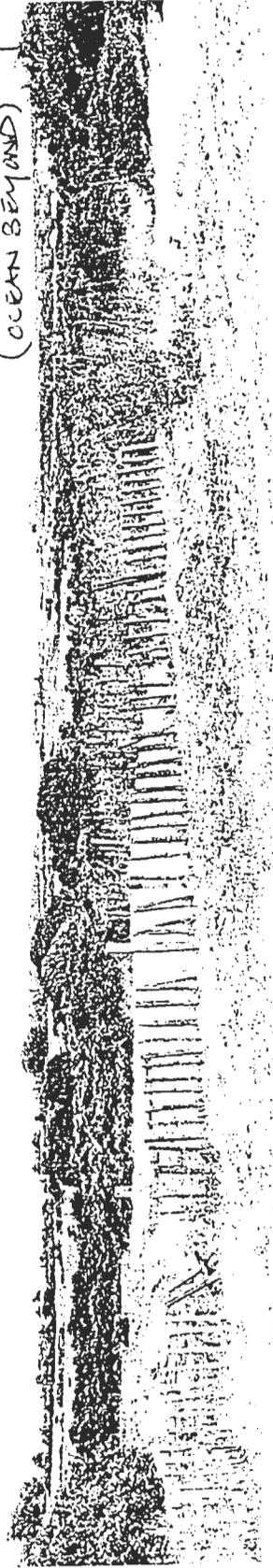
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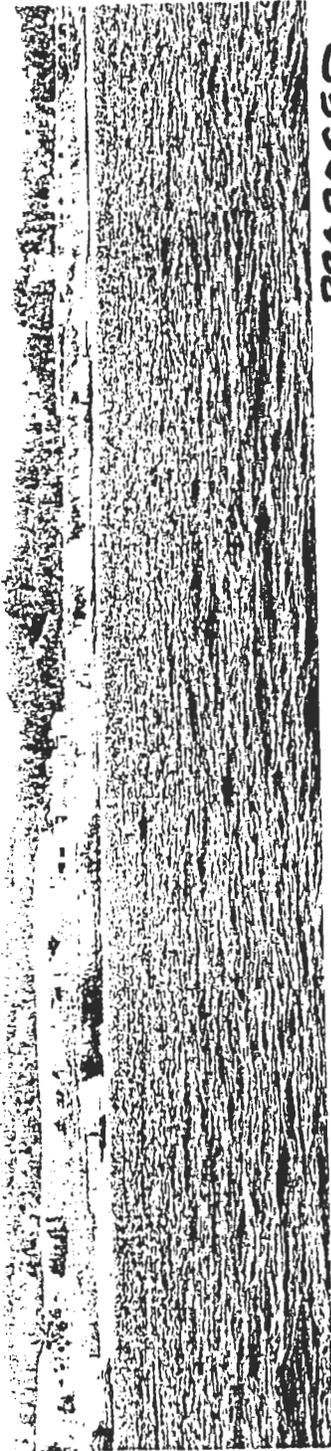
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PHOTOSIMULATION: VIEW FROM WILDEE RANCH PARKING LOT (VIEW TOWARDS SOUTHEAST)

