University of California Santa Barbara and Channel Islands National Marine Sanctuary

Ocean Science Education Building

Environmental Assessment and Initial Study / Mitigated Negative Declaration

URS

Prepared For:
University of California, Santa Barbara
Office of Campus Planning & Design

and

National Oceanic and Atmospheric Administration
Channel Islands National Marine Sanctuary

Prepared By:
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EXECUTIVE SUMMARY

The National Oceanic and Atmospheric Administration (NOAA) Office of National Marine Sanctuaries (ONMS) and the Regents of the University of California (The Regents) are jointly proposing to establish an Ocean Science Education Building (OSEB) at the University of California, Santa Barbara (UCSB) Main Campus. The two-story OSEB structure will have two wings totaling 15,284 gross square feet (GSF). One wing would accommodate the UCSB Marine Science Institute's (MSI) proposed Outreach Center for Teaching Ocean Sciences (OCTOS) and the other wing would serve as a headquarters for NOAA's Channel Islands National Marine Sanctuary (CINMS or the Sanctuary). A Cooperative Relations Agreement was established between NOAA and The Regents in which the ONMS would provide funding to the UCSB for the planning, design, and construction of the OSEB by the UCSB office of Design and Construction. The agreement anticipates that The Regents would own the facilities and lease space to the ONMS. The OSEB will serve as an interactive educational facility designed to meet both MSI and Sanctuary education goals through hands-on instruction and investigation while also serving as a CINMS administrative headquarters.

This Environmental Assessment (EA) and accompanying Initial Study/Mitigated Negative Declaration (IS/MND) have been prepared jointly pursuant to the National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) (*California Public Resources Code* 21000–21177). The joint EA/IS conforms to NOAA Administrative Order 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act* (amended May 20, 1999) and CEQA Statutes and Guidelines (*Public Resources Code* Section 21000 et. seq. and *California Code of Regulations*, Title 14, Division 6, Chapter 3, Sections 15000–15387, respectively). The main body of this EA addresses elements required by NOAA under NEPA. Consistent with the analysis in the EA, Appendix A contains a stand-alone IS/MND that supports UCSB policies and findings under CEQA. These documents analyze direct, indirect and cumulative environmental impacts of the proposed action and the potential for significant environmental and growth-inducing effects to occur on the human environment.

An Environmental Impact Report (EIR) for the UCSB 1990 Long Range Development Plan (1990 LRDP) was prepared and certified in 1990. The UCSB Campus has also prepared a 2008 Draft LRDP and accompanying Draft EIR which is being circulated for public review. The proposed project is consistent with the 1990 LRDP and the 2008 Draft LRDP, where relevant to the proposed project. Prior to initiating the proposed action, UCSB will amend Figure 16, Potential Building Locations, in its 1990 LRDP to identify proposed development at the preferred project location. The 2008 Draft LRDP is

undergoing public comment and review prior to consideration for approval by The Regents.

This Draft EA analyzes the proposed action at a preferred site and the no-action alternative. No other viable alternatives were considered. The Draft EA and Draft IS/MND each describe the proposed action and environmental setting, and analyze associated environmental consequences within each of the following topics and resource areas:

- Land Use and Coastal Zone Management
- Geological and Agricultural Resources
- Hydrological and Surface Water Resources
- Air Quality
- Recreational Resources
- Cultural Resources
- Biological Resources
- Floodplains and Wetlands
- Aesthetics
- Transportation
- Utilities and Public Services
- Hazardous Materials
- Socioeconomics
- Cumulative Impacts

The Draft EA and accompanying Draft IS/MND in Appendix A characterize each environmental impact and cite mitigation measures to reduce anticipated impacts to a less-than -significant level. A summary of mitigation measures is provided within each document.

Public review and opportunity to comment on the content of the Draft EA/IS has been provided. Comments from federal, state, and local agencies, various organizations, and the public were sought during a 30-day comment period starting July 28, 2008, and ending August 28, 2008.

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
APCD	Air Pollution Control District
AFY	acre-feet of water per year
ASF	assignable square foot (feet)
ASTM	American Society of Testing and Materials
Bio II	Biological Sciences II Building
Btu	British thermal unit
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAP	Clean Air Plan
CAPCOA	California Air Pollution Control Officers Association
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEQA	California Environmental Quality Act
CHRIS	California Historic Research Information System
CINMS	Channel Islands National Marine Sanctuary
CRHR	California Register of Historic Resources
CO	carbon monoxide
dBA Leq	decibels with A-weighted sound level equivalent
DTSC	Department of Toxic Substance Control
EDR	Environmental Database Report
EH&S	Environmental Health and Safety
ESA	Environmental Site Assessment
ESH	environmentally sensitive habitat
FEMA	Federal Emergency Management Agency
FUDS	Formerly Used Defense Sites
GHG	greenhouse gases
GSD	Goleta Sanitary District
GSF	gross square foot (feet)
LCP	Local Coastal Plan
LEED	Leadership in Energy and Environmental Design

LRDP	Long Range Development Plan
LUST	leaking underground storage tank
MCAS	Marine Corps Air Station
MGD	million gallons per day
MSB	Marine Science Building
MSI	Marine Science Institute
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NRHP	National Register of Historic Places
ONMS	National Marine Sanctuaries Program
NOS	National Ocean Service
NPDES	National Pollutant Discharge Elimination System
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
O_3	ozone
OCTOS	Outreach Center for Teaching Ocean Sciences
$PM_{2.5}$	particulate matter (less than 2.5 micros in diameter)
PM_{10}	particulate matter (less than 10 micros in diameter)
REEF	Research Experience & Education Facility
ROC	reactive organic compounds
SHPO	State Historic Preservation Officer
SIP	state implementation plan
SO_2	sulfur dioxide
TAC	toxic air contaminants
UCSB	University of California, Santa Barbara
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank

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1 INTRODUCTION

The National Oceanic and Atmospheric Administration (NOAA) Office of National Marine Sanctuaries (ONMS) and the Regents of the University of California (The Regents) are jointly proposing to establish an Ocean Science Education Building (OSEB) at the University of California, Santa Barbara (UCSB) Main Campus. Under NOAA's programmatic authority under the National Marine Sanctuaries Act (NMSA), 16 *U.S. Code* 1431, a Cooperative Relations Agreement was established in which the ONMS would provide funding to the UCSB for the planning, design, and construction of the OSEB by the UCSB office of Design and Construction. The agreement anticipates that The Regents would own the facilities and lease space to the ONMS to house the CINMS headquarters.

The proposed action involves site preparation and construction of two connected, two-story OSEB structures totaling 15,284 gross square feet (GSF), or approximately 9,730 assignable square feet (ASF). One structure or wing would accommodate the UCSB Marine Science Institute's (MSI) proposed Outreach Center for Teaching Ocean Sciences (OCTOS) and the other wing would serve as a headquarters for NOAA's Channel Islands National Marine Sanctuary (CINMS or the Sanctuary). Functionally, the OSEB will serve as an interactive educational facility, designed to meet both MSI and Sanctuary education goals through hands-on instruction and investigation while also serving as a CINMS administrative headquarters.

ONMS, within the NOAA National Ocean Service (NOS), administers coastal and marine-protected areas for the purposes of resource protection, monitoring, research, interpretation, and education. Under the National Marine Sanctuary System, the CINMS was established in 1980 to manage the ecological, historical, and aesthetic resources of designated marine environments adjacent to California's Channel Islands. To further its administration, interpretation, and education mission for CINMS, the ONMS proposes to establish with The Regents an OSEB at a preferred site owned by the State of California on the Main Campus of UCSB.

An Environmental Assessment (EA) and Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared jointly pursuant to the National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) (*California Public Resources Code* 21000–21177). The joint EA/IS conforms to NOAA Administrative Order 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act* (amended May 20, 1999) and CEQA Statutes and Guidelines (*Public Resources Code* Section 21000 et. seq. and *California Code of*

Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387, respectively). This EA and IS/MND analyzes direct, indirect and cumulative environmental impacts of the proposed action and the potential for significant environmental and growth-inducing effects to occur on the human environment. The main body of this EA addresses elements required by NOAA under NEPA. Consistent with the analysis in the EA, Appendix A contains a stand-alone IS/MND that supports UCSB policies and findings under CEQA.

An Environmental Impact Report (EIR) for the UCSB Long Range Development Plan (LRDP) was prepared in 1990 (UCSB 1990a). This IS/MND does not formally tier off the 1990 LRDP EIR, as provided for in CEQA Guidelines Section 15152(a), but it does incorporate general discussions by reference and concentrates solely on the issues specific to the proposed project, similar to a tiered CEQA document. The UCSB Campus is in the process of updating its LRDP and the 2008 Draft LRDP and it accompanying Draft EIR have been circulated for public review. This IS/MND incorporates environmental setting information, analyses and technical studies, and thresholds of significance from the 2008 LRDP Draft EIR, as relevant to the proposed project.

Prior to initiating the proposed action, UCSB will concurrently amend its 1990 LRDP to identify proposed development at the preferred project location. The proposed action will be identified in Figure 16, Potential Building Locations of the 1990 LRDP. The 2008 Draft LRDP has been prepared and is undergoing public comment and review prior to consideration for approval by The Regents.

Public review and opportunity to comment on the content of the Draft EA/IS has been provided. Comments from federal, state, and local agencies, various organizations, and the public were sought during a 30-day comment period starting July 28, 2008, and ending August 28, 2008. Substantive comments on the Draft EA have been incorporated into this Final EA/IS/MND.

2 PURPOSE AND NEED

The objectives of the project are to: (1) address current space and functional deficiencies in the existing OceansAlive! learning facility located on the UCSB campus and in the existing CINMS headquarters located in the Santa Barbara Harbor, (2) provide for the long-term space needs of the OceansAlive! and CINMS programs, and (3) to support the public service missions of the MSI and CINMS by integrating their outreach and educational programs through the development and use of shared facilities.

The CINMS headquarters, research, education, outreach, and administrative offices are housed in 1,638 square feet of space in the Waterfront Center building located at the Santa Barbara Harbor. These facilities are cramped, lack expansion capability, and have low visitation rates. A total of 14 staff are crowded into an office suite consisting of open plan cubicles, a small reception area, three small private and semi-private offices, and a small storage closet. They also have access to a large conference room, although it is shared by other tenants of the complex. This space, though technically in compliance with the ADA, is sufficiently crowded creating obstacles that could impede access by disabled persons. Additionally, the facility's location does not meet the National Marine Sanctuary Program recommended guideline for views to the water.

The CINMS facility master plan analyzed projected growth and the financial feasibility of relocating all or portions of the CINMS operation to alternative facilities. The study included alternatives, such as leasing options, and the proposed partnership with UCSB. It advised that the Sanctuary retain its Waterfront Center facility to support its vessel operations, enforcement of federal laws and regulations, and direct visitor outreach activities; and importantly, based on both financial and operational analyses, it advised that CINMS endeavor to relocate all of its administration, research (except those related to vessels operations), and general outreach programs to a new joint-use building at UCSB. The study also projected staff growth to eventually increase from 14 to 26, which would require more than 4,000 assignable feet of space in a new building.

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3 ALTERNATIVES CONSIDERED

3.1 NOAA Relocation Alternatives

Given the CINMS mission and the anticipated program requirements for its various management, administrative, operational, education/outreach and enforcement functions, the need for expanded and/or redistributed locations for facilities based on functional needs were analyzed (Booz Allen Hamilton 2003). Analysis of existing and future facilities needs indicates that a distributed approach would be the most effective and sustainable strategy to adopt for CINMS. The characteristics of facility space requirements, including proximity needs to various segments of the regional population, differ substantially by function. These needs can be met most effectively for each function at sites that can accommodate them best, rather than at one or two large, central locations.

A distributed approach retains, replaces or adds CINMS facilities and exhibits at strategic remote locations, such as in the Santa Barbara area, the Ventura Harbor and in Oxnard. CINMS intends to retain limited space at the Waterfront Center in Santa Barbara Harbor to support its existing and planned vessels, maritime operations and maintenance crews, and limited public outreach and limited education activities. Outreach would be targeted to boat owners, guests and tourists at the harbor. Because only certain activities at CINMS require facilities at the Santa Barbara Harbor, it was determined that administrative and certain educational functions should be relocated.

For relocating management/administrative and certain educational/outreach functions, two alternative scenarios exist for establishing new facilities in the greater Santa Barbara area. These scenarios are: (1) relocate most functions and staff to a proposed new joint OSEB complex at UCSB, and (2) lease additional commercial space in the central business district of Santa Barbara.

3.1.1 Scenario 1: Relocate Certain Functions to UCSB

Under this scenario, CINMS would retain limited space in the Waterfront Center in Santa Barbara Harbor, primarily to support its vessel operations. The two Sanctuary vessels and potentially future NOAA vessels would remain home ported in the harbor. Selected public outreach and education activities would also be established targeting yacht owners, guests and tourists visiting the harbor. Virtually all other functions and staff currently housed in the Waterfront Center space would be relocated to a proposed new building adjacent to the MSI at UCSB. Based on the analysis conduct by NOAA in 2003, the Sanctuary would seek up to roughly 5,600 ASF of space at UCSB.

The life-cycle cost to serve these CINMS functions is estimated to be $8.9M. The net present value of this alternative estimated at $5.33M. Annual costs are estimated at $2.0M (2003 dollars) based on $250 per square foot plus operations and maintenance. The life cycle cost is the sum of all costs associated with the alternative for the entire time period under consideration. In this case, 2003 dollars were escalated at 3 percent per year to account for inflation. This average inflation rate is used by the U.S. General Services Administration and the U.S. General Accounting Office. The net-present value accounts for the time value of money. It is the value in today's dollars of a future expense in inflated dollars and takes into account the return that would be realized through an alternative investment of the funds. The future costs are discounted back to the present year.

3.1.2 Scenario 2: Lease Commercial Space in Central Santa Barbara

Under this scenario, CINMS would lease commercial office space in the central business district of Santa Barbara to accommodate certain staff and activities currently located at Santa Barbara Harbor. An existing lease providing limited office space for the ONMS Regional Coordinator at 735 State Street would expire and not be renewed.

Leasing commercial office space in the central business district would provide additional public visibility to CINMS. However, other than the public outreach and education functions, the Sanctuary operations include research, enforcement, and administration. They do not depend on strong interactions with local residents, tourists or the general public. Thus, NOAA determined that there is no compelling reason for most of the Sanctuary staff and functions to be located in a highly visible location. Public recognition and Sanctuary visibility can be achieved more effectively through exhibits and interpretive signage at critical locations.

Based on CINMS program assessments for staffing and support space requirements in 2004, the life-cycle cost of leasing 7,518 SF at $1.80 square foot per month and escalated annually at 3 percent average inflation over the life of the project (typically over 20 years). The life-cycle cost to serve these CINMS functions is estimated at $15.5M. The net-present value would be $4.51 million.

NOAA has determined that only one feasible scenario will effectively support its overall mission and future program needs, specifically a distribution of CINMS facilities that includes administrative and certain educational/outreach functions at a combined OSEB at UCSB campus. Only this preferred alternative would be acceptable to NOAA and is the only action-alternative analyzed in this EA.

3.2 No-action Alternative

The no-action alternative was also considered. Under the no-action alternative, there would be no change in existing conditions at the preferred project location. The preferred project location would retain its current use indefinitely and be available for other UCSB-designated uses. A CINMS administrative and education facility of the size and focus proposed would either be delayed or reduced, or reassessed under new program requirements at another location in the region.

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4 PROPOSED ACTION

The proposed NOAA action would occur at a preferred site on the UCSB campus located in the county of Santa Barbara, approximately 10 miles north of the city of Santa Barbara and adjacent to the CINMS (see Figure 1). A location on the east side of the UCSB Main campus with views of the CINMS has been proposed to accommodate the proposed facilities. See Figures 2(a), 2(b), and (3). A roughly 1.1-acre property will be cleared and developed as described below to accommodate the OSEB structures, a bus turnout, bicycle parking, pedestrian circulation, and utility improvements. See Figures 4, 5(a), and 5(b). Site photographs are presented in Figure 6a through 6d. The project location is within Township 4 North, Range 28 West, Section 20, within the Goleta, California, U.S. Geological Survey quadrangle map, photorevised 1988 (USGS Code 34119D7).

The NOAA action includes partial funding of facility planning, design, site preparation, construction, and the extension of utilities and services. Following construction, NOAA would occupy a portion of the proposed structures for administrative and educational purposes as a tenant of UCSB and The Regents. NOAA would vacate some or all of its existing CINMS facilities and relocate administrative personnel and property. These proposed actions are described in greater detail below. The proposed construction activity is scheduled to commence in February 2009 and be completed by September 2010.

4.1 Site Preparation

It is expected that construction staging activities would be conducted within the boundaries of the 1.1-acre project site, including the use of a temporary trailer to house the contractor and staff during construction. The initial tasks include demolition activities, foundation excavation, steel erection, and concrete work. Demolition requires removal of the existing cinder block structures, concrete, and asphalt within the project site boundary. Existing ornamental landscaped areas would be cleared and grubbed and the seven Eucalyptus trees would be removed. The existing bike racks and lockers within the project boundary would be removed and stored for reuse at the improved bicycle parking area.

The existing bike path within the project site will be removed and bicycle traffic directed to an alternative bicycle path recently installed at the north side of the Bren Building. That path links to the entire campus bicycle network. A bicycle parking area would be relocated within the project boundary. The existing service road at the site will be closed during construction for relocation on-site. Service vehicles will be directed to Parking Lot #1 north of the Biological Sciences II (Bio-II) building.

Roughly 3.5 feet of topsoil located beneath the existing building foundation would be removed, conditioned, returned to the exposed subgrade, and compacted in place (Fugro 2006 and Fugro 2008). The proposed building foundations will have a 14-inch deep concrete mat with about 26-inch deep perimeter footings (EHDD 2008). Additionally, cast-in-drill-hole piers (drilled piers) will be founded in the underlying Sisquoc Formation to approximately 28 feet deep to support the large kelp tank. Grading and excavation would take approximately four weeks. Erosion control methods include the use of hay bales and filter fabric fences placed around the project site limit. The fences would be cleared of debris after rain events. The project area would be re-landscaped with ornamental landscaping, as described above, when construction is complete.

4.2 Facility Construction

The proposed OSEB would be a 31-foot high, two-story 9,730 ASF (15,284 gsf) facility that is composed of two building wings. The proposed OCTOS building wing will provide for 5,610 ASF to house OceansAlive! and other programs, including specialized joint-use facilities (i.e., Seawater Center, Virtual Theater, and Classroom-Laboratory). The CINMS building wing will provide 4,120 ASF of space to house CINMS headquarters. The main entrance to the facility will be via a shared first floor courtyard on the east side of the facility with building wing entrances facing each other. There will also be a balcony on the second floor that will provide access between the two building wings. The proposed OCTOS and CINMS building wings of the OSEB are further described below.

4.2.1 OCTOS Building Wing

The OCTOS building wing of the will consist primarily of three highly specialized facilities, which will account for more than 80 percent of the available building space. These facilities will include the Seawater Center, Virtual Theater, and Laboratory-Classroom. It will also accommodate a lobby, manager's office, break room, storage, and restrooms. A site plan and a conceptual elevation drawing are shown in Figures 5(a) and 5(b), respectively.

The OceansAlive! program manager will relocate from a temporary trailer office located on campus, which will not be backfilled and will eventually be removed. The only other program personnel are graduate student volunteers that would otherwise already be present on campus and enrolled in university programs. The OCTOS building wing will not result in the addition of new faculty, staff, or UCSB students.

Each of the three specialized facilities described below will accommodate 30-35 program participants, enabling groups of 90 K-12th grade students to rotate through the facility twice a day, four days per week during the typical academic year schedule (Simon 2008).

Figure 1. Regional Setting

OSEB Project
EA/IS/MND

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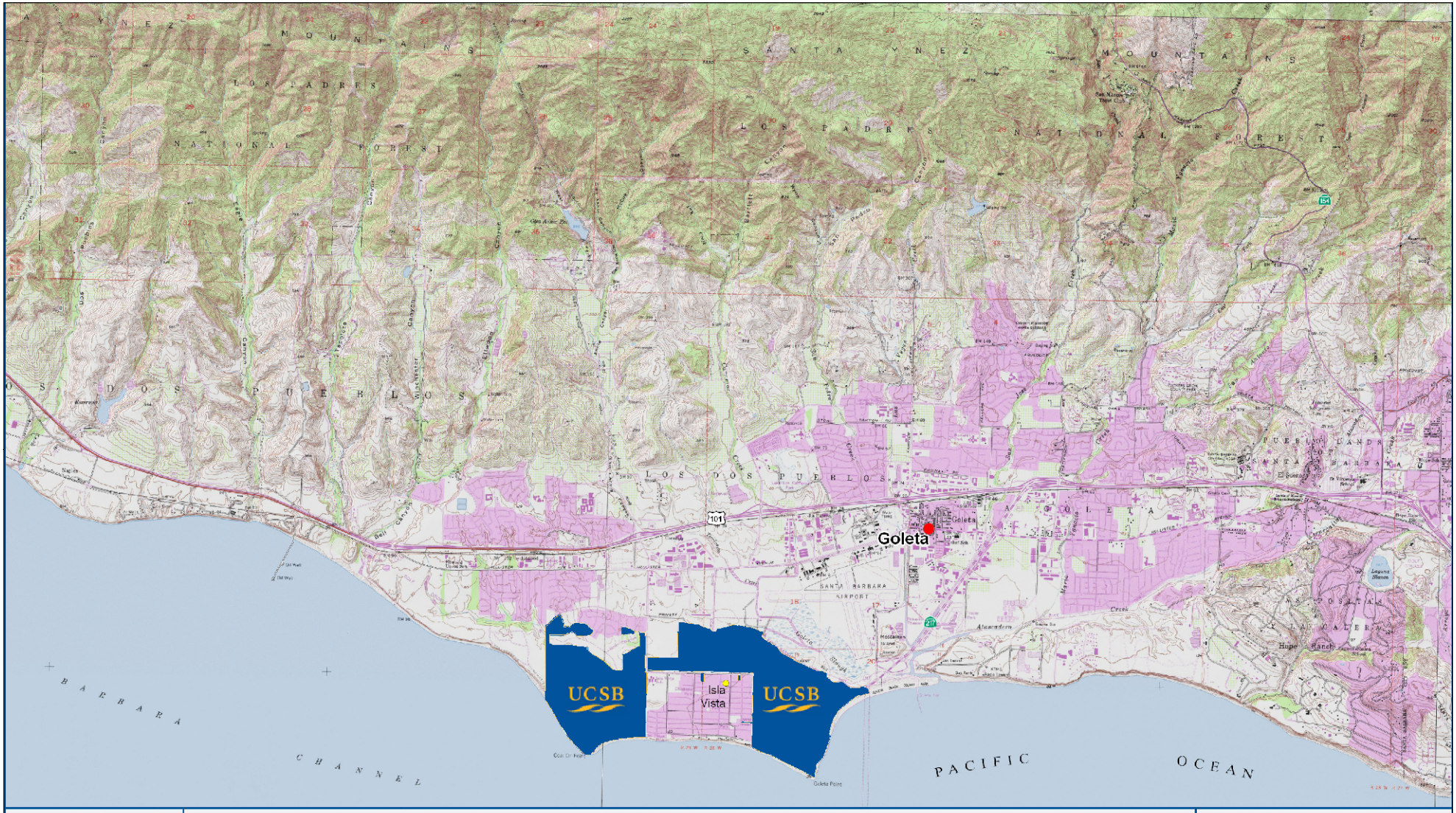

LOCAL VICINITY AND CAMPUSES

UC Santa Barbara Campus Boundary

Scale 1:50,000

0 0.25 0.5 1 Miles

Figure 2(a). Local Setting

Map Source:
Local Setting map provided by the University of California, Santa Barbara (UCSB).