LOWER TERRACE DEVELOPMENT

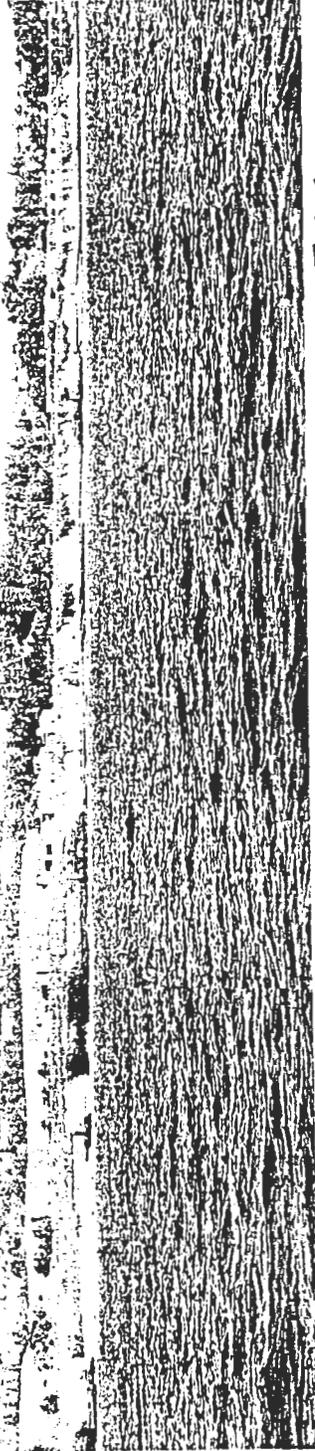


PROPOSED

YOUNGER LAGOON



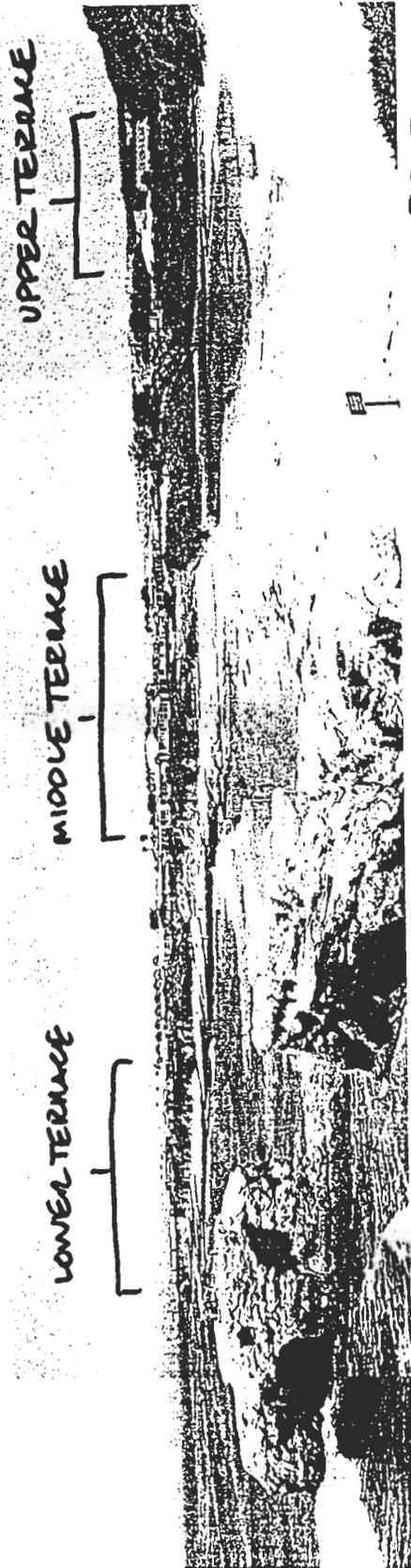
DEANZA MHP



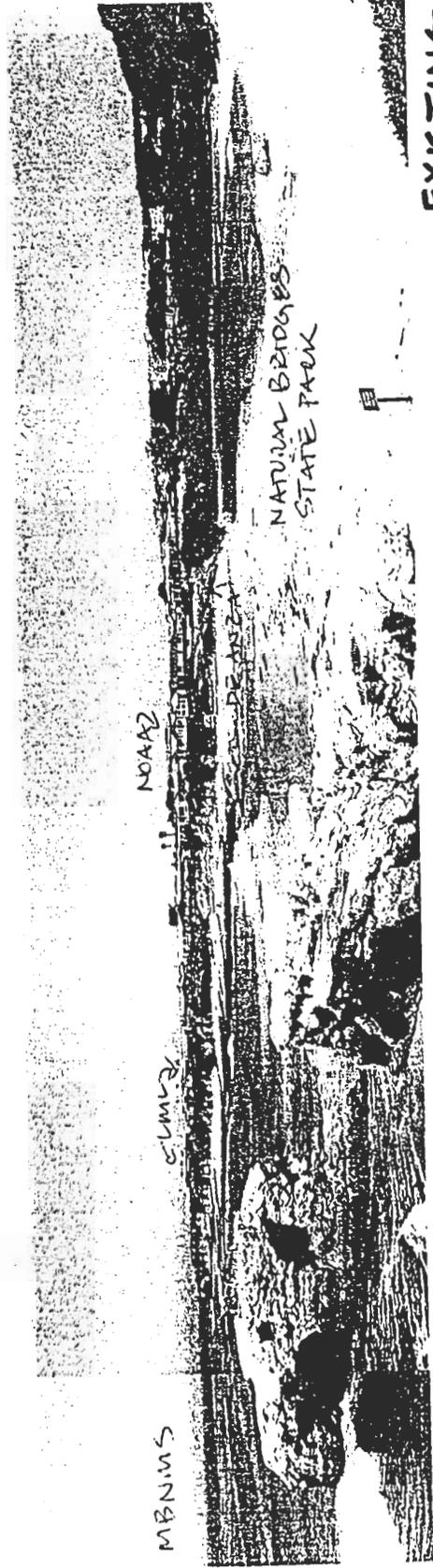
EXISTING

PHOTOSIMULATION: VIEW FROM OF HORE (VIEW TOWARDS NORTH)