OSEB Project
EA/IS/MND

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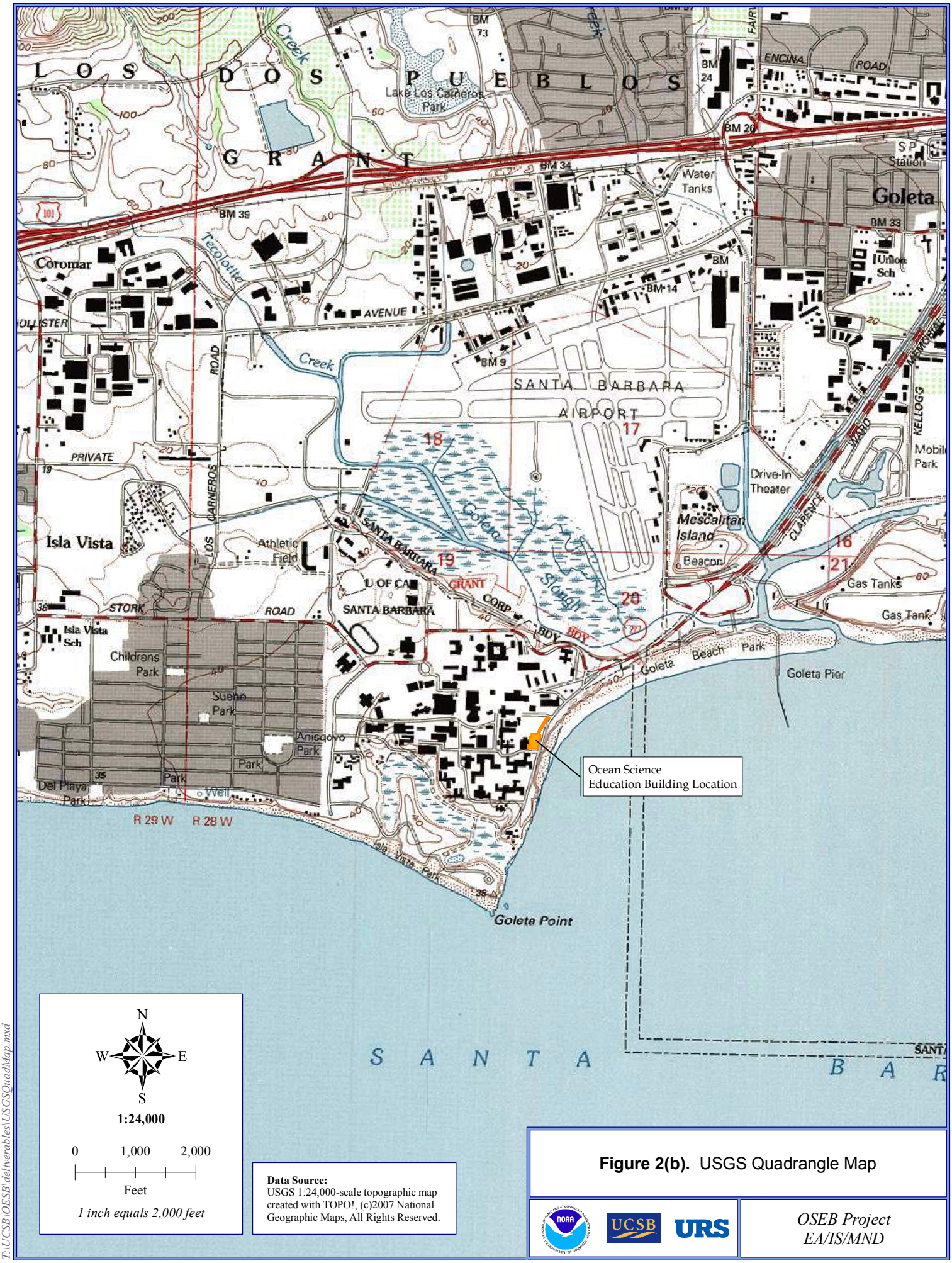
Ocean Science
Education Building Location
N
W
E
S
1:24,000
0
1,000
2,000
Feet
1 inch equals 2,000 feet
Data Source:
USGS 1:24,000-scale topographic map created with TOPO!, (c)2007 National Geographic Maps, All Rights Reserved.
Figure 2(b). USGS Quadrangle Map
UCSB
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OSEB Project
EA/IS/MND
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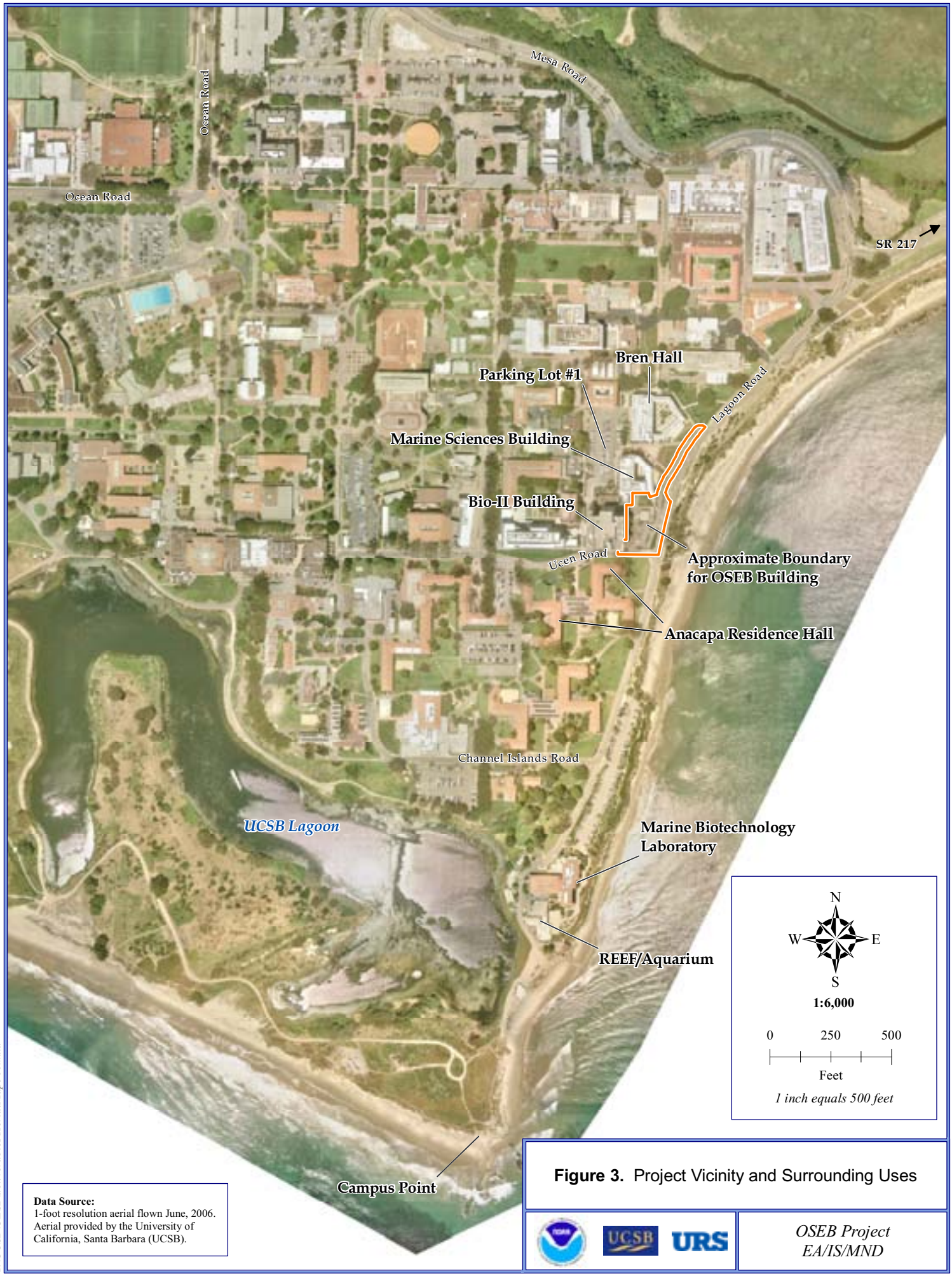

Data Source:
1-foot resolution aerial flown June, 2006. Aerial provided by the University of California, Santa Barbara (UCSB).

Figure 3. Project Vicinity and Surrounding Uses

OSEB Project
EA/IS/MND

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Figure 4. Project Site Boundary

UCSB URS

OSEB Project
EA/IS/MND

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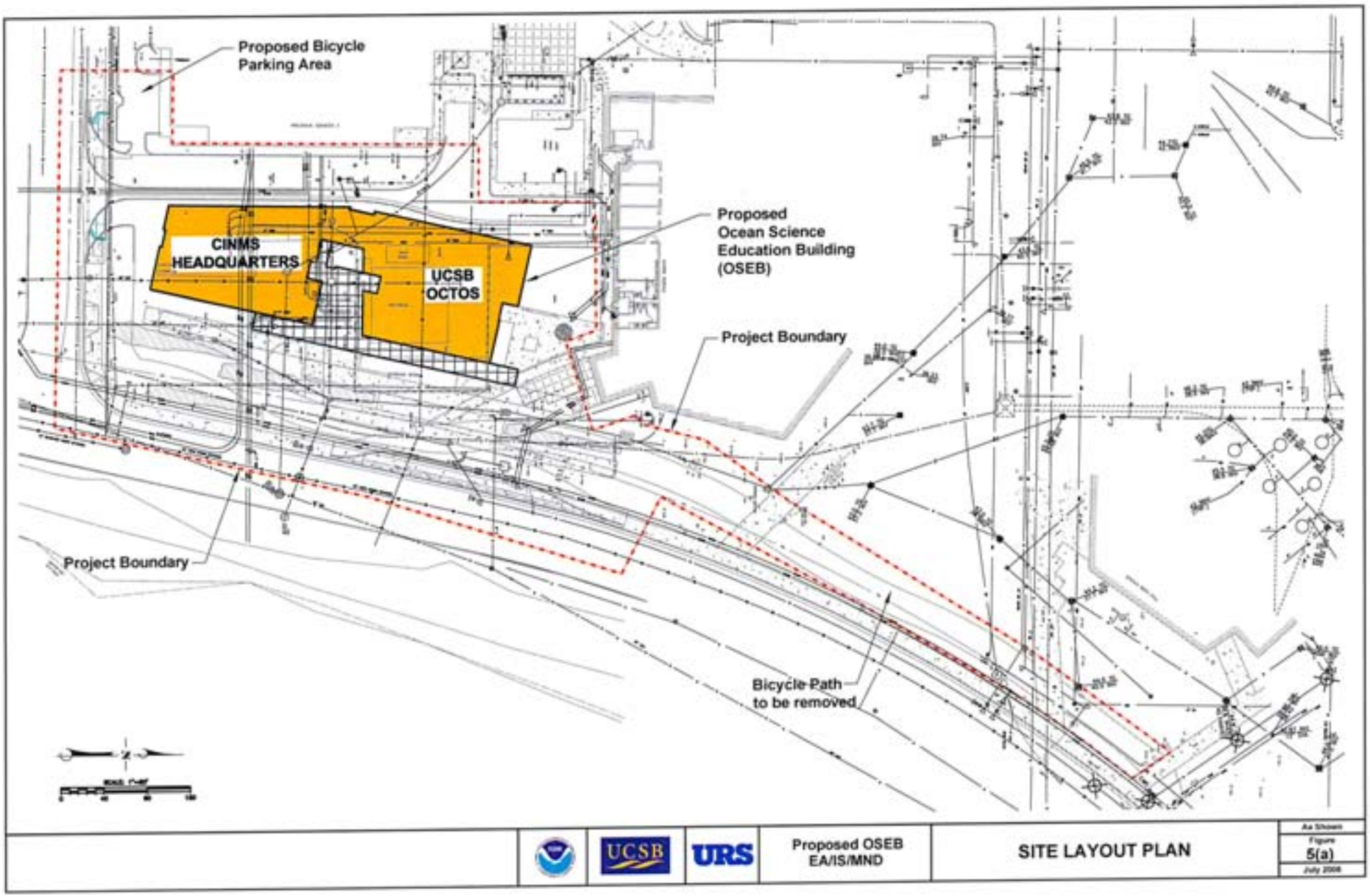
Proposed Bicycle Parking Area
CINMS HEADQUARTERS
UCSB OCTOS
Proposed Ocean Science Education Building (OSEB)
Project Boundary
Project Boundary
Bicycle Path to be removed
UCSB
URS
Proposed OSEB EA/IS/MND
SITE LAYOUT PLAN
As Shown
Figure
5(a)
July 2008

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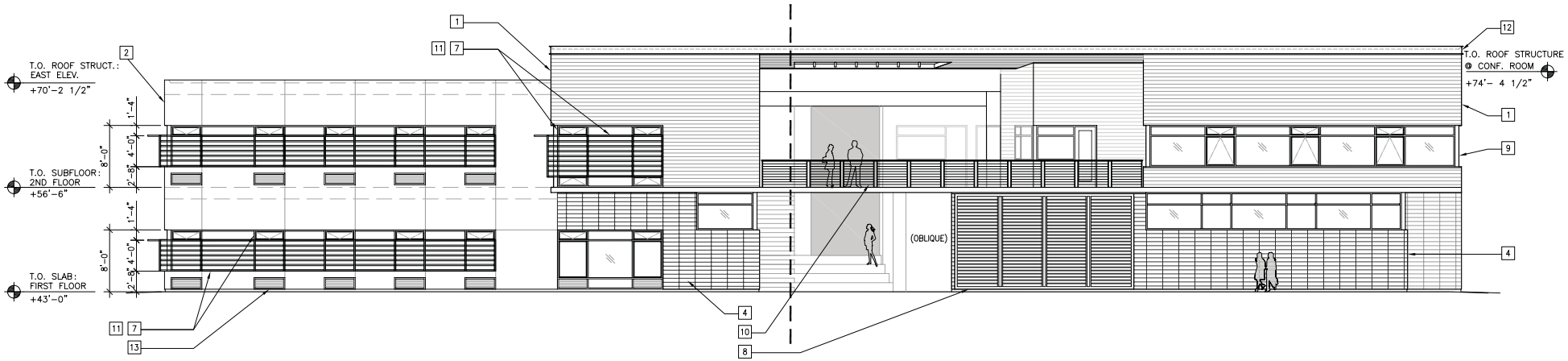

1 A3.01 EAST ELEVATION
1/8"=1'-0"

Data Source:
EHDD
Esherick Homsey Dodge & Davis

Figure 5(b). Site Plan Elevation Drawing

Proposed OSEB EA/IS/MND

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6(a) East Site Boundary (Looking North)

6(b) Northern Portion of Site (Looking Northwest)

6(c) Southern Portion of Site (Looking West)

6(d) Southern Portion of Site (Looking East)

Figure 6. Existing Site Photographs

OSEB Project
EA/IS/MND

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The facility may also be open on the weekends for other groups and/or the general public. This would allow the OCTOS program to serve upwards of 37,000 visitors annually, which would result in a net increase of approximately 22,000 visitors over the 15,000 visitors currently served annually (Simon 2008).

Seawater Center

Encompassing 2,000 ASF of the first floor of the OCTOS wing of the OSEB, the Seawater Center is the largest component of the OSEB facility program. It is comprised of wet and dry exhibits and associated support space. The center has a 70-person occupancy, which is divided equally between the wet and dry exhibits. As envisioned, the wet exhibits consist of large water tanks used to recreate and simulate select marine environments, such as reefs and sub-tidal and inter-tidal habitats, which will support the living plants and animals that are used in the program. The dry exhibits or galleries are programmed to accommodate large models, sculptures, and interactive computer and digital video projections that will stimulate the senses and express the educational messages such as marine ecology, climatology, biology, preservation, and conservation to name a few. As proposed, the Seawater Center utility infrastructure will be flexibly designed to ensure the appropriate response to changes in educational programming and technology can be achieved without substantial redevelopment.

Virtual Theater

The 1,260 ASF, 35-student capacity Virtual Theater is envisioned as a state-of-the-art facility designed to accommodate special format video programming developed to "immerse" viewers into the program subject matter. This facility will accommodate roughly half of the second floor of the OCTOS wing. The theater's technological capabilities will also accommodate live audio-visual telepresence programming via digital cameras from remote locations around the world. The theater is also programmed to accommodate typical educational presentation and instructional formats.

Classroom – Laboratory

The 980 ASF, 35-student capacity Classroom – Laboratory facility is programmed for hands-on education involving a broad curriculum that uses computer and video technology, and fresh and saltwater utilities for instruction and demonstration. The laboratory will accommodate a variety of bench and furniture systems configurations. This facility will accommodate the other half of the second floor of the OCTOS building wing.

4.2.2 CINMS Headquarters Building Wing

The CINMS Headquarters building wing will consist of administrative offices and related space. The building wing will provide for open and private offices, meeting and conference rooms, office administration, library and file areas, storage, a kitchenette, and

restrooms. There will be eventually be a maximum of 26 CINMS and other NOAA occupants in the CINMS Headquarters building wing. All of these occupants will be new to the UCSB campus. They will be relocated from the existing CINMS Headquarters at the Waterfront Center building at the Santa Barbara Harbor and from other leased office space in the city of Santa Barbara. Non-administrative activities will remain at the Santa Barbara Harbor (vessel home porting and operations) and at other locations (e.g., Ventura harbor).

The proposed OSEB project would implement emission reduction strategies through compliance with federal regulations and policies for the greening of facility construction, operations, and maintenance, such as Executive Order (EO) 13423: *Strengthening Federal Environmental, Energy and Transportation Management*. The proposed action will also fulfill UC Policy on Sustainable Practices and guidelines (UCOP 2007). In accordance with this policy, the project will outperform the required provisions of the California Energy Code (Title 24) energy-efficient standards and will achieve a standard equivalent to a Leadership in Energy and Environmental Design (LEED™) "Silver" rating or higher. LEED certification is the recognized standard for measuring building sustainability.[1] The OSEB project is currently planned to achieve a rating of "Gold" or better (Aronson 2008). Other design features incorporated into the project to reduce emissions and other impacts include:

- Short- and long-term bicycle parking to be located on southwestern corner of the site and installed prior to removal of existing bicycle parking facilities;
- Proximity of project to bike paths on the campus;
- Proximity of project to pedestrian network on the campus;
- End of trip facilities (e.g., shower and changing rooms);
- New bus turnout and drop-off area on Lagoon Road fronting the site;
- Minimal parking provided for service and emergency vehicle access only;

[1] The LEED rating system offers four certification levels for new construction (Certified, Silver, Gold and Platinum) that correspond to the number of credits accrued in five green design categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources and indoor environmental quality.

- No on-site or adjacent street parking for building occupants and visitors;
- Increased use of shade trees on the site;
- Signage installed by UCSB to inform bicyclists that access is also provided along the Class III routes along Lagoon Road and UCen Road;
- Use of green building (sustainable or recycled) materials;
- Operable windows and skylights for natural ventilation and lighting where possible;
- Low-energy cooling, including the use of seawater to cool ambient temperatures; and
- Low-water use appliances and landscaping.

4.3 Related Improvements and Services

The OSEB will be served by existing underground utilities and services (i.e., water, sewer, seawater, gas, storm drains, and electrical conduits) on the site, which are considered adequate to serve the project. However, existing utility lines under the building footprint would be either abandoned or relocated within the project site boundary to allow for the placement of the building foundation. No capacity improvements to any of the existing utility or seawater systems would be required to serve the project. Further, the project would not result in an increase in the volume of seawater intake or discharge waters.

Wastewater from the new facility will be from sinks and restrooms. There will be a staff kitchen and six new restrooms, containing seven toilets, one urinal, and one shower, installed in the building. A new 100 MBH (thousand BTUs per hour) condensing boiler will also be installed in the OCTOS building wing to provide in floor radiant heating and hot water.

The existing service road will be moved west approximately 10 feet to allow adequate space for the building footprint, but will maintain its approximate configuration. Service vehicle parking will be relocated to UCSB Parking Lot #1 northwest of the project site. The existing bike path within the site boundary will be removed to avoid conflict with pedestrian access to the proposed facilities. A recently installed bike path located on the north side of the Bren building will serve the campus bike population, providing access to other campus locations currently accessed using the bike path to be removed. The existing bicycle parking area will be replaced with an improved parking area to the southwestern corner of the site, just south of the Bio-II building. It will be installed at the outset of construction activities and provide both short- and long-term bike parking for occupants of existing and proposed structures adjacent to it.

New landscaping will be installed to include primarily mass planting of ornamental grass with small to medium sized trees (e.g., Island Oak, Ironwood, and Catalina Cherry). Small pockets of display planting will also be installed using native plants of the Channel Islands. New planting will be low maintenance and reclaimed water will be used for irrigation.

As discussed in Section 6, the proposed action would require UCSB to complete a LRDP Amendment consisting of inclusion of the project area within the boundary of Potential Building Location Area 25 and depicted in a revision to LRDP Figure 16.

5 ENVIRONMENTAL SETTING

The proposed project is located approximately 10 miles west of downtown Santa Barbara and 35 miles west of Ventura in an unincorporated area of Santa Barbara County (County) (see Figure 1). This general area is locally referred to as the South Coast region of the County, a coastal plain about 3 miles wide between the ocean and the foothills of the Santa Ynez Mountains. The South Coast region is bisected by United States (US) Highway 101, which connects the Los Angeles Basin region to the south with the Santa Maria and San Luis Obispo regions to the north (UCSB 1990a).

The project area is within the 1,055-acre UCSB campus located in a South Coast region known as the Goleta Valley. It lies along a mesa overlooking the Pacific Ocean with views of the Channel Islands to the south and the mountains to the north. UCSB is composed of four land areas: Main Campus, Storke Campus, West Campus, and North Campus. The campuses border the unincorporated community of Isla Vista. The 422-acre Main Campus contains most of the academic and support facilities and is the location of the proposed project site.

The Main Campus and project vicinity is mostly developed although a considerable portion includes small and/or temporary buildings, surface parking lots, and irregularly shaped open space areas (UCSB 2008b). Immediately to the north and east of Main Campus are Goleta Slough and the Santa Barbara Municipal Airport, which lie within the northerly extension of the corporate limits of the city of Santa Barbara (UCSB 2008a). A mix of industrial uses, the Ellwood residential community, and the Ocean Meadows Golf Course are found to the northwest of the campus within the city of Goleta (UCSB 1990a).

The 184-acre Storke Campus contains student housing, playing fields, and natural areas. The 273-acre West Campus is largely devoted to a UCSB natural reserve, including the Devereux Slough, and student/faculty housing (UCSB 1990a). The 174-acre North Campus is undeveloped and consists of areas surrounding the Ocean Meadows Golf Course. It is comprised of approximately 70 acres of permanent open space with housing designated on the remainder of the property. Two housing projects were approved for the North Campus in late 2006. Construction of these projects is scheduled to begin in 2008 (UCSB 2008b).

Figure 3 shows land uses at and near the proposed OSEB project site. The approximately 48,342 square-foot (1.1 acre) project area is located on the eastern edge of the Main Campus, immediately south of the Marine Science Building (MSB), east of the Bio-II building, and west of Lagoon Road and the Pacific Ocean. Other development in the

project area includes: the Bren building to the north of MSB, Parking Lot #1 to the north of Bio-II, and Anacapa Residents Hall to the south across UCen Road.

The project site is currently occupied by a cinder block structure that houses seawater tanks and facilities, a storage shed and outdoor storage facilities, an asphalt-paved service vehicle access and parking lot, motorcycle parking, a bicycle path and bicycle parking area, landscaping, and underground utilities, including water, sewer, seawater, gas, storm drains, and electrical conduits.

The project site ground elevation is approximately 43 feet above mean sea level (msl). It is relatively level and drains to the east towards Lagoon Road and the coastal bluff, which is about 100 feet from the project site (Fugro 2006). A group of three, multi-prong Eucalyptus trees measuring 24- to 26-inches in diameter at the base, and one 10-inch diameter Eucalyptus tree are growing along within the western edge of the site immediately adjacent to the Bio-II building. Three 12- to 14-inch Eucalyptus trees are located on the southwestern corner of the site, just south of the Bio-II building. Additionally, five 10-inch palm trees are located on the northeastern corner of the site, adjacent to Lagoon Road. Other ornamental landscaping is located on-site adjacent to the parking area. A campus bike path passes along the eastern edge of the project site. Bicycle parking, motorcycle parking, and moveable lockers are situated in the central portion of the site, just south of the existing seawater structure. No significant biological resources have been identified on the project site or in the immediate vicinity.

Road provides access to the project site from Lagoon Road and from campus locations west of the project site. An at-grade ocean bluff-top trail is located east of the project site across Lagoon Road. This trail provides pedestrian access parallel to Lagoon Road along the western perimeter of Main Campus, including the existing Oceans Alive! Research Experience & Education Facility (REEF), the Campus Point beach, and the campus Lagoon located southwest of the project site.

6 AFFECTED ENVIRONMENTAL AND ENVIRONMENTAL CONSEQUENCES

6.1 Land Use and Coastal Zone Management

6.1.1 Affected Environment

The proposed project site is on land owned and managed by the state of California and is not subject to local zoning regulation. UCSB has designated the area containing the proposed site as Academic Uses, as shown in the Land Use and Circulation map that is contained in the UCSB 1990 LRDP (UCSB 1990a). The portion of the proposed project site where the building would be constructed currently contains a cinder block structure, storage facilities, service road and parking, a bicycle parking lot and path, and ornamental vegetation and trees. Surrounding land uses include: the MSB to the north, the Bio-II building to the west, and the Anacapa Residents Hall to the south across road. Lagoon Road is immediately adjacent the project site to the east. Other development in the project area includes: the Bren building to the north of MSB and Parking Lot #1 to the north of Bio-II.

The 1990 LRDP also serves as a certified Local Coastal Plan (LCP) in accordance with the California Coastal Act. As the applicable LCP for the proposed project, subsequently proposed developments at UCSB must be found consistent with the policies and requirements of the 1990 LRDP. Each of the LCP enforceable polices in the 1990 LRDP are evaluated for this proposed action throughout this section of the EA.

6.1.2 Environmental Consequences—Proposed Action

Since the proposed project would take place within the Campus, no local land use plans or policies apply. The proposed project would not divide, isolate, or be inconsistent with any existing land uses on the UCSB campus.

In regard to land use policies, LRDP Policy 30250(a).1 states that no more than 830,000 square feet of building footprint site area will be developed on the Main Campus for buildings other than potential parking garages and student housing. Major development has occurred since the adoption of the 1990 LRDP. Approximately 590,482 square feet of building footprint site area has been developed since the adoption of the 1990 LRDP. Another 111,541 square feet of building footprint site area is under construction, awaiting construction, or is in the planning stages. The OSEB project was not specifically included in the 1990 LRDP as a potential building location. However, the proposed seawater center, technology theater, and wet class laboratory that were originally planned and approved as part of the MSB, were not constructed due to funding constraints. The MSB and adjacent Bren building are located on potential building location 25 on the 1990 LRDP Figure 16.

Adequate site area remains on LRDP potential building location 25 to accommodate the proposed OSEB GSF and ASF goals and well within the projected LRDP limit for UCSB growth. An originally planned OCTOS space was not built as part of the MSB, therefore the OSEB is considered part of the 830,000 square feet LRDP building area. The proposed action is consistent with Policy 30250(a).1; however, Figure 16 would be modified so that the boundary of potential building location 25 encompasses the proposed OSEB project site. In addition, the total square feet of building footprint area developed, under construction, or proposed to be developed and waiting final approval since 1990 is 702,023 square feet (see Table 1). Therefore, the square feet allocation approved in the LCP and identified in 1990 LRDP Policy 30250(a).1 will not be exceeded.

Table 1
Square Feet of Building Site Area Developed Since the 1990 LRDP Adoption

Building	Square Feet (Building Footprint)
Student Affairs and Administrative Services*	22,500
Physical Sciences*	37,601
Environmental Sciences*	26,256
Institute of Theoretical Physics*	14,691
Environmental Health and Safety*	14,733
Recreation Center and Aquatics Complex*	55,739
University Center Expansion*	58,493
Humanities and Social Services*	64,000
Material Research Laboratory*	12,270
Engineering Science Building*	47,500
Kohn Hall Addition*	4,634
Marine Sciences Building*	15,402
Life Sciences Building*	23,905
Intercollegiate Athletics Building*	28,460
Harder Stadium Offices*	12,965
California Nanosystems Institute*	43,061
Recreation Center Expansion*	51,100
Psychology Building Expansion*	7,240
Arbor Expansion*	4,182
Snidecor Hall Replacement Facility*	7,500
Student Resources Building*	28,000
Residential Life Resource Building**	5,128
Education and Social Sciences Building**	80,000

Table 1 (concluded)
Square Feet of Building Site Area Developed Since the 1990 LRDP Adoption

Building	Square Feet (Building Footprint)
Alumni House*	10,250
Isla Vista Foot Patrol**	5,188
Engineering II Addition**	7,225
Library Addition**	14,000
Total	702,023

* Construction Complete
** Undergoing construction or awaiting approval and/or construction

The proposed project is also consistent with the 2008 Draft LRDP, including Figure D.3, Proposed Building Sites, which is pending final revisions and approval by The Regents and the California Coastal Commission.

The responsibilities of federal agencies in complying with non-federal zoning regulations are set forth in the *Public Buildings Amendments of 1988*, Public Law 100–678. That law requires federal agencies to consider local zoning and development requirements, provide local officials with plans to review for up to 30 days, and permit normal inspections by building officials during construction. The local government cannot bring any actions or fines against the federal agency for non-compliance. NOAA would adhere to the provisions of the *Public Building Amendments of 1988*, Public Law 100–678.

No significant adverse effects to existing or planned land uses would occur due to implementation of the proposed action.

6.1.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, the proposed action would not be implemented; no new CINMS administrative offices or educational facilities would be established. The proposed project site would then be available to UCSB for other uses within their sole discretion. No significant land use impacts would result under the no-action alternative.

6.1.4 Mitigation Measures

No mitigation measures would be required. UCSB intends to amend its existing 1990 LRDP so that the proposed project area is identified as a portion of potential building location 25, and will depict this change in Figure 16 of that document. The 1990 LRDP Amendment described above and a Notice of Impending Development will be submitted to the California Coastal Commission for review and approval upon adoption of this environmental document by The Regents.

6.2 Geological and Agricultural Resources

6.2.1 Affected Environment

The Main Campus is located on a marine terrace that is approximately 40 feet above mean sea level (MSL). Stream erosion over the past 10,000 years has eroded the terrace to form a series of valleys, which have accumulated deposits of gravel, sand, silt, and clay. Deposits of older and recent alluvium, which reach a thickness of about 25 feet, typically overlie bedrock material. The underlying bedrock formations on the Main Campus include the Monterey, Sisquoc, and Santa Barbara Formations (UCSB 1990a).

Mapped faults identified on the UCSB campus include the More Ranch fault zone and the Campus fault, with the Coal Oil Point fault and the Goleta Point fault located just off shore of the campus to the south and east. A number of other faults exist in the region, including but not limited to: the San Cayetano, Santa Ynez, San Andreas, Mesa-Rincon Creek, Hosgri, and Red Mountain faults (UCSB 2008b).

The More Ranch fault zone is not classified as active by the State; however, the Santa Barbara County General Plan Seismic Safety Element classifies the north branch of the More Ranch fault as active (County of Santa Barbara 1979). The south branch of the fault is not listed in the Seismic Safety Element, but would likely be classified as potentially active based on displacement of terrace deposits west of the project site. The More Ranch fault zone extends across all three campuses in an east-west orientation.

The potentially active Campus fault was mapped in 1982 and subsequent work by most investigators has acknowledged that the Campus fault and the previously mapped Briggs Lineation is the same feature. The location of the Briggs Lineation/Campus fault is generally well documented. The location of the Briggs Lineation/Campus fault mapped in 1997 is reasonably consistent with other investigations, including a distinct ending of the feature about 500 to 1,000 feet east of the Humanities and Social Sciences Building. The fault extends across the Main Campus in a northeast to southwest direction (UCSB 2008b).

Liquefaction is the loss of soil strength caused by earthquake-generated ground shaking. Liquefaction typically occurs in loose, saturated granular soil. Liquefaction is generally not considered to be a significant concern if on-site soils have a high clay content, consist of dense granular soils, or if groundwater is not present within the upper 40 to 50 feet. The degree of liquefaction susceptibility at a specific location will be dependent upon a variety of factors, including soil type, texture, and degree of soil saturation. In areas of the campus where on-site soils are limited, and there are discontinuities in water-saturated sand and silt zones, the potential for significant effects from liquefaction is reduced. The LRDP EIR (UCSB 1990a) concluded that liquefaction has the potential to occur at locations throughout the UCSB campus.

Sea cliff retreat occurs as a result of marine and non-marine processes on the bluffs surrounding UC Santa Barbara. Marine-induced erosion on bluff faces is generally caused from wave action near the bottom of the bluff, which in turn destabilizes strata at the higher portions of the bluff face. Salt spray from wave-action causes weathering to occur on the bluff face as well, which also leads to erosion. The ability of a sea cliff to resist marine-induced erosion depends on the distance between the bluff and the wave zone, and the physical properties and strength of the strata which make up the bluff face, which in this case considered highly erodible. Bluff terrace deposits on the Main Campus erode at approximately 2 to 6 inches per year, base on a 1999 study done by Fugro West Inc. (UCSB 2008b).

The LRDP (UCSB 1990a) has several specific policies for slope control, slope surface stabilization, and sediment control. LRDP Policy 30231.1 requires that a site-specific erosion control and landscape plan be prepared for all new construction. LRDP Policy 30231.1(l) and (m), respectively, require slopes to be no steeper that 2:1 and that slopes be constructed as not to endanger adjoining properties. LRDP Policy 30231.1(j) requires temporary mulching, or other suitable soil stabilization measures to protect exposed areas during construction. In accordance with LRDP Policy 30233(a)(1) fill shall not encroach wetlands or contiguous wetlands, or any other natural watercourses or constructed channels on Campus. LRDP Policy 30231.1(n) requires that sediment must be retained on-site using sediment basins, sediment traps, or similar sediment control measures. These sediment control measures must be installed prior to clearing and grading operations.

The following information regarding the geological setting of the project site is based largely on a geotechnical report and update report conducted for the proposed project by Fugro West, Inc. (Fugro 2006 and Fugro 2008). The proposed project site has an elevation of approximately 42 to 43 feet above MSL with level topography. The proposed project site is approximately 1,500 feet southeast of the Campus fault and approximately 2,000 feet south of the More Ranch fault. Surface soils at the project site consist of artificial fill and granular terrace deposits of the Baywood sandy loam series, which overlay Sisquoc Formation Bedrock. The artificial fill consists of pavement materials and silty sand and is estimated to be about 5 feet thick. The Baywood terrace deposits were encountered below the fill to a depth of between 12 and 13 feet below the ground surface. The Baywood soils have a very low shrink-swell potential, slight erosion hazard, and are not prime agricultural soils (UCSB 2008b).

Based on other investigations at UCSB, groundwater generally exists in the terrace deposits as a result of groundwater perched on the underlying Sisquoc Formation. Groundwater was not encountered during the geotechnical drilling for this project. However, very moist soils and soils with high in-situ moisture were noted at depth of about 8 to 10 feet below the ground surface. Depth to groundwater at adjacent buildings (i.e., MSB and Bren) has ranged

from about 5 to 10 feet below the ground surface. Based on the current groundwater conditions, the terrace deposit materials below a depth of about 9 to 10 feet and above the bedrock surface are considered susceptible to liquefaction (Fugro 2008).

There are no agricultural resources on the Main Campus or in off-campus areas that are located in the vicinity of the proposed project site. No Farmland Protection Policy Act resources, including prime or unique farmland, farmland of statewide importance, or Williamson Act contract, are present on or within the project's area of potential effect. The Campus, as part of the University of California, is not subject to local zoning regulation.

There are no substantial mineral resources or existing mineral resource recovery operations located on or near the UCSB campus.

6.2.2 Environmental Consequences—Proposed Action

The proposed project site is located approximately 2,000 feet south of the More Ranch fault and approximately 1,500 feet southeast of the potentially less significant Campus fault. It was determined in the geotechnical engineering report that the potential for ground surface rupture at the project site is low (Fugro 2006). It is likely that the proposed project site would experience strong earthquake-related ground shaking sometime during the life of the structure. Potentially significant ground shaking may result from movement along a local fault or a major earthquake along a more distant fault. The geotechnical engineering firm that analyzed this proposed site for the proposed project determined that the potential for ground surface rupture is low (Fugro 2006). Recommendations for foundation support to minimize potential ground shaking-related impacts, as described in the geotechnical engineering report, should be followed to ensure a less than significant impact would result. No other mitigation measures are required.

In accordance with the geotechnical engineering report the potential for liquefaction at the site could be mitigated by over-excavating and re-compacting the soil or by supporting the proposed structures on deep foundations bearing in the Sisquoc Formation bedrock since the bedrock is not prone to liquefaction (Fugro 2006). Building construction would also comply with Title 24 of the California Code of Regulations and the most recent edition of the Uniform Building Code.

The proposed project site topography is level, and there are no slopes located adjacent to the proposed project site that would have the potential to result in significant slope stability impacts. Any slopes would be 2:1 unless the geotechnical investigation recommends otherwise in accordance with LRDP Policy 30231.1(l). The construction site is very limited in area (approximately 1.1 acre), and grading and excavation would occur for approximately four weeks. Erosion may occur locally during site grading, excavation, and other ground disturbing construction activities. Soils would continue to be exposed during the preparation

of the building foundation and trenching for utility installation. Drainage from the project site is ultimately directed to a set of existing storm drain pipes that outfall onto the coastal bluff and shoreline approximately 100 feet east of the site. For this reason, any increase in erosion and sedimentation off-site due to the proposed project activities could impact local, near-shore ocean water quality.

In accordance with LRDP Policy 30231.1(c) a site specific erosion control and landscape plan would be prepared for the proposed project (UCSB 1990a). In addition, best management practices as required by LRDP Policy 30331.1(n) and (b) such as installing sediment basins and traps around the proposed project site would be implemented prior to clearing and grading to prevent sediment transport. Other relevant LRDP policies related to sediment control will also be implemented. Upon completion of construction the proposed project site would be landscaped with ornamental vegetation. Also, in accordance with recommendations in the geotechnical study, proper drainage around the new structure and improvements would be established and maintained (Fugro 2006).

LRDP policy 30253.7 indicates that new development shall be constructed at a sufficient distance to maintain the proposed structure for a minimum of 100 years without the construction of shoreline protective devices. Assuming an erosion rate of up to 6 inches per year (UCSB 2008b), the proposed project would need to be setback 50 feet from the coastal bluff slope to provide 100 years of protection. The proposed project site is located approximately 100 feet away from a coastal bluff (Fugro 2006).

The Farmland Protection Policy Act sets forth federal policies to prevent the unnecessary conversion of agricultural land to non-agricultural use. Regulations at 7 CFR 658.2(a) exclude land from definition as farmland those lands already in urban use or committed to urban development or water storage. The proposed site is within an urbanized area and is not classified as prime farmland or farmland of statewide importance. There are no agricultural operations or infrastructure located on or near the project site, and it is not reasonably foreseeable that agricultural operations would be established in the future. No prime or unique farmland, farmland of statewide importance, or Williamson Act contract exists on the project site.

No commercial rock mineral products or protected farmland resources would be affected by the proposed action. Soils on-site are associated with the Baywood series and are generally not considered to be highly expansive. Recommendations in the geotechnical engineering study would be followed (Fugro 2006). The proposed project would not utilize a septic tank and will be connected to the campus sewer system.

No significant impact to mineral or geological resources would occur due to the proposed action.

6.2.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, there would be no change in existing conditions at the preferred project location. Existing use of the property would continue, or it may be developed without NOAA administrative or education outreach facilities. No adverse environmental consequences to mineral or geological resources would result from the no-action alternative.

6.2.4 Mitigation Measures

The following mitigation measures have been identified for the proposed action that would reduce impacts from erosion and sediment transport into the storm water system, shoreline and intertidal areas, and the ocean. The following grading and erosion control practices shall be included the project's erosion control plan to mitigate soil erosion and sedimentation impacts during construction.

a. If grading occurs during the rainy season (November through March), sediment traps, barriers, covers, or other methods shall be used to reduce erosion and sedimentation.
b. A site-specific erosion control and landscape plan shall be prepared for all new construction.
c. Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm water runoff.
d. Grading operations shall be conducted so as to prevent damaging effects of sediment production and dust on-site and on adjoining properties.
e. Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area shall be fenced to define project boundaries.
f. Temporary mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities.
g. Sediment traps, silt fences, straw bales, or other similar sediment control measures shall be installed before clearing and grading operations begin.

The assigned project manger at the UCSB Design and Construction Services Department shall ensure the erosion control measures, including all best management practices, are included in project plans, contract documents, and the erosion control plan prior to construction. The project manager shall ensure best management practices are implemented during the entire construction period.

6.3 Hydrological and Surface Water Resources

6.3.1 Existing Environment

Campus drainage is directed towards the Goleta Slough, Campus Lagoon, and the Pacific Ocean. Drainage from the proposed project site drains into the Pacific Ocean via an existing ocean outfall located just east of the site in the coastal bluff slope. Existing storm drains and pipes are located on the site and connect to the existing ocean outfall.

In accordance with LRDP Policy 30231.1(b) and (n) and 30231.2 (UCSB 1990b) for all campus development sediment shall be retained on-site, sediment basins, sediment traps, or similar sediment control measures shall be installed before extensive clearing or grading, and in general, projects shall be designed to minimize soil erosion and, when possible to direct surface runoff away from coastal waters and wetlands.

6.3.2 Environmental Consequences—Proposed Action

Proposed construction activities would include demolition of existing structures and improvements, grading and excavation, erection of new structures, and finishing and coating activities. If not properly managed, these construction activities would have the potential to temporarily degrade surface water quality due to discharges of sediment and other construction-related materials. The discharge of sediments or other pollutants from the project site during construction could result in temporary water quality impacts to near-shore ocean waters, as project site runoff is discharged to the ocean at an existing outfall located to the east of the site.

The area on the project site that would be excavated and/or subject to grading is slightly greater than one acre. Because the project is greater than 1 acre in size it would need to apply for a National Pollutant Discharge Elimination System (NPDES) Phase II Statewide General Construction Permit.

The proposed project would implement best management practices for sediment control and would not have an impact on the water quality of near shore ocean waters. These best management practices (sediment traps, barriers, covers, or other methods) are consistent with LRDP policy 30231.1(b) and (n), specifically to retain sediment on-site during site preparation and grading. LRDP Policy 30231.1(j) requires projects under construction to apply temporary mulching, seeding, or another stabilization method on exposed areas during construction. In accordance with LRDP policy 30231.1(c) a site specific erosion control and landscape plan would be prepared for the project. In accordance with policy 30231.1(e) excavated materials would not be deposited or stored where the material can be washed away by storm water runoff. Other relevant LRDP policies for the control of sediment will also be implemented. These policies would substantially reduce the potential for off-site erosion and sedimentation to occur.

Wastewater that would be generated by the proposed project would consist only of domestic releases directed into the campus sewer system. Wastewater generated by the proposed project would be from restrooms, sinks, and drinking fountains. Wastewater from the UCSB campus is sent to the Goleta Sanitary District (GSD) for treatment and disposal. The treatment plant has a design capacity of 9.7 million gallons per day (MGD), but the NPDES permit for the plant's ocean outfall sets a plant capacity limit of 7.64 MGD. On average, the daily flow into the treatment plant is 5.78 MGD (UCSB 2008b). Therefore, the District's

treatment plant has existing remaining capacity to serve the project. Further, activities that would be conducted at the project site would occur indoors, which would limit the potential for the release of any substances that could adversely affect water quality.

The campus water supply is not generated through groundwater therefore the proposed project would not contribute to a depletion of groundwater supplies. Additionally, the primary regional groundwater source is the Goleta Groundwater Basin, which is located north of the More Ranch fault and the UCSB campus. Groundwater at the UCSB campus occurs primarily as perched water aquifers and is not a potable source (UCSB 2008b). Therefore, project construction and associated impervious surfacing would not interfere with groundwater recharge of a potable source. The project also would not interfere with recharge of the perched water aquifers on campus, as it would not result in a substantial increase in impervious surfacing on the site.

The proposed project would not result in the alteration of existing drainage patterns or exceed the capacity of the existing drainage system. The project site is developed and is surrounded by development on three sides. Development of the proposed project would convert approximately 8,000 square feet of area within the 1.1 acre site from an under-developed site with asphalt and concrete pavement, and cinder block structures to a new two-story building. The proposed project site has ornamental landscaping around the perimeter of the service road and bike parking area, and north of the seawater cinder block structure. Landscaping consists of Eucalyptus trees of varying heights, palm trees, shrubs, and a grassy area. The project-related increase in impervious surface area would result in a very slight increase in storm water runoff and would not alter existing drainage patterns. There would be some relocation of existing storm water pipes under the site to allow for the building foundation. However, the project would connect to the existing storm drains on or immediately adjacent to the site. No expansion of storm water facilities would be required to serve the project. Therefore, the project would not result in substantial erosion, siltation, or flooding as a result of the alteration of existing drainage patterns, nor would it exceed that capacity of the existing drainage system.

The proposed project site is not located within the boundary of the 100-year floodplain (FEMA 1985) or within a flood hazard area (UCSB 2008b). The only tsunami to strike the Santa Barbara area occurred in 1812 as a result of an offshore earthquake (UCSB 1990b). The project site has not been identified as within an area that could be inundated by a tsunami (UCSB 2008b). Given the relative infrequency of seiches and tsunamis at UCSB and the project site location, there is little potential of impacts from these natural occurrences. Therefore, the project would not expose humans or structures to a significant risk of loss, injury, or death related to flooding events. The proposed action would comply with floodplain management policies as defined in E.O. 11988, Floodplain Management (President 1977a).

The proposed project would not result in significant long-term runoff water quality impacts or substantially contribute to cumulative runoff water quality impacts. The proposed project would not exceed applicable water quality standards or degrade surface water quality or floodplain values. No significant impact to these resources would result from implementation of the proposed action.

6.3.3 Environmental Consequences—No-Action Alternative

Under the no-action alternative, there would be no change in existing hydrological conditions or surface water discharge from the preferred project location. Use of the property would continue, or it may be developed without NOAA administrative or education outreach facilities. No adverse environmental consequences to hydrological or water quality conditions would result from the no-action alternative.

6.3.4 Mitigation Measures

During the construction period, the OSEB project has the potential to result in erosion and sedimentation impacts. Mitigation measures discussed in Section 6.2.4: Geological and Agricultural Resources would reduce short-term water quality impacts to a less-than-significant level. Because the project is greater than 1 acre in size it would need to apply for a National Pollutant Discharge Elimination System (NPDES) Phase II Statewide General Construction Permit.

6.4 Air Quality

6.4.1 Existing Environment

Air quality is analyzed and regulated by federal, state, and regional agencies under the Clean Air Act (CAA) of 1970 and the Clean Air Act Amendments (CAAA) of 1977 and 1990. Under the CAA, the federal EPA promulgated primary and secondary National Ambient Air Quality Standards (NAAQS) for six "criteria" pollutants: particulate matter, nitrogen oxides (NO_X), sulfur dioxide, lead, ozone (O_3), and carbon monoxide (CO). Following this legislation, the CAAA of 1990 identified certain areas of the country as being in nonattainment of the NAAQS. Individual states are then required to submit, for federal approval, a State Implementation Plan (SIP). The SIP specifies actions designed to bring nonattainment areas into conformity with federal air quality standards.

The South Central Coast Air Basin is in attainment for the federal air quality standards for most criteria pollutants (i.e., ozone, carbon monoxide [CO], nitrogen dioxide [NO_2], sulfur dioxide [SO_2], particulate matter less than 10 microns in diameter [PM_{10}], lead, sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles) (County of Santa Barbara 2007). However, there is not yet enough data to determine the attainment status for the federal standard for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), although it's

likely that the County will be in attainment for the federal $PM_{2.5}$ standard (County of Santa Barbara 2008). It should be noted that the U.S. Environmental Protection Agency (USEPA) replaced the federal one-hour ozone standard with an eight-hour standard on June 15 of 2005, as it is more protective of public health and more stringent than the federal one-hour standard (County of Santa Barbara 2007). The County is in attainment with the new eight-hour ozone standard.

On April 17, 2006, the California Air Resources Board also established a new eight-hour ozone standard in addition to the one-hour standard, as it is more protective of children's health (County of Santa Barbara 2007). The County has not achieved compliance with the new state eight-hour ozone standard or the standard for particulate matter less than ten microns in diameter (PM_{10}), but recent data shows that the County has attained the state one-hour ozone standard (County of Santa Barbara 2007). Additionally, as for the federal standard there is not yet enough data to determine the attainment status for the state $PM_{2.5}$ standard (County of Santa Barbara 2008a).

Major sources of PM_{10} emission in the County include quarries, grading, demolition, agricultural tilling, road dust, and vehicle exhaust. Ozone is formed as a result of a chemical reaction between reactive organic compounds (ROC) and oxides of nitrogen (NO_X). In Santa Barbara County, the largest contributor of ROC emissions is from natural sources (e.g., natural vegetation, naturally occurring oil seeps) and on-road motor vehicles. The largest contributor of NO_X is on-road motor vehicles and other mobile sources, such as trains and off-road equipment (County of Santa Barbara 2007).