DEVELOPMENT  
← ↓ →



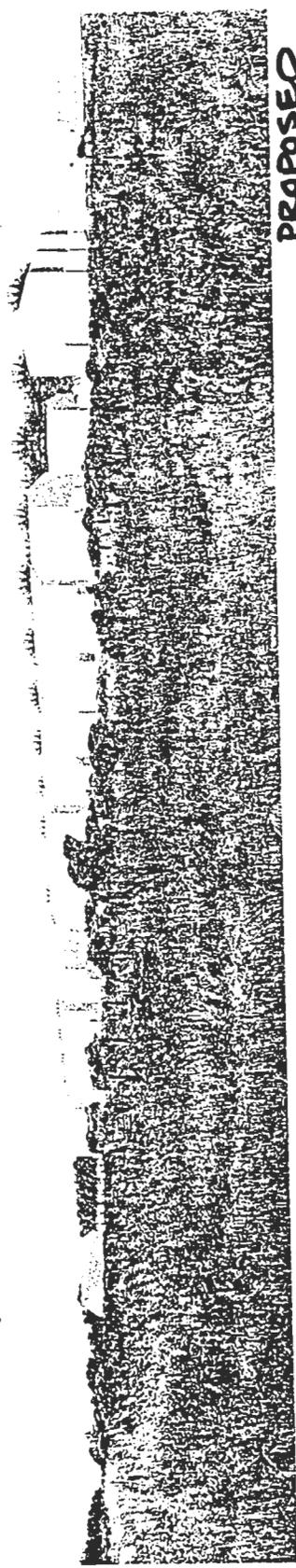
PROPOSED



EXISTING

PHOTOSIMULATION: VIEW FROM NATURAL BRIDGES STATE PARK (VIEW TOWARDS WEST)

MIDDLE TERRACE DEVELOPMENT



PROPOSED

(OCEAN BEYOND)