The Clean Air Plan (CAP) for Santa Barbara County has been prepared and is updated every three years by the Santa Barbara County Air Pollution Control District (APCD), as required by the California Clean Air Act. The CAP, which was prepared in 1994 in response to the requirements of the California Clean Air Act and the Federal Clean Air Act, has been adopted as part of the State Implementation Plan. The 2007 CAP is currently the most recent Clean Air Plan for the County adopted by the Air Pollution Control Board. The 2007 CAP provides a three-year update to the APCD's prior 2004 CAP. The 2007 CAP is similar to the 2004 CAP with the addition of updated local air quality information, updated baseline emission inventory, and updated future year emission estimates through 2020. The 2007 Plan also provides a maintenance plan for the new federal 8-hour ozone standard and provides for expeditious attainment of the state 1-hour ozone standard (County of Santa Barbara 2007).

There is growing concern about greenhouse gas (GHG) emissions and recognition of their significant adverse impacts on the world's climate and on our environment. In California, the passage of the Global Warming Solutions Act of 2006 (AB 32) recognizes the serious threat to the "economic wellbeing, public health, natural resources, and the environment of California" resulting from global warming. AB 32 mandates significant reductions in GHG

emissions; passage of that law has highlighted the need to consider the impacts of GHG emissions from projects that fall under the jurisdiction of the CEQA (CAPCOA 2008).

Based on criteria that have been adopted by the APCD Board and presented in *Scope and Content of Air Quality Sections in Environmental Documents, Updated June, 2008* (County of Santa Barbara 2008b), a proposed project will not have a significant air quality effect on the environment, if the *operations* of the project will:

- Emit (from all project sources, both stationary and mobile) less than 240 pounds per day of ROC and NO_X, and 80 pounds per day for PM_{10}. There is no daily operational threshold for CO, which is an attainment pollutant; or
- Emit less than 25 pounds per day of NO_X or ROC from motor vehicle trips only; or
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); or

Not exceed the Santa Barbara County APCD health risk public notification thresholds adopted by the Santa Barbara County APCD Board as outlined in Section 4.3.5 of *Scope and Content of Air Quality Sections in Environmental Documents, Updated June, 2008*; or

- Be consistent with latest adopted federal and state air quality plans for Santa Barbara County.

If project emissions from traffic sources for NO_X or ROC exceed the long-term thresholds above, the project is also considered to have a significant cumulative air quality impact (County of Santa Barbara 2008b).

Quantitative thresholds of significance are not currently in place for short-term construction equipment emission of air pollutants; however, the Santa Barbara County APCD uses 25 tons per year for ROC or NO_X as a guideline for determining the significance of construction impacts. No quantitative threshold has been established by the SBCAPCD for short-term, construction related PM_{10}. However, the Santa Barbara County APCD recommends that construction-related NO_X, ROC, PM_{10}, and $PM_{2.5}$ emissions from diesel and gasoline powered equipment, paving and other activities, be quantified (County of Santa Barbara 2008b).

The only stationary source that would result from the proposed project is a new boiler. If a boiler has a rated heat input from 75,000 British thermal units (Btu) per hour (hr) to 2 million Btu (MMBtu)/hr it is subject to Rule 360 emissions standards. If a boiler has a rated heat input from 2 MMBtu/hr to 5 MMBtu/hr it is subject to Rule 361 emissions standards. Likewise, boilers rated at 5 MMBtu/hr or greater are subject to Rule 342 emissions standards. Boilers in the above categories require permits from the Santa Barbara County APCD. If multiple boilers are used for a combined function and the aggregate heat input is greater than 2 MMBtu/hr, a permit is also required (Jammalamadaka 2008). An example of a combined

function would be if multiple boilers were connected to the same steam header or hot water header.

The Santa Barbara County APCD indicates that global climate change is a cumulative impact and that a project contributes to this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases. There are currently no published thresholds for measuring the significance of a project's cumulative contribution to global climate change (County of Santa Barbara 2008b).

Construction of the OSEB facilities would take place over approximately one and a half years. Grading and excavation would occur for approximately four weeks. Standard construction equipment and vehicles would be used. Since the project site is relatively flat, there would be minimal grading on the site and therefore very minimal dust emissions due to grading or cut and fill practices. The project area would be landscaped after construction. The building would result in the addition of one new 100,000 Btu/hr boiler. However, no new emergency generators would be installed with the project.

Laboratory classroom space in the building will include the use of tabletop computers, optics, lasers, scopes, and sundry electronic apparatus. No hazardous chemicals would be used that would require the installation of fume hoods. There would be one UCSB staff and 26 CINMS and other NOAA staff permanently occupying the new building. The UCSB staff would come from an existing location on campus and the 26 CINMS and NOAA staff would be new to the UCSB campus, but would relocated from the Santa Barbara Harbor and elsewhere in the area. Educational programs housed in the OCTOS building wing would allow the Oceans Alive! and REEF programs to serve upwards of 37,000 visitors annually, which would result in a net increase of approximately 22,000 visitors over the 15,000 visitors currently served annually. These visitors would arrive and depart the campus primarily by bus.

6.4.2 Environmental Consequences—Proposed Action

Consistency with the CAP means that the stationary source and motor vehicle emissions associated with the project are accounted for in the CAP's emission growth assumptions. The emission estimates that are contained in the CAP for projects located on the UCSB campus are based on growth projections contained in the 1990 LRDP. Any amendment to the 1990 LRDP that would result in UCSB population growth above that forecasted by the 1990 LRDP, would be inconsistent with the CAP.

The 1990 LRDP was based on increasing enrollment to 20,000 students, and employment to 1,174 FTE faculty and 3,299 FTE staff. As of the 2007-08 academic year, campus enrollment reached 21,400 students, and an employment of 2,406 FTE faculty and 3,675 FTE staff. The

campus has therefore reached the 1990 LRDP enrollment projections, and has exceeded faculty and staff projections (UCSB 2008b).

The CINMS and other NOAA staff would come from elsewhere in the region and would not constitute new population growth that has not already been accounted for elsewhere in the CAP growth assumptions. Further, emissions from the proposed project would not exceed the long-term thresholds identified above. While the existing UCSB campus population exceeds the 1990 LRDP growth projections that were the basis of the CAP emission growth assumptions, the proposed project would not result in a net increase in UCSB students, faculty, or staff. Therefore, the proposed project would be consistent with the Santa Barbara County CAP.

Project-related construction operations, including the operation of equipment and the excavation of soil, would result in exhaust emissions and fugitive dust emissions, including PM_{10} and $PM_{2.5}$. Project-related construction activities that would result in the highest emission levels would be the excavation of soil for foundation preparation and infrastructure installation. The SBCAPCD has not established a threshold to determine when construction-related ozone precursor emissions result in a significant impact. However, the APCD uses 25 tons per year for ROG and NO_X as a guideline for determining the significance of construction impacts and further indicates that in the interest of public disclosure construction-related NO_X, ROC, PM_{10}, and $PM_{2.5}$ should be quantified (County of Santa Barbara 2008b). The URBEMIS 2007 (version 9.2) computer program was used to estimate these emissions. The results show that project construction activities would generate: 1.21 tons/year NO_X, 0.17 tons per year of ROC, 0.31 tons per year of PM_{10}, and 0.14 tons per year of $PM_{2.5}$. Levels of ROC and NO_X fall well below the recommended guideline for determining significance (25 tons per year).

Fugitive dust has the potential to result in nuisance impacts and Santa Barbara County is a non-attainment area for state air quality standards for PM_{10}. Surrounding buildings (Bio-II and MSB) would be exposed to dust generated during construction of the proposed building addition. The Santa Barbara County APCD requires that discretionary projects implement dust control measures to minimize emissions of PM_{10} and to reduce the potential for dust-related nuisance impacts (County of Santa Barbara 2007b). Construction-related emissions of PM_{10} and $PM_{2.5}$ would be less than significant if recommended mitigation measures are implemented.

Long-term project impacts would be associated with area source emissions from natural gas consumption by building space heating systems and stationary source emissions from the operation of a new 100,000 Btu/hr natural gas boiler. The proposed project would not contribute regional emissions of criteria pollutants from mobile sources, as the new building occupants would come from an existing building on the UCSB campus and from two existing

buildings elsewhere in the region (e.g., the Santa Barbara Harbor). Therefore, the population served by the building already lives and drives in the region.

As indicated above, there are currently no published thresholds for measuring the significance of a project's cumulative contribution to global climate change. However, the proposed project will implement measures to minimize its contribution to GHG emissions.

Thresholds adopted by the APCD state that a project would have a significant air quality impact if it were to cause a carbon monoxide "hot spot" where the California one-hour CO standard of 20 parts per million or the 8-hour CO standard of 9 parts per million is exceeded. This typically occurs at severely congested intersections or from particular types of land uses (e.g., drive through facilities). The proposed project would generate minimal traffic, therefore CO emissions would have a *de minimus* effect, if any.

In addition to emissions of criteria air pollutants, the operation of the new natural gas boiler would result in emissions of toxic air contaminants (TACs). However, the recently released UCSB LRDP Draft EIR and associated Health Risk Assessment determined that the health risk from operation of the campus as a whole following build-out of the 2008 LRDP would be less than significant (UCSB 2008b). This analysis accounted for all sources of TACs including natural gas boilers.

The natural gas boiler to serve the OSEB will require a permit from the SBCAPCD and conform to emission limits and controls under Rule 360 emissions standards.

Operation of the proposed project would not result in the creation of objectionable odors.

6.4.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, no construction or visitor vehicle emissions would result. No other emission would occur. No impact to air quality would result.

6.4.4 Mitigation Measures

The following mitigation measures would reduce impacts from dust generated during construction to less than significant.

- During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used to prevent dust from leaving the site and to create a crust after each day's activities cease.
- During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the later morning, after work is completed for the day, and whenever wind exceeds 15 miles per hour.
- Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation.

The following mitigation measures would also further reduce project-related emissions of ozone precursors during construction:

- All portable construction equipment shall be registered with the state's portable equipment registration program or permitted by the District by September 18, 2008;
- Diesel construction equipment meeting the California Air Resources Board's Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting Tier 2 or higher emission standards should be used to the maximum extent feasible;
- The engine size of construction equipment shall be the minimum practical size;
- The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at one time;
- Construction equipment shall be maintained in tune per the manufacturer's specifications;
- Construction equipment operating on-site shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines; and
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible;
- Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed on equipment operating on-site;
- Diesel powered equipment should be replaced by electric equipment whenever feasible;
- Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used whenever possible; and
- Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.

The UCSB Office of Campus Planning and Design shall ensure measures are on building construction plans and instructions. Design and Construction Services inspectors shall ensure compliance on-site.

6.5 Recreational Resources

6.5.1 Existing Environment

UCSB has opportunities for informal recreation through the use of adjacent paths, bikeways, beaches, Goleta Beach park, and numerous open space courtyards and grassy areas. Organized recreational opportunities are provided by UCSB's Recreation Center and associated playing fields. The UCSB Department of Physical Activities and Recreation offers numerous classes to the public as well as UCSB students, faculty, and staff members. There are no organized recreational facilities located in the vicinity of the project site. A bike path currently traverses the project site.

6.5.2 Environmental Consequences—Proposed Action

There would not be an increase in Campus population as a result of the proposed project; therefore there would not be project-specific or cumulative impacts to recreation facilities. Relocation of the existing bike path will result in no net effect to this informal recreational resource.

6.5.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, the project areas would either continue as a temporary bicycle path and storage area. No significant impacts to recreational resources would result under the no-action alternative.

6.5.4 Mitigation Measures

No impact mitigation measures would be required.

6.6 Cultural Resources

6.6.1 Existing Environment

Section 106 of the National Historic Preservation Act of 1966 and its amendments, as set forth in 36 CFR Part 800, require federal agencies to consider the effects of their actions on historic properties. This includes seeking input from the State Historic Preservation Officer (SHPO) and, as necessary, the Advisory Council on Historic Preservation. An evaluation of records describing properties listed or eligible for listing on the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR) was performed using data obtained from the California Historic Research Information System (CHRIS) in 2008 and from the recently prepared UCSB LRDP Draft EIR.

The UCSB campus has been subject to many cultural resource surveys that have recorded the location of 27 prehistoric/Native American archaeological sites (UCSB 2008b). The identified archaeological sites are generally located along the perimeters of the Main, Storke, and West Campus areas. Many of the sites have suffered moderate to severe disturbance resulting from historic development activities that occurred before UCSB was established. These activities include the use of the campus site as a borrow area to obtain fill material used to construct what is now the Santa Barbara Airport and the construction of World War II Marine Corps facilities. Recent assessments indicate that each area may also contain buried archaeological deposits of scientific value and cultural importance to contemporary Native American Indians (UCSB 1990a).

In May of 2008, URS archaeologist Suzanne Black conducted a cultural resources record search at the CHRIS to identify any cultural resources studies conducted and sites recorded within the study area, defined as all areas within a half-mile radius of the proposed OSEB. A

record search that included the project area was conducted in 2006 by Far Western Archaeological Research Group (FWARG) has been updated and applied to this analysis (FWARG 2008).

The record search revealed that no cultural resources are located within the proposed OSEB site, but one prehistoric archeological site (Site 1954-1) is recorded approximately 150 feet to the northwest. FWARG notes that the only information on this site is a notation on Glassow's (1973) map that "burials encountered during construction of Noble Hall "Bio I" c. 1954 Acc:326." The date indicates the burials were discovered during the early phase of UCSB development and subsequent investigations have not identified other cultural material in the area (FWARG 2008). The FWARG report considered all areas within 40 meters of a known site location to have a high sensitivity for containing other archaeological material. The OSEB site is immediately adjacent to the 40-meter buffer zone around Site 1954-1 (FWARG 2008) and is considered sensitive as well.

The only other site documented within the half-mile study area is CA-SBA-3916, a seven-meter long buried shell scatter discovered during trenching. This site is located more than one quarter-mile from the proposed OSEB and is described as NH-1 (temporary designation) (FWARG 2008). No historical or paleontological sites are located within the proposed project site.

The project site has been disturbed and the geotechnical report indicates the original ground surface has been covered with approximately 5 feet of artificial fill (Fugro 2006). As a result, the project area has not been previously surveyed to current professional standards for cultural resources, but has been identified as being within an area of moderate/high sensitivity for buried cultural resources (FWARG 2008).

Policy 30244.4 of the LRDP indicates that during any grading and other activities that may result in ground disturbance on archeological sites, a non-University of California affiliated archeologist recognized by the State Office of Historic Preservation and a Native American representative shall be present. Policy 30244.5 of the LRDP requires contractors to temporarily suspend activities if archaeological or paleontological resources are disclosed during any planning, pre-construction, or construction phase of a project activity that could damage or destroy these resources (UCSB 1990b). Activities are suspended until a non-University archeologist recognized by the State Office of Historic Preservation has examined the site. Further, according to this policy, mitigation measures shall be developed and implemented to address the impacts of the project on archeological resources.

6.6.2 Environmental Consequences—Proposed Action

There are no historical structures located on the proposed project site. There are no known archaeological surveys of the project area, hence, no known or recorded archaeological

resources have been identified to date. Prehistoric burials recorded as Site 1954-1 were discovered in the 1950s approximately 150 feet to the northwest and in areas beyond that distance. The project area is located within a region of moderate/high sensitivity for buried cultural resources FWARG 2008. .

The site has been previously disturbed by the construction of the existing cinder block structure and storage facilities, underground utilities, service road and parking, bike parking area and path, landscaping, etc., and is presently covered with an uncertain amount of artificial fill estimated to be approximately 5 feet deep (Fugro 2006). According to the project's geotechnical engineering studies, about the top 3.5 feet of soil under the building foundation would be removed, conditioned, returned to the exposed subgrade, and compacted in place (Fugro 2006 and 2008). The fill would not contain intact cultural resources that meet criteria for listing in the NRHP) or the CRHR, but could contain disturbed archaeological materials bulldozed from nearby archaeological sites like Site 1954-1. Such materials could include human remains, grave goods, and other artifacts. In addition, there is a moderate to high potential that the proposed project site could contain buried, undisturbed prehistoric resources that could be affected by excavations associated with the installation of 28-foot long foundation piers. Such resources could meet criteria for listing in the NRHP and/or the CRHR.

There are no known prehistoric or historic cemeteries within the project site, but in 1954 prehistoric burials were noted approximately 150 feet away of the site, and the project site has a moderate/high sensitivity for containing buried cultural resources.

There are no known paleontological resources located on the UCSB campus and there are no unique geological features located on the proposed project site. Best management practices such as placement of hay bales and a sediment fence around the excavated area would be implemented. Drainage from the project site would be directed to the east in an existing storm drain, which outfalls on the coastal bluffs above the beach to the east of the site.

In accordance with Section 106 of the NHPA, the SHPO was contacted regarding this opinion. NOAA and its development partners will complete the coordination process with the California SHPO regarding indirect effects to resources potentially eligible to the NRHP and the CRHR.

6.6.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, the construction of a structure and related site preparation and landscaping would not occur. The subject property would remain vacant or be used for another purpose by UCSB. No direct or indirect impacts to known archaeological resources or historic properties would result under the no-action alternative.

6.6.4 Mitigation Measures

While the project site is not located on a known archaeological site, it is within an area that has moderate/high sensitivity for containing buried cultural resources and has not been previously tested. A qualified archaeologist and a local Native American will monitor all deep excavation activities (i.e., those at or deeper than 5 feet below the ground surface and below near-surface fill material) to identify cultural resources that may be encountered during construction. The schedule for monitoring will be established during a pre-construction consultation with qualified monitors, the construction contractor, and UCSB staff. In the event an archaeological resource is encountered during project construction, all earth disturbing work will be temporarily suspended or redirected until the nature and significance of the find is evaluated and impacts mitigated through data recovery and recordation.

6.7 Biological Resources

6.7.1 Affected Environment

The project site is located in an urban environment that is paved with asphalt and concrete and landscaped with ornamental vegetation. Landscaping includes seven mature Eucalyptus trees (*Eucalyptus maculata* var. *citriodora*), one small cypress (*Cupressus* sp.), one small ornamental oak (*Quercus* sp.), five palm trees, various ornamental shrubs, and a manicured lawn. The landscaping was installed at the time of construction of the adjacent Bio-II building and on-site facilities (e.g., service and bicycle parking). There are no native plants, vegetation types, or wildlife habitats on the project site; however, landscaped shrubs and trees are suitable habitat for wildlife species adapted to urban area and frequent maintenance activities.

Mature eucalyptus, oak, cypress, and other tall trees on campus lands provide suitable roosting and nesting habitat for various bird species, including red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*), white-tailed kite (*Elanus leucurus*), great horned owl *(Bubo virginianus*), barn owl (*Tyto alba*), American crow (*Corvus brachyrhynchos*), and other species (UCSB 2008b). The eucalyptus, cypress, ornamental oak, and palm trees on-site are not native to the area, but may provide roosting and nesting habitat. Additionally, the dense ornamental shrubs on-site may provide marginal songbird nesting habitat. A site visit conducted during May 2008 by URS biologists did not reveal any active nesting sites.

The California Coastal Act defines environmentally sensitive habitat (ESH) areas as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development.” There are no ESH areas at the proposed

project location. The nearest ESH areas to the site are located east across Lagoon Road and include the habitats associated with the coastal bluff and beach.

6.7.2 Environmental Consequences—Proposed Action

There are no special-status species or suitable habitat for these species on the project site. Special-status plant species are unlikely to occur because native habitat was removed to install ornamental vegetation and the urban setting of the site greatly reduces the opportunity for native plant propagules to disperse on-site and thrive under current conditions. In addition, special-status plant species are known to occur within the campus but not in the vicinity of the project site. Special-status species such as Coulter's saltbush (*Atriplex coulteri*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), southern tarplant (*Centromadia parryi* ssp. *australis*), Contra Costa goldfields (*Lasthenia conjugens*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), black-flowered figwort (*Scrophularia atrata*), and estuary seablite (*Suaeda esteroa*) may occur on campus (California Department of Fish and Game [CDFG], California Natural Diversity Database [CNDDB] 2008), but are not expected to occur on-site. Special-status animal species are not expected to occur for similar reasons as the plant species. Special-status species such as western snowy plover (*Charadrius alexandrinus nivosus*), Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), brown pelican (*Pelicanus occidentalis*), light-footed clapper rail (*Rallus longirostris levipes*), California least tern (*Sterna antillarum browni*), sandy beach tiger beetle (*Cicindela hirticollis gravida*), globose dune beetle (*Coelus globosus*), mimic tryonia (*Tryonia imitator*), monarch butterfly (*Danaus plexippus*), and tidewater goby (*Eucyclogobius newberryi*) are known to occur on the campus but not near the project area (CDFG, CNDDB 2008). The fully protected white-tailed kite (*Elanus leucurus*) was discussed in the UCSB 2008 LRDP Draft EIR as occurring near the campus; however, it is not expected to occur on the project site due to the absence of suitable habitat. The lack of habitat, substantial urban development, and on-going ornamental landscape maintenance significantly reduce the opportunity for special-status species to occupy the site. Special-status bird species may infrequently nest in the eucalyptus trees or ornamental shrubs and forage in nearby habitats.

The proposed project site does not support riparian or other sensitive habitat. Construction or operation of the project would not result in any direct or indirect effects to ESH areas located across Lagoon Road. The proposed project site does not support wetlands as defined by the California Coastal Commission or the U.S. Army Corps of Engineers (USACE), and no wetland resources are located adjacent to the proposed project site.

The proposed project site is surrounded by development, including roadways, buildings, parking lots, bike paths, and ornamentally landscaped areas. Therefore, no local wildlife movement is expected through the proposed project area; however, common migratory bird

species protected under the Migratory Bird Treaty Act (MBTA) and CDFG Code are likely to nest in the on-site shrubs and trees. A list of bird species under the MBTA can be found at the following site: http://www.fws.gov/migratorybirds/intrnltr/mbta/mbtandx.
html.

The proposed project site is not part of any habitat conservation plan, and development of the site would not adversely affect the conservation of any rare habitat, or threatened or endangered species and would be consistent with related policies found in the existing UCSB LRDP.

No marine mammals would occur nor would be affected by the proposed action; hence, the National Marine Fisheries Service was not contacted for informal consultation under Section 7 of the federal Endangered Species Act (ESA). The USFWS has been contacted regarding a "no adverse effect" determination as it relates to federally protected species. California Department of Fish and Game was also contacted regarding this determination relative to state-protected species and natural areas. No federally designated wild and scenic rivers would be affected.

To avoid potential impacts to nesting special-status bird species during shrub and tree removal, the mitigation measure described below shall be implemented.

6.7.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, no construction would occur at the subject site and existing urbanized conditions would remain. Existing biological resources, including the potential for nesting birds, would remain unchanged. No effects to biological resources are expected to result under the no-action alternative.

6.7.4 Mitigation Measures

Prior to the initiation of ground-disturbing activities and the removal of trees during the nesting season for sensitive birds (February 15 through August 31) a biological survey of the shrubs and trees shall be conducted by a qualified biologist within two weeks of construction to prevent impacts to nesting sensitive bird species. Consideration should be given to removing on-site trees and shrubs slated for removal in advance of the nesting season for sensitive birds beginning February 15.

Should active raptor nests or nests of any other birds protected by state or federal law be identified during a pre-construction biological survey, then protective fencing should be installed and all construction work conducted at least 200 feet from the nest, or greater if determined necessary by a qualified biologist in consultation with CDFG. If active nests are located and a tree or shrub is scheduled for removal or alteration, these activities must occur after the birds have fledged or between September 1 and January 31, whichever is later.

6.8 Floodplains and Wetlands

6.8.1 Existing Environment

A jurisdictional wetland is characterized as an ecosystem with three criteria present, as defined by the *U.S. Army Corps of Engineers Wetlands Delineation Manual* of January 1987. The criteria are: a water table that is recurrently at or near the surface, the presence of hydric soils, and the presence of hydrophilic vegetation. The site is primarily covered with an asphalt surface and ornamental vegetation. Soils with seasonally standing water and hydrophilic vegetation are absent. All historic, natural hydrological processes have been interrupted by prior development and landscaping. No man-made conditions are present that support wetlands within the project's area of potential effect.

The 100-year floodplain is an area with a flood elevation that has a 1-percent chance of being equaled or exceeded each year. Under E.O. 11988, *Floodplain Management*, structures should not be built in the 100-year floodplain or, if unavoidable, built so the finished floor elevation is above the 100-year storm flood elevation as determined by the Federal Emergency Management Agency (FEMA) (President 1977a). Floodplain management is intended to minimize the potential for property damage and to maintain functions of the hydrologic cycle. The proposed project site is not located within the boundary of the 100-year floodplain area (FEMA 1985) or within a flood hazard area (UCSB 2008b). The only tsunami to strike the Santa Barbara area occurred in 1812 as a result of an offshore earthquake (UCSB 1990b). The project site has not been identified as within an area that could be inundated by a tsunami (UCSB 2008b).

6.8.2 Environmental Consequences—Proposed Action

The potentially affected area does not contain jurisdictional wetlands indicators or known wetlands. The proposed project site does not support wetlands as defined by the California Coastal Commission or the USACE, and no wetland resources are located adjacent to the proposed project site. The proposed action would conform to policies for protection of wetlands set forth in E.O. 11990, *Protection of Wetlands*, (President 1977b).

The proposed OSEB site lies within a Zone X floodplain, an area outside the 100-year and 500-year floodplains. The proposed project is outside of the 1-percent chance floodplain and would be in conformance with floodplain management policies in E.O. 11988. No significant impact to wetlands and floodplain resources would result.

The project area elevation is 42 ft MSL. Given the relative infrequency of seiches and tsunamis at UCSB and the relative elevation of the project location above mean sea level, there is little potential of impacts from these natural occurrences. The project is highly unlikely not expose humans or structures to a significant risk of loss, injury, or death related to flooding.

Impacts to wetlands and floodplain resources would not be significant.

6.8.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, no change to wetland or floodplain resources would occur.

6.8.4 Mitigation Measures

No mitigation measures would be required.

6.9 Aesthetics

6.9.1 Existing Environment

The aesthetic environment includes scenic quality, ambient noise and related characteristics and aesthetic values. The visual resources of the proposed project site consist of natural and man-made features that can be seen from the proposed project site at any given viewing location. The project site is currently occupied by an existing low-lying structure that houses seawater facilities, storage facilities, service vehicle access and parking lot, motorcycle parking, a bicycle path and bicycle parking area, and landscaping. As the project site is located along the eastern edge of the Main campus, views towards the Pacific Ocean and coastal bluff are available from the site to the east and southeast. Views from the site to the north, west, and south are primarily of buildings and landscape areas. Views within the interior of the Main Campus to the west of the site are primarily of buildings and landscaped areas as well, however, several narrow view corridors to the Pacific Ocean and the Santa Ynez Mountains are available as identified in Figure 49 of the 1990 LRDP. In particular, a corridor that provides views towards the ocean is identified along Lagoon Road located adjacent to the project site. Lagoon Road is also identified as providing views towards the ocean. Additionally, the pedestrian path along the coastal bluff in this part of the campus provides intervening views of both the ocean and the mountains (UCSB 2008b). However, mountain views from the project site are blocked by adjacent buildings.

The proposed project is located in the 45-foot height limit, as shown in Figure 19 of the 1990 LRDP. The Bio-II building to the west and the MSB to the north are within the 65-foot height limit, but Bio-II was constructed at 105 feet above ground level before the LRDP height limits were established. The Anacapa Residents Hall to the south across UCen Road is within the 45-foot height limit. Existing buildings within the Main Campus are mostly between 35 and 65 feet in height (UCSB 2008b). The OSEB will be approximately 31-feet high, well within the 45-foot height limit of the 1990 LRDP.

Principal sources of noise on the Main Campus include outdoor events or “rallies” at Storke Plaza or outside of Cheadle and Campbell Halls, automobile traffic, and construction activities. Off-campus sources of noise include aircraft, trains, and automobiles. The primary

noise sources of concern at UCSB are arterial roadway and highway traffic, and aircraft activities associated with the Santa Barbara Municipal Airport (UCSB 2002a).

Land uses generally regarded as being "sensitive" to elevated noise levels include facilities such as residences, hospitals, schools, guest lodging and classrooms. The proposed project site is currently occupied by a cinder block structure housing seawater facilities, storage facilities, service road and parking, a bicycle parking lot and path, and ornamental vegetation and trees. There are academic and research buildings to the north and west of the site, and residential buildings to the south of the project area.

UCSB established an interior noise standard for classrooms of 52 dBA Leq (decibels with A-weighted sound level equivalent) for construction noise (UCSB 1990b). Construction noise impacts would be most noticeable at facilities such as student housing, libraries, and classrooms.

6.9.2 Environmental Consequences—Proposed Action

No substantial adverse effect on a scenic vista would result from implementation of the proposed action. The proposed two-story building would be 31 feet tall, much lower in height than the adjacent 105 foot-tall Bio-II building immediately west and the MSB to the north. As the proposed building would not exceed the heights of the surrounding buildings it would not block scenic views of the mountains or ocean from any public vantage points. Additionally, the building would not interfere with coastal views identified in LRDP Figure 49, as the proposed building would not interfere with ocean views along the Road or Lagoon Road view corridors. It would also not interfere with views of the ocean or mountains from the coastal bluff trail located east of the site. Further, the proposed building would be setback sufficiently far to ensure that its proposed design mass would not alter existing views from the public beach.

The group of three 24- to 26-inch diameter multi-prong Eucalyptus trees and one 10-inch Eucalyptus tree growing along the western edge of the site would be removed from the project site. Additionally, the three, 12- to 14-inch Eucalyptus trees on the southwestern corner of the site will also be removed. These trees enjoy no protection or other distinction as aesthetic or heritage resources. The trees were originally planted as landscaping during the development of this part of Campus. The trees would be replaced with the planting of new trees along the western edge of the site, in a similar location and pattern. Further, the landscaping proposed for the site would result in the planting of many other trees (approximately nine Catalina Cherry, six ironwood trees, and one Island Oak). These new trees would partially offset the minor visual effect of taking the existing on-site Eucalyptus trees.

The proposed action would not substantially contribute to new ambient light or glare. A minimal amount of security lighting would be installed on the new building and it would be in conformance with existing surrounding lighting. Other than the Pacific Ocean to the immediate east and southeast, no unique aesthetic or visual features or byways are present on-site.

The proposed building would be consistent with the existing visual character of the project site and its surroundings. The site is surrounded by development on three sides, including academic buildings to the north and west, and residential buildings to the south. The proposed building would be lower in stature than the surrounding buildings and would not attract disproportionate visual attention or dominate the visual setting.

There would be short-term noise generation from demolition and site preparation (tree removal and grading) and from foundation development and structure framing. Site preparation is estimated to take approximately four weeks. Therefore, noise generated by site preparation and grading would be short-term. Standard construction equipment would be used. Typical construction equipment noise levels measured at a distance of approximately 50 feet from the construction equipment typically can peak at 89 dBA, but can range between 75 to 95 dBA (Bolt, Beranek and Newman, 1971; USEPA 1971).

During the construction period, noise would be generated by the use of vehicles, construction equipment, and construction activities. The peak level of noise from construction equipment or similar apparatus at 50 ft from the source would be about 95 dBA. Noise would occur primarily during normal working hours and would dissipate with distance from the source. On weekday working hours, typically 7:30 a.m. to 5:00 p.m., during portions of the construction period, the proposed project would pose a temporary nuisance due to construction-related noise exposure at the adjacent residence.

Construction noise would occur intermittently and sporadically during the construction process and would be a minor, temporary impact. To reduce noise effects on residences in the area, demolition and construction activities would occur during normal working hours to the maximum extent possible. Use of excavating equipment near any particular property would occur primarily during normal working hours.

A temporary nuisance of noise, potentially exceeding 89 dBA, is likely to occur to occupants of a student residence building immediately to the south and southwest of the project site during portions of the construction period.

No activities that would constitute sources of substantial noise are associated with the proposed project. Long-term noise potentially experienced outside the project boundary would be limited to periodic bus movements and service vehicle supporting the OSEB. These

project-related sources are not expected to generate noise levels that would constitute a significant impact.

No significant short- or long-term noise impact is expected to occur due to implementation of the proposed action.

6.9.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, existing land uses and scenic quality would be unchanged. No aesthetic (scenic or noise) impacts to the local environment would occur under the no-action alternative.

6.9.4 Mitigation Measures

To minimize the effects of construction-related noise impacts to surrounding buildings the timing of construction activities that would result in noise levels that would cause indoor noise levels to exceed standards (52 dBA for classrooms and 45 dBA for residential) (i.e. heavy equipment use for site grading and demolition, etc.) shall be coordinated with the Department Management Services Officers of affected Departments. This coordination will minimize the effects of peak construction noise impacts and may consist of: alerting adjacent campus building managers and/or occupants of the construction schedule, scheduling construction/demolition activities to occur when classes are not in session; temporarily rescheduling classes; or providing alternative meeting locations for classes that are adversely affected by construction activities.

Specifications shall be included in all contract documents and project plans requiring construction contractors to schedule activities that would reduce construction noise impacts to the extent feasible. The project manager from UCSB's Design and Construction Services shall periodically monitor construction site and coordinate with faculty and staff in surrounding buildings. Department Management Services Officers of affected Departments shall be provided with the name(s) and phone number(s) of the construction site foreman or other individuals who have the authority to respond to complaints regarding excessive noise or vibration levels. The project manager's contact information (name and phone number) shall be posted on-site to address complaints.

Stationary construction equipment that results in noise levels in excess 65 dBA shall be located as far away from noise sensitive receptors as possible. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains or other similar devices.

6.10 Transportation

6.10.1 Existing Environment

Current traffic conditions in and immediately adjacent to the campus were assessed in the UCSB 2008 LRDP Draft EIR, based on traffic counts conducted in 2006 and 2007 (UCSB 2008b). Of the 41 study intersections, 28 roadway segments, and 14 freeway facilities studied, most were determined to be currently operating with acceptable levels of service (LOS) during the peak hour (5:00 p.m. to 6:00 p.m.), based on relevant thresholds. This includes the intersections in the immediate vicinity of the project site (i.e., the Mesa Road/Lagoon Road/Highway 217 roundabout and Lagoon Road/ Road), which are operating at LOS A.

UCSB provides a combination of surface parking lots and parking structures on campus. Parking spaces are designated by permit type. Faculty parking is designated by an "A" permit, staff by an "S" permit, and students and visitors by a "C" permit. Visitors, students, and faculty/staff can purchase hourly parking permits for short-term parking needs. Coastal access parking is also available in Parking Structures 10 and 22 and in several surface lots.

Campus parking surveys were conducted during the 2006 and 2007 academic quarters to determine the utilization of the 5,300 non-residential on-campus parking spaces throughout the day, as well as in the adjacent Isla Vista neighborhood and the Goleta Beach Park (UCSB 2008b). Based on these surveys, 80 percent of parking spaces on the Main Campus were utilized during the peak parking period in Winter 2006 (i.e., on a Tuesday, Wednesday, or Thursday between 2:00 p.m. to 3:00 p.m.). When looking at only staff parking spaces, 85 percent were utilized during this same period. Additionally, less than one percent of faculty and staff park their vehicles in Isla Vista or Goleta Beach Park on a daily basis; over 95 percent reported that they never park in these areas when on campus.

The campus has nearly seven miles of bikeways, which provide access around the edge of campus, an east-west route, and two north-south routes through the center of campus. Lagoon Road and UCen Road located adjacent to the project location are Class III bike routs. In 2005, a bicycle path was constructed (Broida Expressway Bicycle Trail) connecting an existing path on the east side of Lagoon Road, continuing into campus to connect with an east-west path into campus to the Library. The east-west path also connects with a roundabout to a bicycle path to the north and around the northern perimeter of campus. The 1990 LRDP Figure 23 shows the existing Campus bicycle route network. The existing bike parking area providing 78 bike racks and 12 bike lockers will be replaced at the southwest corner of the project location with an improved short- and long-term bike parking in accordance with the UCSB Bicycle System Improvements Policy standards. The proposed bike parking will be installed prior to removal of the existing bike parking area.

There would be one UCSB staff and no more than 26 CINMS and NOAA staff eventually occupying the new building. The UCSB staff would come from an existing location on campus and the projected 26 CINMS and NOAA staff would be new to the UCSB campus. Upon initial occupancy, approximately one-half of the projected 26 CINMS and NOAA staff would be relocated from the Santa Barbara Harbor and elsewhere in the region. Subsequent growth to 26 staff would occur over a longer period of time. Their daily vehicle trips would be considered new to the UCSB campus and vicinity. The trip characteristics of these staff are considered comparable to UCSB faculty and staff. Based on the trip generation rates for "off-campus faculty/staff" identified in the UCSB LRDP Draft EIR (UCSB 2008b), these staff would generate 119 daily trips and 11 peak hour trips (5:00 p.m. to 6:00 p.m.).

Additionally, the educational programs that would be housed in the OCTOS building wing would allow the Oceans Alive! and REEF programs to serve upwards of 37,000 visitors annually, which would result in a net increase of approximately 22,000 annual visitors over the 15,000 visitors currently served. These visitors would arrive and depart campus primarily by bus. Up to six buses per day would be expected during off-peak hours to serve up 180 K-12 students with three buses conducting trips at mid-morning and three buses conducting trips at mid-afternoon.

6.10.2 Environmental Consequences—Proposed Action

There would be a short-term increase in traffic from construction vehicles and equipment entering and leaving the project site located at the corner of Lagoon Road and Road on the eastern edge of the Main Campus. Vehicles would park in a staging area located on the proposed project site. Construction traffic would not increase traffic on major campus roadways near the site, which are operating at acceptable levels of service. A service road on-site will be relocated slightly west to accommodate the proposed building and will be temporarily closed during construction.

The proposed project would result in a minor increase in traffic on roadways or at intersections on campus with the additional 11 peak hour traffic trips. The project's contribution to cumulative traffic impacts would be negligible. The placement of a school bus pull out on Lagoon Road would not substantially increase traffic hazards or alter traffic patterns in the vicinity of the project site. This feature will be designed in a manner consistent with regional standards for school bus pull out areas. Other than the inclusion of a bus turnout area on Lagoon Road, the proposed project would not result in a change of traffic patterns on campus and would not create a safety hazard. Access to the Bio-II building and MSB by emergency vehicles would be available to from Parking Lot #1, to the north and west of these buildings.

The proposed project would slightly increase the demand for parking on the Main Campus, with the eventual addition of a maximum of 26 CINMS and NOAA staff to the campus. The

new staff would be able to purchase staff parking permits and can park in all staff lots. As indicated above, parking utilization of staff parking on campus is at 85 percent and thus available remaining parking capacity exists to serve the new building occupants. Additionally, given the low percentage of UCSB staff that park in Isla Vista or Goleta Beach Park (less than 1 percent), it is highly unlikely that the proposed project would substantially affect parking conditions in these areas.

The proposed project would result in the relocation of the existing bicycle parking area on the site to the southwest corner of the project site and reroute bicycle access to this area. The proposed bike parking area would replace the number of existing racks and lockers and provide additional bike racks and lockers in accordance with the UCSB Bicycle System Improvements Policy standards (UCSB 2008c). According to these standards, an additional 7 new bike racks and 2 new lockers would be adequate to serve the proposed OSEB. At a minimum, the relocated bicycle parking area will provide for these additional racks and lockers. The proposed project would result in adequate bicycle parking and be accessible from the Class III bike route along UCen Road, which connects to the larger bicycle network, in accordance with UCSB Bicycle System Improvements Policy standards.

The existing bike path that crosses the project site will be removed with the project to better serve the campus bike population by avoiding pedestrian conflicts that could occur with the project. A recently constructed bike path just north of the Bren building will provide separated bike access from Lagoon Road into the interior of the Main Campus, linking to the campus bicycle network and bicycle parking locations. Signage will be posted directing bicyclists to this permanent route into the campus from Lagoon Road. Therefore, the proposed project will not affect bicycle access or any other alternative modes of transportation.

With regard to air transportation, no obstruction to navigable airspace would result and there would be no effect to aircraft traffic patterns.

6.10.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, existing vehicle counts and bicycle traffic routes would remain unchanged and no increase in parking demand would occur. Addition of a bus turnout would not occur. No short-term construction-related traffic would result. No adverse transportation or traffic effect would occur under the no-action alternative.

6.10.4 Mitigation Measures

No mitigation measures are required.

6.11 Utilities and Public Services

6.11.1 Existing Environment

LRDP Policy 30254.1, requires that the University not permit a project provided for in the LRDP land use plan until it has been demonstrated that adequate water and sewer services are available to supply the existing and proposed development (UCSB 1990a).

The Goleta Sanitary District (GSD) provides wastewater treatment service for UCSB. The GSD operates the GSD Wastewater Treatment Plant, which is located in Goleta, east of UCSB and southeast of the Santa Barbara Municipal Airport. The treatment plant has a design capacity of 9.7 million gallons per day (MGD), however, the NPDES permit for the plant's ocean outfall sets a plant capacity limit of 7.64 MGD. On average, the daily flow into the treatment plant is 5.78 MGD (UCSB 2004 and UCSB 2008b).

UCSB has a contractual capacity ownership of 7.09 percent of the treatment plant's permitted capacity, which is equivalent to 0.542 MGD. Based on metered flows at the treatment plant, UCSB sends an average of approximately 0.229 MGD of wastewater directly to the GSD (Dewey 2007). Based on current average flow and the University's ownership allocation, there is approximately 0.313 MGD of additional capacity for the University at the GSD Wastewater Treatment Plant.

UCSB receives domestic water supplies from the Goleta Water District (GWD), which also serves most of Isla Vista and the Goleta Valley. Water service to UCSB is provided in accordance with GWD Permit No. 14 (Goleta Water District 1974) and the Water Reclamation Agreement between the Goleta Water District and the University of California (UCSB 1991) which allots the campus a maximum of 778 AFY potable water and 280 AFY reclaimed water. Under these two agreements the university is allowed to increase potable water use by 10 AFY (from 1991) to a maximum of 944.5 AFY.

Based on metered water use records, the University's current potable water use is approximately 529 AFY (Dewey 2007). However, annual potable water use averaged 558 AFY between 1999 and 2004 (UCSB 2008b). Therefore, based on this higher figure, the University has approximately 386.5 AFY available for future use based on the provisions of GWD Permit No. 14 and the Reclaimed Water Agreement. The University used an average of approximately 143 AFY reclaimed water between 1999 and 2004 (UCSB 2008b).

Solid waste that is generated on the UCSB campus is collected by a local waste hauler and recycler, Marborg Industries, and is transported to the Tajiguas Landfill for disposal. The Tajiguas Landfill is operated by the County of Santa Barbara, and is located approximately 20 miles west of the UCSB campus. The landfill accepts solid waste primarily from the City of Santa Barbara and unincorporated areas of the south coast of Santa Barbara County. The

RWQCB and CIWMB approved an expansion of Tajiguas Landfill in 2003. It is estimated that the expansion provided approximately 18 years of disposal capacity. The County continues to explore additional disposal options (Rodriguez 2007).

The OSEB project would not add any University affiliated student, faculty, or staff population to UCSB campus, as the 1 UCSB staff accommodated by the project will come from an existing location on Campus, which will not be backfilled. The 26 CINMS and NOAA staff that would occupy the CINMS wing of the building would be new to the campus. There will be a staff kitchen and 6 new restrooms, containing 7 toilets, 1 urinal, and 1 shower, installed in the building. Additionally, a staff break room will have a sink. The wet exhibits and the classroom laboratory will have seawater facilities, but not sinks with domestic water.

UCSB is located within the service area of the Santa Barbara County Fire Department, and fire prevention and suppression services are provided by that agency. Fire Station No. 17 is located on-campus along Mesa Road, and about two-thirds of a mile northwest of proposed site. Fire Station No. 11 is located off-campus on Storke Road, about one and a half miles northwest of the project site.

The review and approval of campus development plans for compliance with fire protection-related requirements is the responsibility of the UCSB Fire Protection Division of the EH&S Department. The State Fire Marshall's Office has designated the on-campus Fire Protection Division as a "Campus Fire Marshall." The review of proposed development plans, such as access and hydrant locations, is also coordinated with the County of Santa Barbara Fire Department. On-campus law enforcement services are provided by the UCSB Police Department. UCSB is located within the Goleta Union School District and the Santa Barbara High School District.

The proposed facility would also be provided with seawater to serve the Seawater Center and other facilities in the OCTOS building wing and to provide for low-energy cooling throughout the facility. The facility will be connected to the existing seawater system that serves other buildings on the Main Campus, including the adjacent Bio-II building and MSB. In fact, seawater usage for the proposed OSEB was accounted for during the design of the MSB and seawater lines where stubbed from the south side of that building for the proposed OSEB project. The seawater intake for the campus's seawater system is located off-shore with the pump station at Campus Point. The seawater discharge is located on the bluff immediately east of the proposed project site. Seawater will continue to be discharged from this discharge point until the Lagoon Road Storm Drain Project is planned and implemented, which is expected to direct used seawater to the Campus Lagoon. Based on currently proposed uses, the project would not: (1) exceed the pumping capacity of the seawater system, (2) require an increase in seawater intake currently pumped and delivered to the Bio-

II Building and MSB, or (3) result in a change in the volume or composition of seawater discharged to the ocean (Aronson 2008).

6.11.2 Environmental Consequences—Proposed Action

Wastewater that would be generated by the proposed project would be domestic sewage. Therefore, the project would not exceed wastewater treatment requirements that have been established by the Regional Water Quality Control Board.

Potable water would be delivered to the proposed building from the existing and relocated service lines on and adjacent to the project site. Potable water would be used for the kitchen, restrooms, sinks and drinking fountains in the new building. The estimated domestic water increase associated with the operation of the new OSEB project would be approximately 2.3 AFY. Domestic water use resulting from the operation of the proposed OSEB was estimated using a water duty factor of 0.233 AFY for each 1,000 asf of floor area (Dewey 2007).

The proposed building would require 9,730 asf of floor area. Since there is approximately 386.5 AFY of water available, this increase in water delivery would be accommodated by the existing infrastructure and no modifications to off-campus water infrastructure would be required. As there is adequate remaining water supply available to serve the project and other near-term development, the project would not have a cumulatively considerable contribution to the significant cumulative water supply impact that was identified in the 2008 LRDP Draft EIR (UCSB 2008b). Additionally, reclaimed water would be used to irrigate project landscape.

The estimated domestic water use by the proposed project would be approximately 2.3 AFY. After implementation of the proposed project, UCSB would still have approximately 284.2 AFY of water available under the provisions of GWD Permit No. 14. Therefore, domestic water service for the project would not result in a project-specific water use impact.

Reclaimed water is currently used at the proposed project site for landscape irrigation. The proposed project area would be re-landscaped post-construction and would use the same or less amount of reclaimed water that it currently uses. The University has access to 280 AFY of reclaimed water and is using 143 AFY on average since 1994. There are adequate supplies of reclaimed water to meet the foreseeable demands of the proposed project.

Plumbing from the kitchen, restrooms, sinks and drinking fountains in the new building would be connected to existing and relocated sewer piping on the site that currently serves the adjacent Bio-II building and MSB. There would be 27 occupants in the building. If there were a campus-wide increase in potable water use (approximately 2.3 AFY) from the proposed project and all of it were to be discharged to the campus sewer system, the project

would result in wastewater flows of approximately 0.003 MGD (1,120 MGD/AFY x 2.3 AFY/1,000,000 gallons).

This incremental increase in wastewater flow would be accommodated by treatment capacity that is available to the University at the GSD. Of the 0.313 MGD capacity remaining at UCSB, approximately 0.310 MGD of capacity at the wastewater treatment plant would remain for use by the University after the occupancy of the proposed building if there were an increase in use. The existing and relocated sewer lines at and adjacent to the project site would have the capacity for wastewater generated by the proposed project.

Due to the very small amount of wastewater that would be generated individually by the proposed project, it would not result in the use of a substantial portion of the remaining treatment capacity that is currently available to the University. Therefore, the project's incremental contribution to cumulative wastewater treatment capacity impacts is not cumulatively considerable, nor significant. It should also be noted that the 2008 LRDP Draft EIR did not identify significant cumulative impacts related to future increased wastewater flows to the Goleta Treatment Plant from UCSB and other growth (UCSB 2008b). Further, compliance with LRDP Policy 30254.1 will ensure that future development provided for in the 1990 LRDP land use plan will not be permitted by the University unless it has been demonstrated that adequate water and sewer services are available to supply existing and proposed development.