NEAR

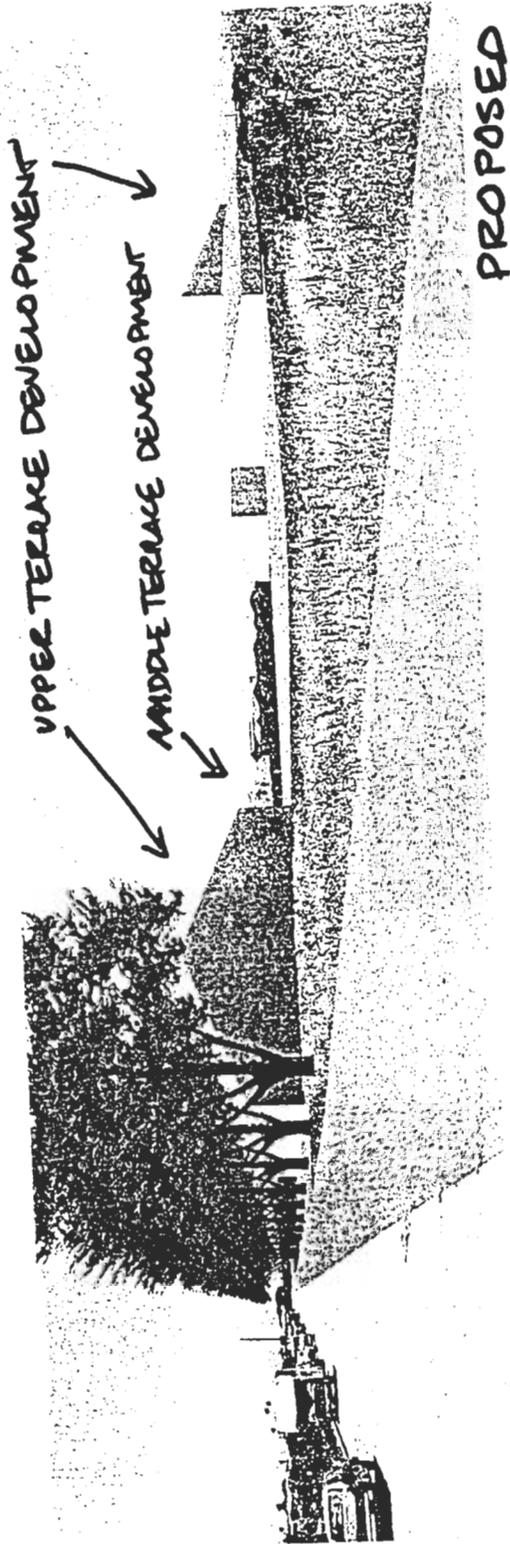
CPFG 2

DE ANZA

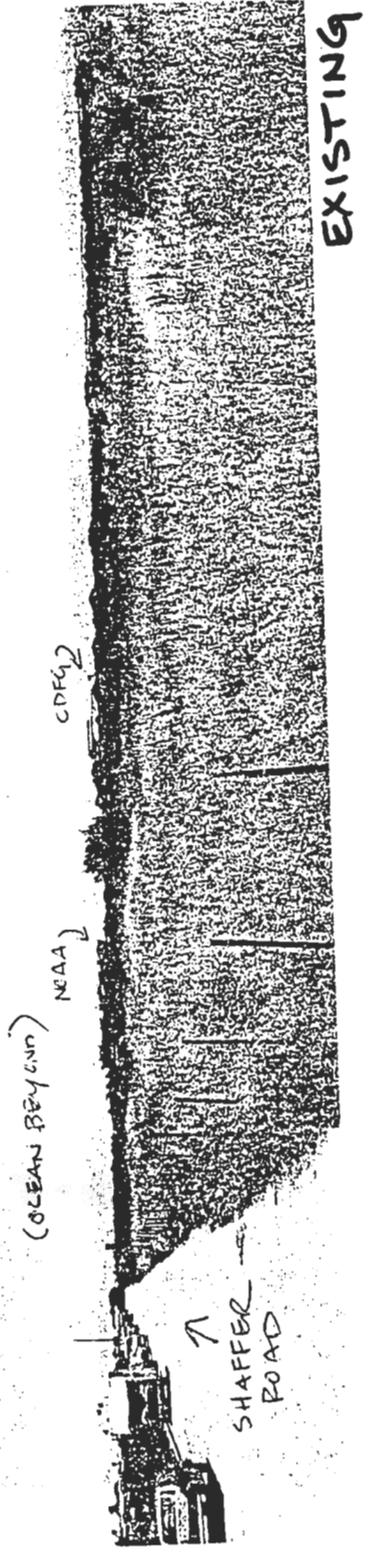


EXISTING

PHOTOSIMULATION: VIEW FROM NEAR CANAL ENTRANCE (VIEW TOWARDS SOUTHWEST)



PROPOSED



EXISTING

PHOTOSIMULATION: VIEW FROM SHAFFER ROAD AT RAILROAD TRACKS  
(VIEW TOWARDS SOUTHWEST)