There are storm drains on and adjacent the site, which drain into the Pacific Ocean. The project-related increase in impervious surface area would result in a very slight increase in storm water runoff. There would be some relocation of existing storm water pipes under the site to allow for the building foundation. However, the project would connect to the existing storm drains on or immediately adjacent to the site. No expansion of storm water facilities would be required to serve the project. The proposed project would result in the short-term generation of construction waste, and long-term occupancy generated waste. Construction waste would be recycled to the maximum possible. Since there would be a minor increase in the campus population resulting from the new building, there would not be a substantial campus-wide increase in solid waste generation. The waste stream at the building would consist primarily of office materials that could be recycled, such as paper, office pack (envelopes, post-its, junk mail), and cardboard. Recycling containers would be placed in offices and reproduction areas of the building to collect recyclable office materials. The University has a Campus-wide recycling collection program to ensure maximum recycling on Campus. Currently, all campus municipal solid waste is collected by Marborg Industries and disposed of at Tajiguas Landfill in Santa Barbara County. Tajiguas landfill was expanded to increase its capacity for another 18 years and would not be impacted by waste generated from the proposed project. The proposed action would comply with applicable codes and regulations including the California Fire Code (2007 Edition) and National Fire Protection

Association regulations. The proposed project would not add any University affiliated student, faculty, or staff population to UCSB campus. The 26 CINMS and NOAA staff that would occupy the CINMS wing would be new to the campus and would come from existing facilities elsewhere within the region. This increase would not constitute a substantial long-term increase in the population of the project area and therefore fire protection and police services would not be affected and new or expanded facilities would not be required to serve the project. The proposed project would not contribute to a need for additional resources from the public schools system. The proposed action would not have an adverse individual or cumulative impact on utility or public services. Increases in demand for services would be relatively minor and the use of LEED features for energy and water conservation would reduce the potential demand to a minimum for a project of this nature.

The proposed facility would also be provided with seawater to serve the Seawater Center and other facilities in the OCTOS building wing, and to provide for low-energy cooling throughout the facility. However, based on current seawater usage, the project would not: (1) exceed the pumping capacity of the existing seawater system, (2) require an increase in seawater already pumped and delivered to the Bio-II Building and MSB, or (3) result in a change in the volume or composition of seawater discharged to the ocean (Aronson 2008). The current pumping capacity is approximately 992 gallons per minute (gpm). However, only about 270 gpm is delivered to the adjacent seawater users on campus (i.e., the Bio-II building and MSB). Of this quantity delivered, only about 140 gpm is currently being used by these buildings and the remainder is discharged. As the proposed OSEB will have a seawater demand of about 108 gpm, the project should not require any additional seawater pumping or deliveries to the project site, nor will it result in an increase in seawater being discharged to the ocean via the discharge point located on the bluff just east of the proposed project site. Seawater will continue to be discharged from this discharge point until the Lagoon Road Storm Drain Project is planned and implemented, which is expected to direct used seawater to the Campus Lagoon.

The proposed project would not result in water quality impacts associated with increases in seawater intake or discharge volumes. There would be *no impact*.

6.11.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, the proposed construction and operation of a visitor center would not occur. Future use of the site would be undefined; however, new development consistent with the zoning designation would be unlikely to result in a significant adverse effect.

6.11.4 Mitigation Measures

No mitigation measures would be required.

6.12 Hazardous Materials

6.12.1 Existing Environment

The UCSB Office of Environmental Health and Safety (EH&S) has the primary responsibility for coordinating the management of hazardous materials on campus. The Office of ES&H also develops and assists in the implementation of compliance strategies for all federal and state regulations related to hazardous material and waste management.

A 2007 review of readily-available agency databases was conducted in conjunction with the 2008 LRDP Draft EIR to identify known or suspected areas of contamination, underground storage tank locations, solid waste management facilities, and hazardous waste treatment, storage, and/or disposal locations (UCSB 2008b). The records search identified one leaking underground storage tank (LUST) site and one former military site in proximity to the OSEB project site, including:

- Building 408, Tank 2 - LUST Site on Main Campus with diesel fuel release affecting drinking water aquifer. Site assessment activities are underway. This site is about 1,500 feet northwest of the OSEB project site.
- Former Naval Air Station – Formerly Used Defense Site (FUDS) encompassing 1,492 acres including Main Campus. Underground storage tanks were removed, but it's unclear whether contamination still exists at these sites. Closest tanks sites are about 600 feet to the west of the project site.

Additional information about the historical military uses and associated potential contamination is provided below, based on information from the 2008 LRDP Draft EIR (UCSB 2008b).

In 1940, the Civil Aviation Administration proposed improving the airport located in Goleta, eight miles to the north of Santa Barbara. Construction began in 1941 and included a new terminal for United Airlines and filling in the Goleta Slough to accommodate three new runways. In 1942, the Marine Corps Air Station (MCAS) was commissioned and most of the construction was finished by 1943. MCAS Santa Barbara consisted of 586 leased and 900 owned acres supporting 180 aircraft. The barracks housed 493 officers, 3,109 enlisted men, and 440 women marines. There were also 323 civilians assigned to the base. In 1952, UC Santa Barbara acquired the former barracks on the coastal plateau. The barracks were heated with diesel fuel-powered heaters. The diesel fuel was kept in 20 underground storage tanks (USTs) of various sizes located throughout the site. Some of the USTs leaked and the contamination in the soil required remediation. The Army Corp initiated its FUDS process in the late 1980s with the removal of USTs located at the campus. All 21 tanks (20 fuel USTs and one septic system) were removed by the Corps. After the tanks were removed, sidewall and floor samples were collected to determine if soil contamination was present at concentrations in excess of Santa Barbara County Fire Department, Fire Prevention Division

(SBCFPD) thresholds. According to the Corps, there are currently no ongoing assessments or remediation activities scheduled due to a disagreement regarding indemnification of the University by the Corps.

Ammunition and explosives have also been found at several locations within the Main Campus and in the ocean surf zone. Ammunition was discovered in a bunker behind the police station in 1988. Two AN-MK5 three-pound practice bombs were discovered in the bluffs and another on the beach in 1990. The bombs were filled with red phosphorous and were deemed active. Divers offshore have also reported encounters with bombs similar to the AN-MK5. The Corps is responsible for the removal of all explosives and ammunition.

The OSEB project will include a Classroom Laboratory and a Seawater Center with wet and dry exhibits. These facilities will generally not include the use of hazardous chemicals. However, there will be specimens on site, which could be preserved in formaldehyde or formalin. Potentially hazardous chemicals such as disinfectants and cleaning solutions used in housekeeping functions, toners and printing fluids used in document reproduction would be used during operation of proposed new building.

6.12.2 Environmental Consequences—Proposed Action

An Environmental Database Report (EDR) was prepared in May 2008 for the subject property to identify any new locations of known site containing hazardous materials, releases, and other adverse conditions. All key federal, state and local databases were queried and analyzed, resulting on one location of interest within ¼ mile of the project a boundary. The results of the search revealed the same findings as the 2007 search, indicating one leaking underground storage tank (LUST) site and one former military site in proximity to the OSEB project site. The LUST site, located at Building 408 on the Main Campus, is located about 1,500 feet northwest of project site. The OSEB project site is located on the 1,492-acre FUDS site that was a former Naval Air Station. Underground storage tanks associated with this site were removed, but it's unclear whether contamination still exists at these sites (UCSB 2008b). The closest tanks sites are about 600 feet to the west of the project site. Additionally, ammunition and explosives have also been found at several locations within the Main Campus. However, there is no known contamination of the proposed OSEB project site (Aghayan 2008).

It is NOAA policy to have properties proposed for acquisition or new facilities proposed for use by NOAA evaluated for impaired environmental conditions. A Phase I Environmental Site Assessment (ESA) using American Society of Testing and Materials (ASTM) guidelines to identify impaired environmental conditions, such as the potential presence of hazardous materials, is recommended in accordance with NOAA policy. This documentation limits NOAA's liability under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). In addition to review of government databases, a Phase I ESA will

consist of a thorough site inspection current for physically impaired conditions, interviews or questionnaires directed to existing and prior owners and occupants, and a limited review of historical maps, aerial photography and other documentation.

Most of the hazardous substances that would be used in the proposed new building are those used for housekeeping and general office use. However, small quantities of formaldehyde or formalin may be present on site as these substances are used in preserved specimens. All hazardous substances would be stored and handled according to federal, state, and UCSB requirements. There is no risk of accidental release of project-related hazardous materials that would create a significant impact to public health or the environment. Other environmental risks, such as the presence of wild fire fuels or coastal bluff erosion, are not associated with conditions at or immediately adjacent to the proposed project site.

No adverse environmental impacts related to hazardous materials are expected to result; however, due-diligence analysis of the potential for impaired environmental conditions should be conducted via the formal ESA process using ASTM Standard E1527-00.

6.12.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, the construction and operation of an education building at the proposed site would not occur. No potential for a release of hazardous materials would result. No impact to the environment or human health would occur under the no-action alternative.

6.12.4 Mitigation Measures

No mitigation measures would be required.

6.13 Socioeconomics

6.13.1 Existing Environment

Under E.O. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, federal agencies must identify and address, as appropriate, disproportionately high and adverse environmental or human health effects on minority populations and low-income populations (President, 1994). Minority communities and low-income communities must also have access to public information on matters related to human health and the environment.

The proposed site is located in Census Tract 29.03 in the county of Santa Barbara, California (U.S. Census Bureau, 2005). As of 2005, this Census Tract had a population of almost 6,000 persons and 687 households. The most recent census data for Santa Barbara County indicate that almost 400,000 persons live in 136,622 dwellings countywide.

The census tract in which the proposed action would occur contains about 1.5 percent of the total population of Santa Barbara County. The percent minority within the tract (20.3%) is lower than that of Santa Barbara County's total percent minority (27.3%). The rate of unemployment is almost 20 percent, which is substantially greater than that of Santa Barbara County as a whole (6.6%). The average per capita income for people within the tract is $6,753, well below the County average per capita income of $23,059. The percentage of the population living in poverty in the census tract (41.5%) is substantially greater than in the County as a whole (14.3%) (U.S. Census Bureau 2005). The reason for the high percentage of low-income and unemployed persons is due to the vast college-aged student population living within this tract.

6.13.2 Environmental Consequences—Proposed Action

The proposed action would not add to the student, faculty, or staff population at the UCSB campus. The relatively few NOAA staff that would occupy the CINMS wing would transfer from existing facilities within the region and are not expected to result in housing relocation. The proposed project would not result in significant growth inducing impacts. The project would be served by utilities located on or adjacent to the project site. Expansion of existing utility and infrastructure systems would not be required to serve the project. Additionally, no new roadways would be required to provide local or regional access to the project site.

The proposed construction activity would not result in the removal of any residential units or the displacement of people. Therefore, no housing-related impacts would occur.

Overall, the census tract within which the proposed site is located has a lower percentage of minorities. The substantially higher rate of unemployment, people living in poverty, and lower per capita income than Santa Barbara County as a whole is due to the vast UCSB student population within this tract. The proposed project would provide addition educational opportunities to students and the community, resulting in a minor economic stimulus to the region as a whole.

No significant adverse environmental impacts or human health effects are expected to result from the proposed project. Hence, disproportionately high, adverse environmental effects would not impact low-income or minority communities. No significant socioeconomic effects would result due to implementation of the proposed action.

6.13.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, the proposed construction and operation of the OSEB would not occur. The minor economic stimulus to the region anticipated under the proposed action would not occur and inefficiencies in NOAA administrative capacity and educational opportunities would remain unchanged for the foreseeable future. These effects would not have a significant impact.

6.13.4 Mitigation Measures

No mitigation measures would be required.

6.14 Cumulative Impacts

6.14.1 Existing Environment

Cumulative impacts are those that would result from the combined effects of past, present and reasonably foreseeable future actions in the local area. A list of local reasonably foreseeable development projects planned by UCSB is provided in Table 2. Sources for this list include the University's *Five-year State-Funded Major Capital Improvement Program, 2006-2011* (UCSB 2006) and other projected non-state projects. State capital projects are funded annually without guarantee or commitment to future funding. Some listed projects are unfunded and not approved. Project locations, building sizes, and project schedules are subject to change.

Table 2
List of Reasonably Foreseeable Local Development Projects

Project	Description/Location	Status/Approximate ASF
San Clemente Graduate Student Housing	Site along El Colegio Road and Los Carneros Road. 976 bed spaces of graduate student housing and approximately 850 parking spaces in surface lots and a parking structure.	Under construction.
Education and Social Science Building	Across Ocean Rd. from Rob Gym on Parking Lot 20-2. Includes Graduate School of Education, College of Letters and Science, and lecture hall. Film, TV and Media Center includes theater, editing room, and viewing studios.	Under Construction; 120,000 ASF.
East Gate Installation	The East Gate Installation project: three wall sections clad in sandstone veneer. Wall heights from 8 to 18.9 feet. An 80-foot long steel beam with a bronze skin on top spanning the roadway.	Under Construction.
Isla Vista Foot Patrol	The facility for Isla Vista Foot Patrol on a portion of Parking Lot 40.	Under construction; 5,600 square feet.
N. Campus Faculty and Sierra Madre Housing	172 faculty units adjacent to Phelps Road north of Ocean Meadows Golf Course. Approximately 151 family units located along Storke Road.	Awaiting construction.
Engineering II Building Addition	3-story, 13,460 assignable square-foot, 21,707 gross square-foot addition to the Engineering II building located on the eastern edge of Main Campus.	Awaiting construction.

Project	Description/Location	Status/Approximate ASF
Davidson Library Addition	Four-story addition to Davidson Library including study space, office, storage, etc.	Draft MND circulated - on hold; 40,884 ASF.
Campus Infrastructure Improvement Project	Planned throughout Main Campus, the project would correct critical infrastructure deficiencies in storm drainage, sanitary sewer, potable and reclaimed water and natural gas pipelines.	MND adopted November 2007; Awaiting approvals.
Lagoon Restoration Project	Phased project includes small amphitheatre area, non-native vegetation removal, wetland enhancement, bluff stairs, and a labyrinth.	Planning stages, 0 ASF.
Faculty Club Expansion	Between Parking Lot 23 and Campus Lagoon; addition of dining room, kitchen expansion, 50 rooms for lodging.	Planning stages; ASF unknown.
Ocean Road Housing	543 housing units.	Planning stages.

Source: Office of Campus Planning & Design, updated April 2008.

Supporting the evaluation of cumulative effects for existing conditions and the known future projects listed above, the Campus is currently undergoing a major LRDP update. The UCSB 2008 Draft LRDP and Draft EIR were issued for public review in March 2008. The Draft LRDP update includes the addition of 1.8 million ASF of academic and support space between 2008 and 2025 to serve an additional enrollment of 5,000 students, or a total of 25,000 students. The update also includes: 5,443 additional student bed spaces and 2,331 new units of housing for student, faculty, and staff; new recreational fields; improvements to roads, bicycle, and pedestrian infrastructure; and new parking. Proposed growth contemplated under the UCSB 2008 Draft LRDP and its Draft EIR is included in the cumulative analysis, when relevant.

6.14.2 Environmental Consequences—Proposed Action

When considering the proposed action relative to UCSB's 2008 LRDP Draft EIR under CEQA, the cumulative effect of the proposed action and all past, present and reasonably foreseeable future actions in the immediate area would have significant, unavoidable impacts. However, the proposed NOAA action is not reliant upon or connected to other actions, nor is it relied upon for the occurrence of other actions. For each of the subject areas analyzed in the EA under NEPA, the contribution of the proposed OSEB project to a cumulatively significant impact is not considerable, provided the mitigation measures recommended in the EA (and IS) are implemented. Therefore, the proposed action will not contribute to a cumulatively significant impact to the human environment.

For each of the subject areas analyzed, the contribution of the proposed OSEB project to the cumulative impact is not considerable, assuming appropriate mitigation measures are implemented, such as those recommended in this EA.

6.14.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, the proposed construction and operation of the OSEB would not occur. Based on the analysis of the 2008 LRDP Draft EIR, the cumulative effect of the no-action alternative, combined with all past, present and reasonably foreseeable future actions projects in the immediate area, would still have significant, unavoidable impacts under CEQA. Under the no-action alternative, mitigation measures proposed in the 2008 LRDP Draft EIR would still be warranted.

6.14.4 Mitigation Measures

Implementation of the mitigation measures presented in Section 7, Summary of Mitigation Measures, would be required.

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7 SUMMARY OF MITIGATION MEASURES

7.1 Air Quality

During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used to prevent dust from leaving the site and to create a crust after each day's activities cease. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the later morning and after work is completed for the day and whenever wind exceeds 15 miles per hour.

Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. With regard to the use of construction equipment during construction:

- All portable construction equipment shall be registered with the state's portable equipment registration program or permitted by the District;
- Diesel construction equipment meeting the California Air Resources Board's Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting Tier 2 or higher emission standards should be used to the maximum extent feasible;
- The engine size of construction equipment shall be the minimum practical size;
- The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at one time;
- Construction equipment shall be maintained in tune per the manufacturer's specifications;
- Construction equipment operating on-site shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines;
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible;
- Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed on equipment operating on-site;
- Diesel powered equipment should be replaced by electric equipment whenever feasible;
- Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used whenever possible; and
- Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.

All requirements shall be shown on Construction Documents and adhered to throughout all grading and construction periods. UCSB Office of Campus Planning and Design shall ensure measures are on plans. Design and Construction Services inspectors shall spot check, and shall ensure compliance on-site. APCD inspectors shall respond to nuisance complaints.

7.2 Biological Resources

Prior to the initiation of ground-disturbing activities and the removal of trees during the nesting season for sensitive birds (February 15 through August 31) a biological survey of the shrubs and trees shall be conducted by a qualified biologist within two weeks of construction to prevent impacts to nesting sensitive bird species. If active raptor nests or nests of any other birds protected by state or federal law are located, then protective fencing should be installed and all construction work must be conducted at least 200 feet from the nest, or greater, as determined by a qualified biologist in consultation with CDFG. If active nests are located and a tree or shrub is scheduled for removal or alteration, these activities must occur after the birds have fledged or between September 1 and January 31, whichever is later.

All requirements shall be shown in bid documents and on demolition and grading plans. The mitigation measures related to biological resource impacts shall be adhered to two weeks prior to any ground breaking activities. To avoid construction conflicts with nesting birds consideration should be given to removing on-site trees and shrubs slated for removal prior to the start of the nesting season for sensitive birds (February 15 through August 31).

UCSB Office of Campus Planning and Design shall ensure measures are in bid documents and on plans. The Design and Construction Services project manager shall ensure survey is performed and compliance with survey results is met.

7.3 Cultural Resources

A qualified archaeologist and a local Native American will monitor all deep excavation activities (i.e., those at 5 feet below the ground surface and deeper) to identify any cultural resources that may be encountered during such activities. The schedule for monitoring will be established during a pre-construction consultation with the monitors, construction contractor, and UCSB staff. In the event an archaeological resource is encountered during project construction, all earth disturbing work will be temporarily suspended or redirected until the nature and significance of the find is evaluated and impacts mitigated through data recovery and recordation.

All requirements shall be shown in bid documents and on demolition and grading plans, and adhered to throughout all grading and construction periods. UCSB Office of Campus Planning and Design shall ensure measures are on bid documents and plans.

7.4 Geology and Soils

The following grading and erosion control practices shall be included in the proposed project's erosion control plan and be implemented at the project site for the entire duration of construction.

- If grading occurs during the rainy season (November through March), sediment traps, barriers, covers or other methods shall be used to reduce erosion and sedimentation.
- A site-specific erosion control and landscape plan shall be prepared for all new construction.
- Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm water runoff.
- Grading operations shall be conducted so as to prevent damaging effects of sediment production and dust on site and on adjoining properties.
- Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area shall be fenced to define project boundaries.
- Temporary mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities.
- Sediment traps, silt fences, straw bales, or other similar sediment control measures shall be installed before clearing and grading operations begin.

The project manger from Design and Construction Services shall ensure the erosion control measures including all best management practices are included in project plans, contract documents, and the erosion control plan prior to construction. The project manager shall ensure best management practices are in place during the entire length of construction. The project manager from Design and Construction shall monitor the project site regularly during the entire construction period to confirm best management practices are in place and are effective. The project manager shall report to UCSB planning staff.

7.5 Hydrology and Water Quality

The OSEB project has the potential to result in erosion and sedimentation impacts. Because the project is greater than 1 acre in size the project proponent would need to apply for a NPDES Phase II Statewide General Construction Permit. By adhering to a NPDES permit and following mitigation measures discussed in Geology and Soils immediately above, anticipated short-term water quality impacts would be reduced to a less-than-significant level.

7.6 Noise

New heating, ventilation, and other noise-generating equipment shall be properly shielded to minimize noise generation. Additionally, such equipment shall be adequately maintained in proper working order so that noise levels emitted by such equipment remain minimal.

Specifications for noise shielding shall be included in all contract documents and project plans, and implemented during the construction phase. The project manager from Design and Construction Services shall ensure shielding devices are installed and used during construction.

To minimize the effects of construction-related noise impacts to surrounding buildings the timing of construction activities that would result in noise levels that would cause indoor noise levels to exceed standards (52 dBA for classrooms and 45 dBA for residential) (i.e. heavy equipment use for site grading and demolition, etc.) shall be coordinated with the Department Management Services Officers of affected Departments. The purpose of this coordination is to, if necessary, facilitate actions that will minimize the effects of peak construction noise impacts. These actions may include, but are not limited to: alerting adjacent campus building managers and/or occupants of the construction schedule, scheduling construction/demolition activities to occur when classes are not in session; temporarily rescheduling classes; or providing alternative meeting locations for classes that are adversely affected by construction activities. Specifications shall be included in all contract documents and project plans. Construction contractors shall implement scheduling constraints during the construction phase.

The Design and Construction Services project manager and the Department Management Services Officers of affected Departments shall be provided with the name(s) and phone number(s) of the construction site foreman or other individuals who have the authority to respond to complaints regarding excessive noise or vibration levels.

Information shall be provided to the Design and Construction Services project manager in contract specification documents. The project manager's contact information (name and phone number) shall be posted on-site to address complaints and shared with the Department Management Services Officers. The project manager from Design and Construction Services shall periodically monitor construction site and coordinate with faculty and staff in surrounding buildings. The project manager from Design and Construction Services shall ensure he/she has contact information prior to start of construction and that contact information is accurate.

Stationary construction equipment that results in noise levels in excess 65 dBA shall be located as far away from noise sensitive receptors as possible. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains or other similar devices. The equipment area with appropriate acoustic shielding shall be designated on building and grading plans.

School buses arriving at the site will not be allowed to idle for excessive periods. Signage at the bus drop-off location shall be installed to strongly discourage the idling of buses during drop-off and/or pick up of children. Signage specifications shall be included in contract documents and project plans and installed prior to building occupancy throughout project operation. Project managers from Design and Construction Services shall perform site inspections to ensure compliance.

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8 FINDINGS

The proposed action and no-action alternative would not result in a significant impact to the human environment provided that recommended mitigation measures are implemented.

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9 LIST OF PREPARES

John A. Chamberlain, Project Director, NEPA Project Manager. Mr. Chamberlain has over 24 years of experience preparing NEPA documents for NOAA and in coordinating NEPA/CEQA documents for the ONMS.

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Ana Hudson, Task Leader. Ms. Hudson has over 10 years of experience leading CEQA documents for projects in the county of Santa Barbara and the South Coast region. She managed the preparation of resource-specific contributions to this EA/IS/MND.

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John Davis, Resource Specialist (biological resources). Mr. Davis assisted with the preparation of the biological resources analysis section of this document.

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APPENDIX A

University Of California Santa Barbara
Ocean Science Education Building Project

FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared For:
University of California Santa Barbara
Office of Campus Planning & Design

Prepared By:
URS Corporation

September 2008

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1.0 INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) was prepared in compliance with the California Environmental Quality Act (CEQA) Statutes and Guidelines (Public Resources Code Section 21000 et. seq. and California Code of Regulations Title 14, Chapter 3 Sections 15000–15387, respectively) for the proposed Ocean Science Education Building project on the Main Campus of the University of California, Santa Barbara (UCSB).

The proposed project in being implemented in conformance with the UCSB 1990 Long Range Development Plan (1990 LRDP), which is the current LRDP for the UCSB campus (UCSB 1990b). An Environmental Impact Report (EIR) for the 1990 LRDP was also prepared in 1990 (UCSB 1990a). This IS/MND does not formally tier off the 1990 LRDP EIR, as provided for in CEQA Guidelines Section 15152(a), but it does incorporate general discussions by reference where relevant and concentrates solely on the issues specific to the proposed project, similar to a tiered CEQA document. Additionally, the UCSB Campus is in the process of updating its LRDP and the 2008 Draft LRDP and it accompanying Draft EIR have been circulated for public review (UCSB 2008a and 2008b). This IS/MND incorporates environmental setting information, analyses and technical studies, and thresholds of significance from the 2008 LRDP Draft EIR, as relevant to the proposed project.

1.1 PROJECT OVERVIEW

In partnership with the National Oceanic and Atmospheric Administration (NOAA), the Santa Barbara Campus proposes a 2-story 9,730 assignable square-foot (asf), 15,284 gross square-foot (gsf) Ocean Science Education Building (OSEB), and a related LRDP Amendment. The new facility will house the UCSB's Marine Science Institute's (MSI) Outreach Center for Teaching Ocean Sciences (OCTOS) and new headquarters facilities for NOAA's Channel Islands National Marine Sanctuary (CINMS or the Sanctuary) unit. Functionally, the OSEB is envisioned as an interactive educational building, designed to facilitate learning through hands-on education and investigation, while also efficiently housing the CINMS headquarters.

1.2 PROJECT INFORMATION

Project Title and Number:	Ocean Science Education Building (Project #981220)
Lead Agency Name and Address:	University of California, Santa Barbara, Office of Campus Planning and Design, Santa Barbara, CA 93106-1030
Contact Person and Phone Number:	Shari Hammond (805) 893-3796
Project Location:	University of California, Santa Barbara, Main Campus
Project's Sponsor's Name and Address:	University of California, Santa Barbara, Office of Campus Planning and Design, Santa Barbara, California, 93106-1030

National Oceanic and Atmospheric Administration
Channel Islands National Marine Sanctuary
National Ocean Service, 113 Harbor Way, #150
Santa Barbara, California, 93109

Custodian of the Administrative Record: University of California, Santa Barbara, Office of Campus Planning and Design

Date Checklist Completed: July 2008

1.3 PROJECT OBJECTIVES

The objectives of the project are to: (1) address current space and functional deficiencies in the existing MSI's OceansAlive! learning facility located on the UCSB campus and in the existing CINMS headquarters located in the Santa Barbara Harbor, (2) provide for the long-term space needs of the MSI's OceansAlive! and CINMS programs, and (3) to support the public service missions of the MSI and CINMS and to integrate their outreach and educational programs through the development and use of shared facilities.

1.4 ENVIRONMENTAL SETTING

1.4.1 Regional Setting

The 1,055-acre UCSB campus is just south of the city of Goleta. Downtown Santa Barbara is approximately 10 miles east of the campus and the city of Ventura is 35 miles southeast of the campus (**Figure 1.4-1**). This general area is locally referred to as the South Coast region of Santa Barbara County, a coastal plain about 3 miles wide between the ocean and the foothills of the Santa Ynez Mountains. The South Coast region is bisected by United States (US) Highway 101, which provides connections to the Los Angeles Basin to the south and to the cities of Santa Maria and San Luis Obispo to the north (UCSB 1990a).

1.4.2 Local Setting

The UCSB campus is located along the coast in a portion of the South Coast region known as the Goleta Valley (**Figure 1.4-2**). It lies along a mesa overlooking the Pacific Ocean with views of the Channel Islands to the south and the mountains to the north. Immediately to the north and east of the campus are the Goleta Slough and the Santa Barbara Municipal Airport, which lie within the northerly extension of the corporate limits of the city of Santa Barbara (UCSB 2008a). A mix of industrial uses, the Ellwood residential community, and the Ocean Meadows Golf Course are found to the northwest of the campus within the City of Goleta (UCSB 1990a).

UCSB is composed of four land areas known as the Main Campus, Storke Campus, West Campus, and North Campus. The campuses border the unincorporated community of Isla Vista. The 422-acre Main Campus contains most of the academic and support facilities and is the location of the proposed project site. It is mostly developed although a considerable portion includes small and/or temporary buildings, surface parking lots, and irregularly shaped open space areas (UCSB 2008b). The 184-acre Storke

Campus contains student housing, playing fields, and natural areas. The 273-acre West Campus is largely devoted to a UCSB natural reserve encompassing the Devereux Slough, as well as family student and faculty housing (UCSB 1990a). The 174-acre North Campus is undeveloped and consists of areas surrounding the Ocean Meadows Golf Course. It is comprised of approximately 70 acres of permanent open space with housing designated on the remainder of the property. Two housing projects were approved on the North Campus in late 2006. Construction of these projects is scheduled to begin in 2008 (UCSB 2008b).

1.4.3 Project Setting

The 1.1-acre OSEB project site (**Figure 1.4-4**) is located on the eastern edge of the Main Campus, immediately south of the Marine Science Building (MSB), east of the Biological Sciences II Building (Bio-II), and west of Lagoon Road and the Pacific Ocean (**Figure 1.4-3**). Other development in the project area includes: the Bren building to the north of MSB, Parking Lot #1 to the north of Bio-II, and the Anacapa Residents Hall to the south across UCen Road.

The project site is currently occupied by an existing cinder block structure that houses seawater tanks and facilities, a storage shed and outdoor storage facilities, an asphalt-paved service vehicle access and parking lot, motorcycle parking, a bicycle path and bicycle parking area, landscaping, and underground utilities, including water, sewer, seawater, gas, storm drains, and electrical conduits.

The project site is generally at an elevation of 42 to 43 feet above mean sea level (msl). It is relatively level ground and drains to the east towards Lagoon Road and the coastal bluff slope, which is about 100 feet away from the project site (Fugro 2006). A group of 3, multi-prong Eucalyptus trees measuring 24- to 26-inches at the base and 1, 10-inch Eucalyptus tree are growing along the western edge of the site immediately adjacent to the Bio-II building. Three 12- to 14-inch Eucalyptus trees are located on the southwestern corner of the site, just south of the Bio-II building. Additionally, 5 10-inch palm trees are located on the northeastern corner of the site, adjacent to Lagoon Road. Other ornamental landscaping is also located on the site. A campus bike path passes along the eastern edge of the project site. Bicycle parking, motorcycle parking and moveable lockers are situated in the central portion of the site, just south of the existing seawater structure. There are no significant biological resources that have been identified on the project site or in the immediate vicinity. UCen Road provides access to the project site from Lagoon Road and from campus locations west of the project site. An at-grade ocean bluff-top trail is located east of the project site across Lagoon Road. This trail provides pedestrian access to the existing Research Experience & Education Facility (REEF), the Campus Point beach and the campus Lagoon all located southwest of the project site.

1.5 PROJECT BACKGROUND

The proposed project, consisting of a joint-use 9,730 asf OSEB in two wings, will provide for 5,610 asf to house OCTOS programs, including specialized joint-use facilities (i.e., Seawater Center, Virtual Theater, and Classroom-Laboratory), and 4,120 asf of space to house CINMS headquarters. The background and need for the proposed project are further described below.

1.5.1 MSI's Programs

Since 1969, marine science education and outreach, known today as OceansAlive! has grown in tandem with the rapid increase in environmental awareness and the need for ecological preservation and conservation. Annually, the OceansAlive! K-12 program serves upwards of 15,000 visitors (Simon 2008). Many thousands more are turned away because of limited access to facilities. Organized programs are offered for groups of up to 30 students, 3 times a day, 3-days per week that target K-12 and community college students, and summer interns. Additional programs attract UCSB classes, as well as prospective students and parents. Although some OceansAlive! space needs are being addressed in the MSB (e.g., administrative offices and auditorium), the vitally important seawater center, technology theater, and wet class laboratory that were originally planned and approved as part of the MSB, were not constructed due to funding constraints.

Because hands-on learning is an essential method employed by the OceansAlive! education and outreach program, the absence of these specialized facilities has caused OceansAlive! to rely too heavily on the use of the REEF building and its touch-tanks to support its programs. Although the touch-tank facility is a valuable educational resource, its small size is incompatible with the needs of a major federally funded educational program.

The current OceansAlive! education and outreach program is funded by the MSI base budget, private donations and state and federal grants. Major funding sources available to fund such programs include the NSF Education and Human Resource funds, existing federal grants renewals, and NOAA. To date, UCSB has not competed for many federal education and outreach funding grants for the simple reason that it lacks the adequate facilities required to develop and support a higher volume program. The OSEB OCTOS wing would provide for the needed facility space and characteristics to support the development of new programs and funding sources.

1.5.2 CINMS Headquarters

CINMS is one of 13 national sanctuaries within the Office of National Marine Sanctuaries that is overseen by NOAA. The Sanctuary's primary function is the protection, management and conservation of the ecological, recreational, historic, cultural, scientific and educational resources that encompass 1,658 square miles of the Pacific Ocean, including the Santa Barbara Channel and the waters surrounding the five Channel Islands: San Miguel, Santa Rosa, Santa Cruz, Anacapa, and Santa Barbara.

The CINMS headquarters, research, education, outreach and administrative offices are currently housed in 1,638 square feet of space in the Waterfront Center building located at the Santa Barbara Harbor. These facilities are cramped, lack expansion capability, and have low visitation rates. A total of 14 staff occupy a small office suite. This space, though technically in compliance with the ADA, is sufficiently crowded that access by disabled persons could be impeded. The facility's location is difficult to find and does not meet the Office of National Marine Sanctuaries recommended guideline for views to the water. Additionally, the CINMS headquarters cannot accommodate all CINMS staff and therefore additionally office space is leased in the City of Santa Barbara.

The CINMS facility master plan analyzed projected growth and the financial feasibility of relocating all or portions of the CINMS operation to alternative facilities. The study concluded that the administration, research (except those related to vessels operations), and general outreach programs should be moved to a new joint-use building at UCSB. The study also recommended that the new building accommodate the projected 10-year growth in staff to approximately 26 employees. The proposed OSEB would satisfy the CINMS's long-term space needs and support its public service mission, to promote and expand awareness of marine ecology, conservation, research, exploration, and public environmental policy.

1.5.3 Joint-Use Facility

Meeting the space needs of MSI's OceansAlive! and CINMS programs in a joint-use building would strengthen and enhance the strong partnership between MSI and CINMS that has been built over the past decade through the pursuit of complementary programs in research, education, exploration, conservation, and public service. For instance, CINMS has established collaborative research and training programs with the Institute for Computational Earth Systems Science and the Bren School of Environmental Science and Management on the UCSB campus. The integration of MSI and CINMS outreach and educational programs, combined with the collocation of proposed facilities and personnel within the existing campus infrastructure, will enable greater utilization of current and future resources. In particular, the proposed OSEB will position MSI to attract substantially more donor funds as well as federal funding earmarked for education and outreach programs.

1.6 CONSISTENCY WITH THE LONG RANGE DEVELOPMENT PLAN

The proposed project is consistent with all policies in the 1990 LRDP except it is not specifically identified as a potential building location on LRDP Figure 16, Potential Building Locations and in Table D, Potential Non-Residential Building Development Intensity and Type. As indicated previously, some OCTOS space needs are being addressed in the adjacent MSB (e.g., administrative offices and auditorium). However, the seawater center, technology theater, and wet class laboratory that were originally planned and approved as part of the MSB, were not constructed due to funding constraints. The MSB and adjacent Bren building are located on potential building location 25 on LRDP Figure 16. As demonstrated in Table 1.6-1, adequate site area and building area remains to accommodate the proposed OSEB on potential building location 25, given that the originally planned OCTOS space was not built as part of the MSB. Table D therefore accurately describes the total site and building area for potential building location 25 and does not require revisions. However, Figure 16 would be modified slightly so that the boundary of potential building location 25 encompasses the OSEB project site.

Additionally, LRDP Figures 15 and 23, which show the bicycle route network on the UCSB campus, would also need to be modified to illustrate the removal of the separated path between the OSEB project site on the south and the Bren Building on the north. A recently constructed bike path just north of the Bren building will provide separated bike access from Lagoon Road into the interior of the Main Campus, linking to the campus bicycle network. Additionally, Lagoon Road and UCen Road will continue to provide shared bike access to the project site and vicinity. ~~This action~~ *Both of the above actions* would require a LRDP Amendment.

The proposed project is also consistent with the 2008 Draft LRDP (UCSB 2008a), which is pending final revisions and approval by the Board of Regents of the University of California (The Regents) and the California Coastal Commission. Specifically, the proposed project is consistent with the 2008 Draft LRDP Figure D.3, Proposed Building Sites.

Table 1.6-1
Potential Building Location 25 - Total Remaining Site and Building Area

1990 LRDP Potential Building Location 25	Site Area (gsf)	Building Area (asf)
Existing Marine Science and Bren Buildings	41,658	87,446
Proposed Ocean Science Education Building	8,000	9,730
Total Existing and Proposed	*49,658*	*97,176*
1990 LRDP Table D Total	81,000	103,000
Total Remaining	**31,342**	**5,824**

1.7 REQUIRED PERMITS/APPROVALS

The University of California is the Lead Agency for the proposed project and is responsible for complying with the requirements of the CEQA. The Regents is the primary decision making body for this project. The Regents will approve the design of the project and the associated 1990 LRDP amendment. The California Coastal Commission will also review the project for compliance with the 1990 LRDP as amended and the California Coastal Act. An LRDP Amendment, as described above and a Notice of Impending Development will be submitted to the California Coastal Commission for review and approval upon adoption of this environmental document by The Regents.

NOAA is the lead federal agency for the proposed project and is responsible for complying with the requirements of the National Environmental Policy Act (NEPA).

1.8 CUMULATIVE DEVELOPMENT

A list of reasonably foreseeable cumulative development projects on the UC Santa Barbara campus is provided on Table 1.8-1. Information sources that were used to compile the cumulative development list include the University's *Five-year State-Funded Major Capital Improvement Program, 2006-2011* (UCSB 2006); and other projected non-state projects. State capital projects are funded annually without guarantee or commitment to future funding; some listed projects are unfunded and not approved. Project locations, building sizes, and project schedules are subject to change.

Table 1.8-1
Cumulative List of UC Santa Barbara Development Projects

Campus Project	Description/Location	Status/Approximate ASF
San Clemente Graduate Student Housing	Site along El Colegio Road and Los Carneros Road. 976 bed spaces of graduate student housing and approximately 850 parking spaces in surface lots and a parking structure would be provided.	Under construction; Coastal Commission approval in July 2005; EIR, SCH#2003021071.
Education and Social Science Building	Sited is across Ocean Rd. from Rob Gym on existing Parking Lot 20-21; project to include the Graduate School of Education, the College of Letters and Science, a lecture hall. Film, TV and Media Center to include film theater, editing room, and viewing studios.	Under Construction; Coastal Commission approval in November 2004; EIR, SCH#2004011057; 120,000 ASF.
East Gate Installation	The East Gate Installation project includes the construction of three wall sections clad in sandstone veneer at the East entrance of Main Campus. The wall sections range in heights from 8 to 18.9 feet. An 80-foot long steel beam with a bronze skin would be placed on top of the walls spanning the roadway.	Under Construction; Coastal Commission approval March 2007; Mitigated Negative Declaration SCH# 2006101143
Isla Vista Foot Patrol	The facility to house the Isla Vista Foot Patrol is proposed on a portion of the existing parking lot (UC Santa Barbara Parking Lot 40) of the Isla Vista Theater.	Under construction; Coastal Commission Approval in April 2007; 5,600 square feet; NOE, SCH#2007018195.
North Campus Faculty and Sierra Madre Housing	172 faculty units adjacent to Phelps Road north of Ocean Meadows Golf Course. Approximately 151 family units located along Storke Road.	Awaiting construction; Coastal Commission approval in November 2006; EIR, SCH#2003071178.
Engineering II Building Addition	3-story, 13,460 assignable square-foot, 21,707 gross square-foot addition to the Engineering II building located on the eastern edge of Main Campus.	Awaiting construction, Coastal Commission Approval in October 2007, MND SCH#2007051068 13,460 ASF.
Davidson Library Addition	Four-story addition to Davidson Library including study space, office, storage, etc.	Draft MND prepared and circulated, on hold. SCH#2008011080 40,884 ASF.
Campus Infrastructure Improvement Project	Planned throughout the Main Campus, the project is proposed to correct critical infrastructure deficiencies. The project will address storm drainage, sanitary sewer, potable and reclaimed water and natural gas pipelines.	MND adopted November 2007, SCH#2007101108 Awaiting submission of Notice of Impending Development to the Coastal Commission.
Lagoon Road and Ocean Road Storm Drain	This project eliminates two bluff-top storm drain outfalls that drain to the Pacific Ocean. The system would be replaced with a storm water system that would drain to the Campus Lagoon.	Planning stages, 0 ASF

Table 1.8-1
Cumulative List of UC Santa Barbara Development Projects

Lagoon Restoration Project	This project would provide, over time, a small amphitheatre area, removal of non-native vegetation, wetland enhancement, the construction of bluff stairs, and a labyrinth.	Planning stages, 0 ASF
Faculty Club Expansion	Site located between Parking Lot 23 and the Campus Lagoon; addition may include dining room and kitchen expansion as well as the addition of 50 rooms (lodging).	Planning stages; ASF unknown.
Ocean Road Housing	543 housing units with 407 units located west of the roadway over twelve blocks and an additional 136 units proposed as part of two parking structures located east of the roadway.	Planning stages

Source: Office of Campus Planning & Design, updated April 2008.

NOTE: ASF = Assignable Square Footage. The square footage (ASF) of parking and residential square footage is not monitored under the requirements of the 1990 LRDP.

In addition to the known projects listed above, the Campus is currently undergoing a major LRDP update. The 2008 Draft LRDP and Draft EIR were issued for public review in March 2008 (UCSB 2008a and 2008b). The LRDP update includes the addition of 1.8 million asf of academic and support space between 2008 and 2025 to serve an additional enrollment of 5,000 students, or a total of 25,000 students. The update also includes: (1) 5,443 additional student bed spaces and 2,331 new units of housing for student, faculty, and staff; (2) new recreational fields; (3) improvements to roads, bicycle, and pedestrian infrastructure; and (4) new parking. Proposed growth contemplated by the 2008 Draft LRDP and Draft EIR is included in the cumulative analysis of this document, where relevant.

Figure 1.4-1. Regional Setting

OSEB Project
EA/IS/MND

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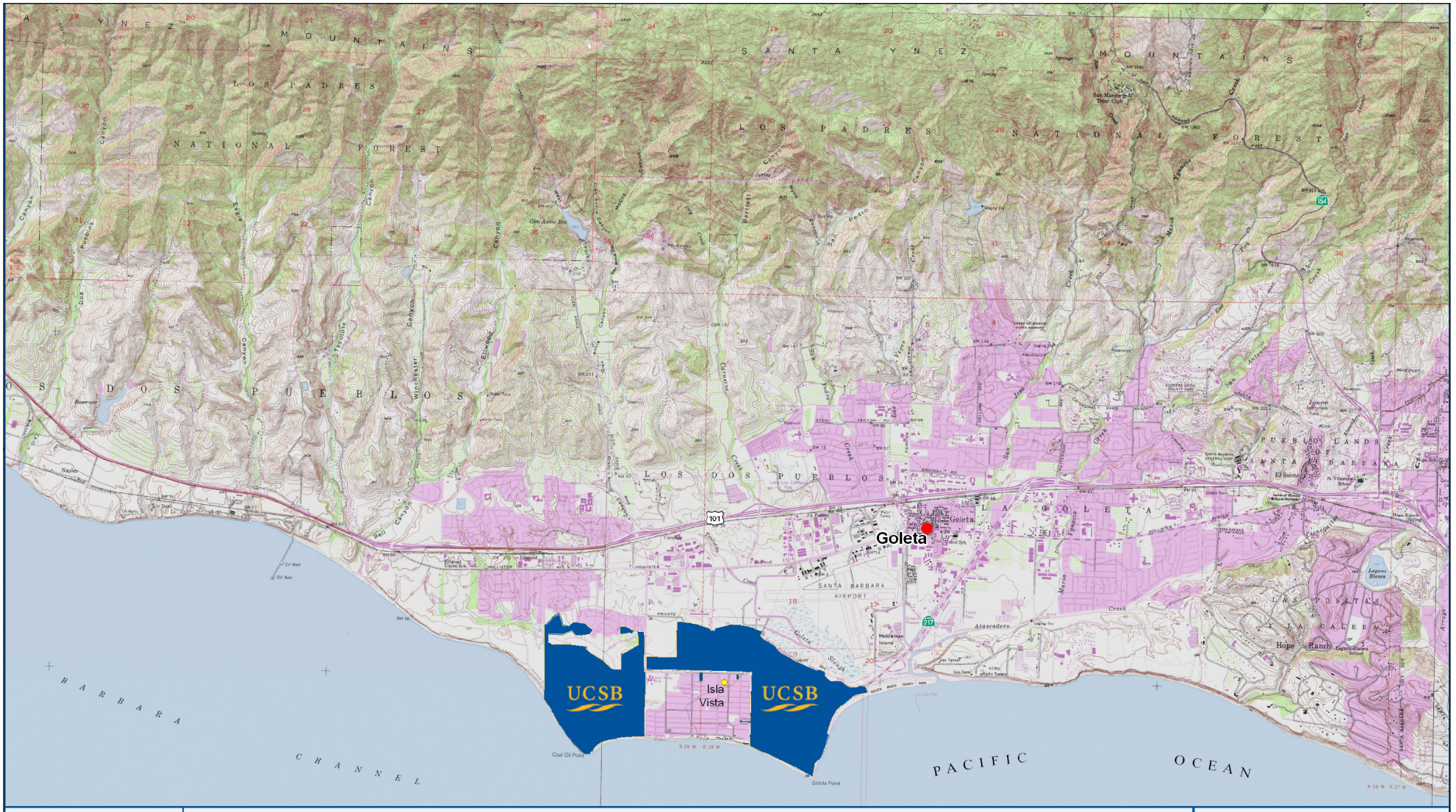

Figure 1.4-2. Local Setting

Map Source:
Local Setting map provided by the University of California, Santa Barbara (UCSB).

OSEB Project
EA/IS/MND

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Data Source:
1-foot resolution aerial flown June, 2006. Aerial provided by the University of California, Santa Barbara (UCSB).

Figure 1.4-3. Project Vicinity and Surrounding Uses

OSEB Project
EA/IS/MND

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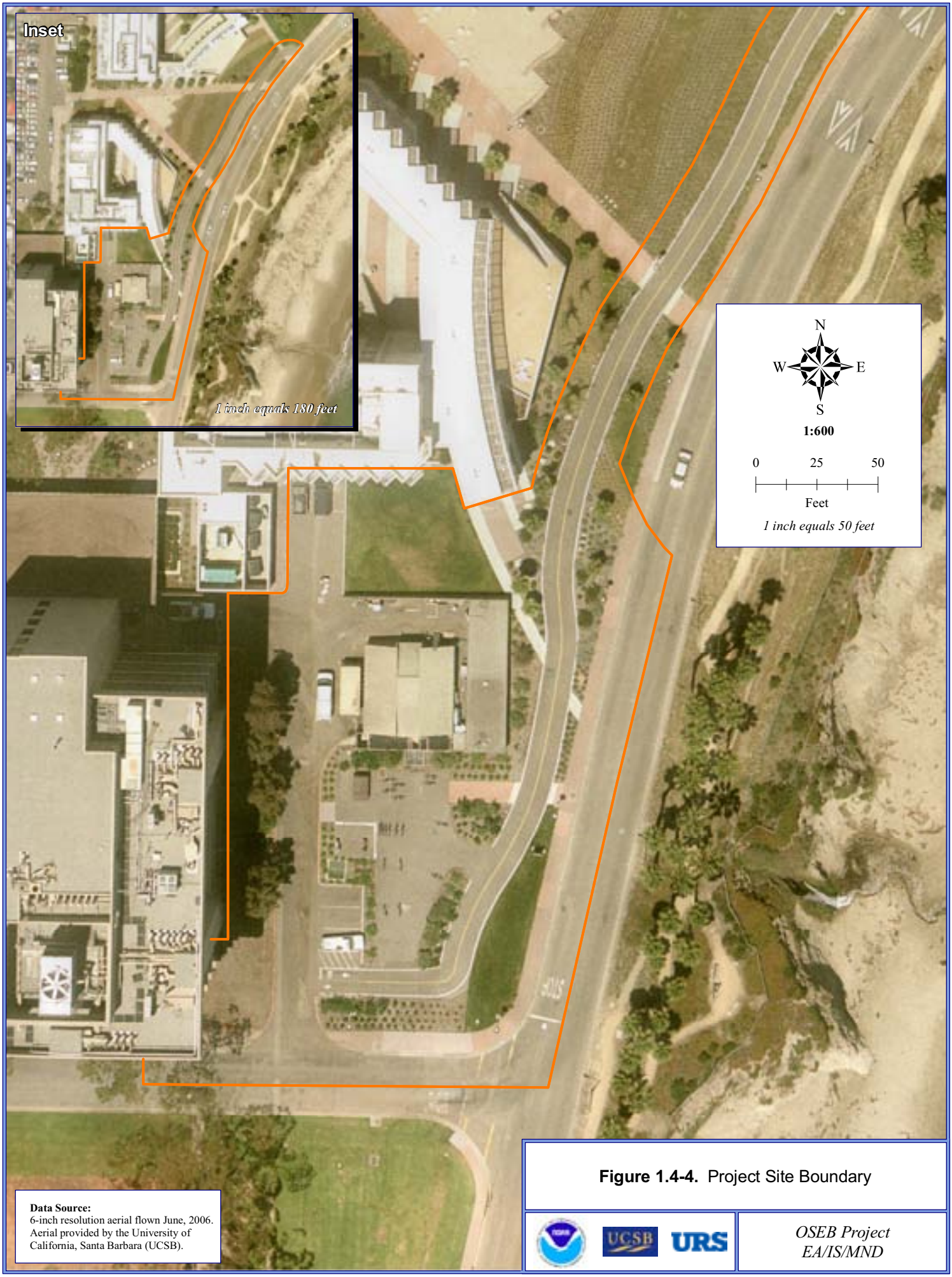

Figure 1.4-4. Project Site Boundary

UCSB URS

OSEB Project
EA/IS/MND

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2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The proposed project would be located on the eastern edge of the Main Campus accessed via Lagoon Road, UCen Road, and a service road off of UCen Road (**Figure 1.4-3**).

2.2 BUILDING CHARACTERISTICS

The OSEB would be a 31-foot high, 2-story 9,730 asf (15,284 gsf) facility that is composed of two building wings. The OCTOS building wing will provide for 5,610 asf to house MSI's OceansAlive! and other OCTOS programs, including specialized joint-use facilities (i.e., Seawater Center, Virtual Theater, and Classroom-Laboratory). The CINMS building wing will provide 4,120 asf of space to house CINMS headquarters. The main entrance to the facility will be via a shared first floor courtyard on the east side of the facility with building wing entrances facing each other. There will also be a balcony on the second floor that will provide access between the two building wings. The OCTOS and CINMS building wings of the OSEB are further described below.

2.2.1 OCTOS Building Wing

The OCTOS building wing of the OSEB will consist primarily of three highly specialized facilities, which will account for more than 80 percent of the available building space. These facilities will include the Seawater Center, Virtual Theater, and Laboratory-Classroom (see further description below), which will be the core facilities of the joint OCTOS and CINMS education and outreach programs. The OCTOS building wing will also accommodate a lobby, manager's office, docent break room, storage, and restrooms. A site plan and a conceptual elevation from the east side of the building are shown in **Figures 2.2-1 and 2.2-2**.

The OCTOS building wing will not result in the addition of new faculty, staff, or UCSB students. The OCTOS program manager will relocate to the building from a temporary trailer located on campus, which will not be backfilled and will eventually be removed. The only other staff that support the program are graduate student volunteers that are otherwise already on campus and enrolled in university programs. However, each of the three specialized facilities identified above will accommodate 30-35 program participants, enabling groups of 90 K-12 students to rotate through the facility twice a day, 4-days per week during the typical academic year schedule (Simon 2008). The facility may also be open on the weekends for other groups and/or the general public. This would allow OCTOS to serve upwards of 37,000 visitors annually, which would result in a net increase of approximately 22,000 visitors over the 15,000 visitors currently served per year (Simon 2008).

Seawater Center

Encompassing 2,000 asf of the first floor in the OCTOS building wing, the Seawater Center is the largest component of the OSEB facility program. It is comprised of wet and dry exhibits and associated support space. The center has a 70-person occupancy, which is divided equally between the wet and dry exhibits.

As envisioned, the wet exhibits consist of large water tanks used to recreate and simulate select marine environments, such as reefs and sub-tidal and inter-tidal habitats, which will support the living plants and animals that are used in the program. The dry exhibits or galleries are programmed to accommodate large models, sculptures and interactive computer and digital video projections that will stimulate the senses and express the educational messages such as marine ecology, climatology, biology, preservation, conservation to name a few. As proposed, the Seawater Center utility infrastructure will be flexibly designed to ensure the appropriate response to changes in educational programming and technology.

Virtual Theater

The 1,260 asf, 35-student capacity Virtual Theater is envisioned as a state-of-the-art facility designed to accommodate special format video programming developed to "immerse" viewers into the program subject matter. This facility will accommodate roughly half of the second floor of the OCTOS wing. The theater's technological capabilities will also accommodate live audio-visual telepresence programming via digital cameras from remote locations around the world. The theater is also programmed to accommodate typical educational presentation and instructional formats.

Classroom – Laboratory

The 980 asf, 35-student capacity Classroom – Laboratory facility is programmed for hands-on education involving a broad curriculum that uses computer and video technology, and fresh and saltwater utilities for instruction and demonstration. The laboratory will accommodate a variety of bench and furniture systems configurations. This facility will accommodate the other half of the second floor of the OCTOS building wing.

2.2.2 CINMS Headquarters Building Wing

The CINMS Headquarters building wing will consist of office type and related space. The building wing will provide for open and private offices, meeting and conference rooms, office administration, library and file areas, storage, a kitchenette, and restrooms. A site plan and a conceptual elevation from the east side of the building wing are shown in **Figures 2.2-1 and 2.2-2**.

There will be approximately 26 CINMS and other NOAA occupants in the CINMS Headquarters building wing. All of these occupants will be new to the UCSB campus and will be relocated from the existing CINMS Headquarters at the Waterfront Center building located at the Santa Barbara Harbor and in leased office space located in the City of Santa Barbara. Non-administrative activities will remain at the Santa Barbara Harbor (vessel home porting and operations) and at other locations (e.g., Ventura harbor).

2.2.3 Project Design Features

This project would implement emission reduction strategies through compliance with the UC Policy on Sustainable Practices and guidelines for its implementation (UCOP 2007). In accordance with this policy, the project will outperform the required provisions of the California Energy Code (Title 24) energy-efficient standards by at least 20 percent and will achieve a standard equivalent to a LEEDTM "Silver" rating or higher. LEED certification is the recognized standard for measuring building

sustainability.1 The OSEB project is currently planned to achieve a rating of "Gold" or better, which is demonstrated by the LEEDTM New Construction v2.2 Scorecard for the project (Stantec Consulting 2007). Other design features incorporated into the project to reduce emissions include:

- Short- and long-term bike parking to be located on southwestern corner of the site;
- Proximity of project to bike network on the campus;
- Proximity of project to pedestrian network on the campus;
- End of trip facilities (e.g., shower and changing rooms);
- New bus turnout and drop-off/pick-up area for school buses on Lagoon Road fronting the site;
- Minimal parking provided for service and emergency vehicle access only;
- No on-site or adjacent street parking for building occupants and visitors;
- Increasing the use of shade trees on the site;
- Green building materials;
- Operable windows and skylights to provide for natural ventilation and lighting where possible;
- Low-energy cooling, including the use of seawater to cool ambient temperatures; and
- Low-water use appliances and landscaping.

2.3 OTHER IMPROVEMENTS

The OSEB will be served by existing underground utilities and services (i.e., water, sewer, gas, storm drains, and electrical conduits) on the site, which are considered adequate to serve the project. However, existing utility lines under the building footprint would be either abandoned or relocated within the project site boundary to allow for the placement of the building foundation. No capacity improvements to any of the existing utility systems would be required to serve the project.

The proposed facility would also be provided with seawater to serve the Seawater Center and other facilities in the OCTOS building wing and to provide for low-energy cooling throughout the facility. The facility will be connected to the existing seawater system that serves other buildings on the Main Campus, including the adjacent Bio-II building and MSB. In fact, seawater usage for the proposed OSEB was accounted for during the design of the MSB and seawater lines where stubbed from the south side of that building for the proposed OSEB project. The seawater intake for the campus's seawater system is located off-shore with the pump station at Campus Point. The seawater discharge is located on the bluff immediately east of the proposed project site. Seawater will continue to be discharged from this discharge point until the Lagoon Road Storm Drain Project is planned and implemented, which is expected to direct used seawater to the Campus Lagoon. Based on currently proposed uses, the project would not: (1) exceed the pumping capacity of the seawater system, (2) require an increase in seawater intake currently pumped and delivered to the Bio-II Building and MSB, or (3) result in a change in the

[1] The LEED rating system offers four certification levels for new construction (Certified, Silver, Gold and Platinum) that correspond to the number of credits accrued in five green design categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources and indoor environmental quality.

volume or composition of seawater discharged to the ocean (Aronson 2008). See Section 5.10 for additional information.

Wastewater from the new facility will be from sinks and restrooms. There will be a staff kitchen and 6 new restrooms, containing 7 toilets, 1 urinal, and 1 shower, installed in the building. A new 100 MBH (thousand BTUs per hour) condensing boiler will also be installed in the OCTOS building wing to provide in floor radiant heating and hot water.

The existing service road will be moved west approximately 10 feet to allow adequate space for the building footprint, but will maintain its approximate configuration. Service vehicle parking will be relocated to Parking Lot #1 located northwest of the project site. The existing bike path that crosses the site will be removed with the project to better serve the campus bike population by avoiding pedestrian conflicts that could occur with the project. This element of the project includes the removal of the path between the OSEB project site on the south and the Bren Building on the north. A recently constructed bike path just north of the Bren building will provide separated bike access from Lagoon Road into the interior of the Main Campus, linking to the campus bicycle network. Lagoon Road and UCen Road will continue to provide shared bike access to the project site and vicinity. The existing improved bicycle parking area will be relocated to the southwestern corner of the site, just south of the Bio-II building. It will provide for both short- and long-term bike parking.

Additionally, a new bus turnout and drop-off/pick-up area for school buses will be located on Lagoon Road fronting the project site to support the OCTOS programs. Up to 6 buses per day would be expected during off-peak hours to serve up to 180 K-12 students with 3 buses mid-morning and 3 buses mid-afternoon. Once buses drop-off or pick-up they will leave and park at Parking Lot #38, or leave the campus entirely. No bus parking will be provided for on or adjacent to the proposed project site.

New landscaping will be installed with the project to include primarily mass planting of ornamental grass with small to medium sized trees (e.g., Island Oak, Ironwood, and Catalina Cherry). Small pockets of display planting will also be installed to display native plants of the Channel Islands. New planting will be low maintenance and reclaimed water will be used for irrigation.

2.4 CONSTRUCTION-PHASE REQUIREMENTS

The proposed project is scheduled to commence in February 2009 and be complete in September 2010, taking approximately a year and a half. It is expected that all construction staging activities would be conducted within the boundaries of the project site, including the location of a temporary trailer to house the contractor and staff during construction. *Prior to initiating construction activities on the majority of the site, the new bicycle parking area located south of the Bio-II building will be constructed. Once it's complete, bike racks and lockers will be installed in this new parking area.* The initial tasks of construction *on the remainder of the site* will be demolition activities, foundation excavation, steel erection, and concrete work. Demolition would include removing the existing cinder block structures, concrete, and asphalt within the project site limit. Existing ornamental landscaped areas would be cleared and grubbed and the 7 Eucalyptus trees would be removed. The existing palm trees on the site will be

retained. ~~The existing bike racks and lockers would be removed and stored for use at the improved bicycle parking area.~~

During construction, the bike path on the site will be closed and removed and bicycle traffic will be directed *via new signage* to the existing bicycle path adjacent to Lagoon Road, crossing the road at the Bren Building and into campus along a recently completed bike path that links to the campus bicycle network. *This signage will also inform bicyclists that access is provided along the Class III bike routes along Lagoon Road and UCen Road*. The existing service road on the site will be temporarily closed during construction and service vehicles will be directed to Parking Lot #1 north of the Bio-II building.

In accordance with the geotechnical engineering report and update report for the project, about the top 3.5 feet of soil under the building foundation would be removed, conditioned, returned to the exposed subgrade, and compacted in place (Fugro 2006 and Fugro 2008). The foundation will be a 14-inch deep concrete mat foundation with up to about 26-inch deep perimeter footings (EHDD 2008). Additionally, cast-in-drill-hole piers (drilled piers) will be founded in the underlying Sisquoc Formation to approximately 28 feet deep to support the large kelp tank. Grading and excavation would take approximately 4 weeks. Erosion control methods include the use of haybales and filter fabric fences placed around the project site limit. The fences would be cleared of debris after rain events. The project area would be re-landscaped with ornamental landscaping, as described above, when construction is complete.

2.5 LRDP AMENDMENT

As discussed in Section 1.6, the proposed project would require a minor 1990 LRDP Amendment. The LRDP amendment consists of modifying the boundary of potential building location 25 so that it encompasses the proposed OSEB project site. This change is shown on revised 1990 LRDP Figure 16 (**Figure 2.5-1**). *Additionally, LRDP Figures 15 and 23, which show the bicycle route network on the UCSB campus, would also need to be modified to illustrate the removal of the separated path between the OSEB project site on the south and the Bren Building on the north. This change is shown on revised 1990 LRDP Figure 23 (**Figure 5.17-2**), which is provided in Section 5.17, Transportation/Traffic. Corresponding revisions would also be made on 1990* LRDP Figure 15.

It should be noted that the proposed project is consistent with the 2008 Draft LRDP (UCSB 2008a), which is pending final revisions and approval by The Regents and the California Coastal Commission. Specifically, the proposed project is consistent with the 2008 Draft LRDP Figure D.3, Proposed Building Sites.

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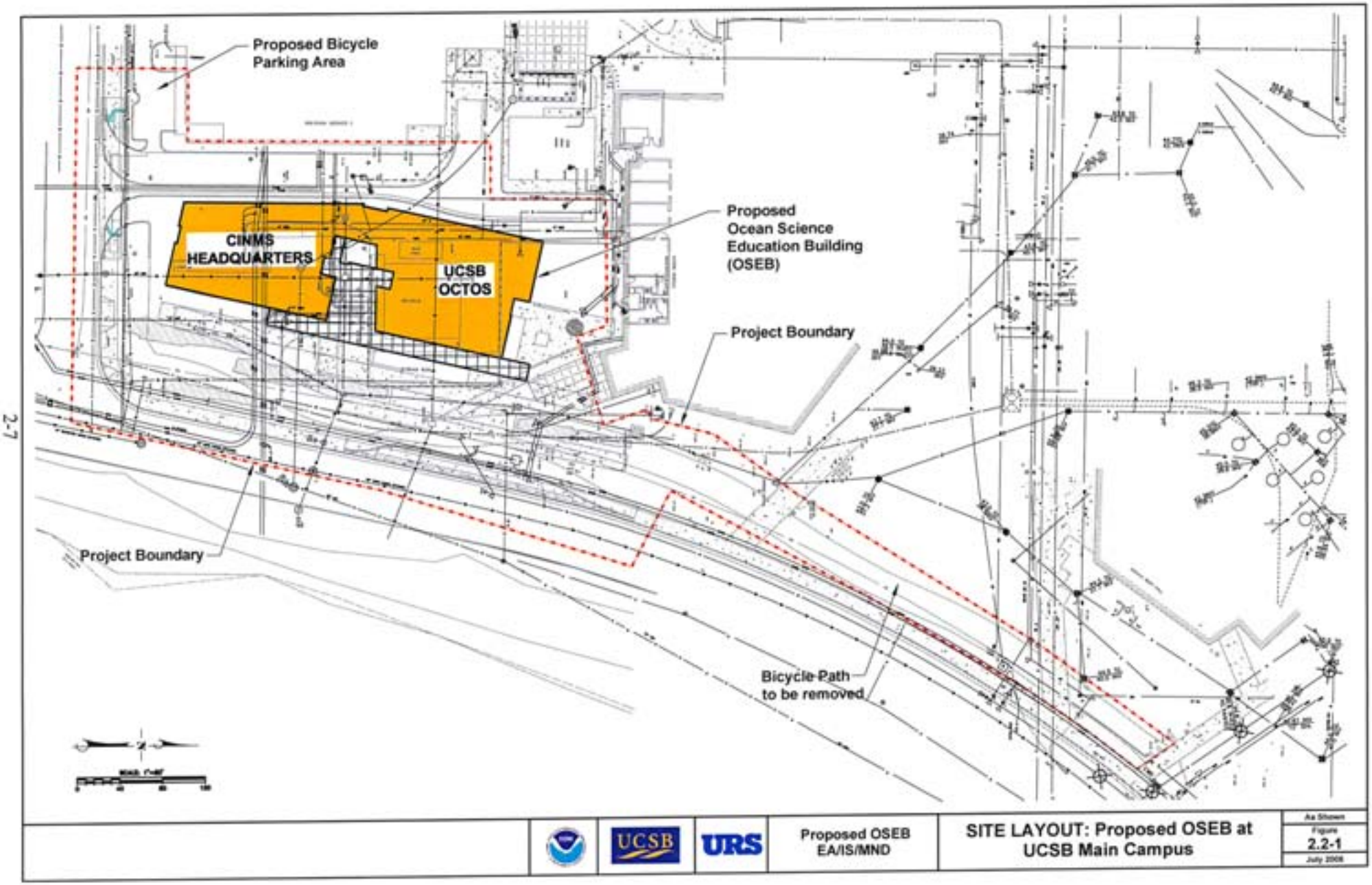
Proposed Bicycle Parking Area
CINMS HEADQUARTERS
UCSB OCTOS
Proposed Ocean Science Education Building (OSEB)
Project Boundary
Project Boundary
Bicycle Path to be removed
Proposed OSEB EA/IS/MND
SITE LAYOUT: Proposed OSEB at UCSB Main Campus
As Shown
Figure
2.2-1
July 2008

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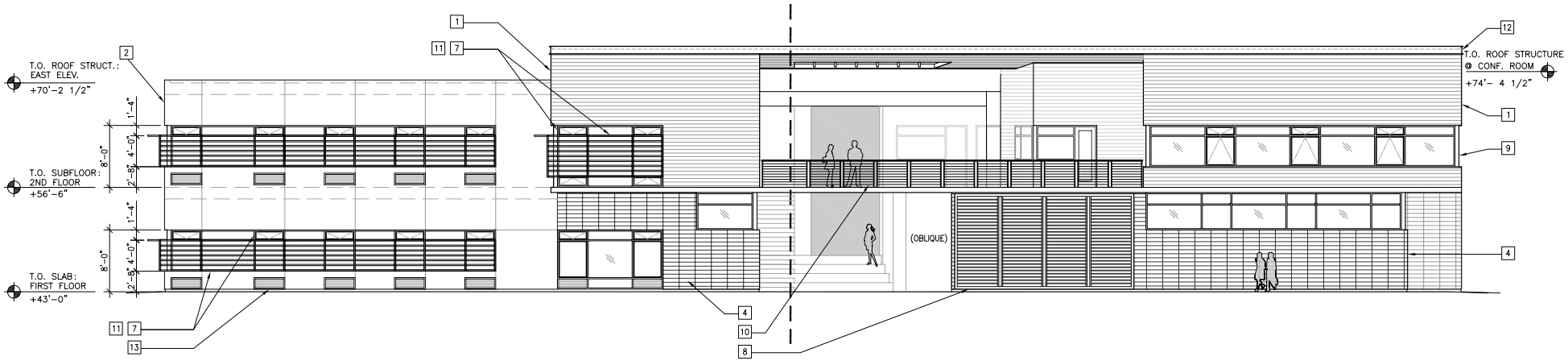

1 A3.01 EAST ELEVATION
1/8"=1'-0"

Data Source:
EHDD
Esherick Homsey Dodge & Davis

Figure 2.2-2. Site Plan Elevation Drawing

Proposed OSEB EA/IS/MND

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Figure 2.5-1. LRDP Figure 16 Potential Building Locations

Map Source:
LRDP Figure 16 provided by the University of California, Santa Barbara (UCSB).

OSEB Project
EA/IS/MND

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3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Descriptions of project-specific and cumulative impacts that have the potential to be significant, or that have been determined to be less than significant, are provided in the narrative in section 6.0 of this Initial Study.

The evaluation of potential environmental impacts determined that the proposed project would not result in environmental impacts regarding the issue areas that are listed below and that are denoted with a "*". Environmental impacts to the issue areas that are denoted by a "•" were determined to be less than significant. Environmental impacts regarding issue areas that are denoted with a "✓"can be reduced to a less than significant level with the implementation of mitigation measures are that are identified by this Initial Study. The proposed project would not result in any "Potentially Significant Impacts."

•	Aesthetics	*	Agriculture Resources	✓	Air Quality
✓	Biological Resources	✓	Cultural Resources	✓	Geology/Soils/Geotechnical
•	Hazards & Hazardous Materials	✓	Hydrology/Water Quality	*	Land Use/Planning
*	Mineral Resources	✓	Noise	*	Population/Housing
*	Public Services	*	Recreation	•	Transportation/Traffic
•	Utilities/Service Systems	✓	Mandatory Findings of Significance		

* No impact
• Less than significant impact
✓ Less than significant with mitigation incorporated

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4.0 ENVIRONMENTAL DETERMINATION

On the basis of the initial evaluation that follows:

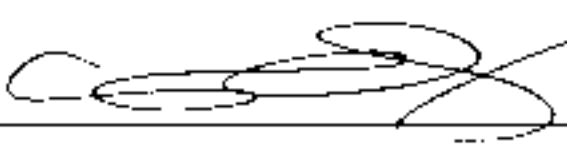
____ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

✓ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

____ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

____ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. A TIERED ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

____ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental document is required. FINDINGS consistent with this determination will be prepared.

Signature  Date Sept. 18, 08

Shari Hammond Shari Hammond University of California, Santa Barbara

Printed Name For

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5.0 EVALUATION OF ENVIRONMENTAL IMPACTS

5.1 GENERAL INSTRUCTIONS

A. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

B. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by information sources cited by the lead agency. (See "No impact" portion of Response Column Heading Definition section below.)

C. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

D. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

E. The explanation of each issue should identify:
   1. The basis/rationale for the stated significance determination; and
   2. The mitigation measure identified, if any, to reduce the impact to less than significant.

F. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

5.2 RESPONSE COLUMN HEADING DEFINITIONS

A. Potentially Significant Impact is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

B. Less than Significant with Mitigation Incorporated applies where the implementation of mitigation measures would reduce an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measure(s), and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

C. Less Than Significant Impact applies where the project creates no significant impacts, only Less than Significant impacts.

D. No Impact applies where a project does not create an impact in that category. "No Impact" answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project specific screening analysis).

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.3 AESTHETICS				
a) Have a substantial adverse effect on a scenic vista?	___	___	___	✓
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	___	___	✓	___
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	___	___	___	✓
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	___	___	___	✓

5.3.1 Setting

The visual resources of the proposed project site consist of natural and man-made features that can be seen from the proposed project site at any given viewing location. The project site is currently occupied by an existing low-lying structure that houses seawater facilities, storage facilities, service vehicle access and parking lot, motorcycle parking, a bicycle path and bicycle parking area, and landscaping. As the project site is located along the eastern edge of the Main Campus, views towards the Pacific Ocean and coastal bluff are available from the site to the east and southeast. Views from the site to the north, west, and south are primarily of buildings and landscape areas. Views within the interior of the Main Campus to the west of the site are primarily of buildings and landscaped areas as well, however, several narrow view corridors to the Pacific Ocean and the Santa Ynez Mountains are available as identified in Figure 49 of the 1990 LRDP and Figure C.2 of the 2008 Draft LRDP. In particular, a view corridor that provides views towards the ocean is identified along UCen Road located adjacent to the project site. Lagoon Road is also identified as providing views towards the ocean. Additionally, the pedestrian path along the coastal bluff in this part of the campus provides intervening views of both the ocean and the mountains (UCSB 2008b). However, mountain views from the project site are blocked by adjacent buildings.

The proposed project is located in the 45-foot height limit, as shown in Figure 19 of the 1990 LRDP and Figure D.4 of the 2008 Draft LRDP. The Bio-II building to the west and the MSB to the north are within the 65-foot height limit, but Bio-II was constructed at approximately 105 feet before the LRDP height limits were established. The Anacapa Residents Hall to the south across UCen Road is within the 45-foot height limit. Existing buildings within the Main Campus are mostly between 35 and 65 feet in height (UCSB 2008b). The OSEB will be approximately 31-feet high, well within the 45-foot height limit of the 1990 LRDP and 2008 Draft LRDP.

5.3.2 Checklist Responses

a. Substantial adverse effect on a scenic vista. The 2-story building would be 31 feet high, much lower in stature than the height of the existing adjacent Bio-II building to the west, the MSB to the north, and the residence halls to the south. As the proposed building would not exceed the heights of the surrounding buildings it would not block scenic views of the mountains or ocean from any public vantage points. Additionally, the building would not interfere with coastal views identified in Figure 49 of the 1990 LRDP and Figure C.2 of the 2008 Draft LRDP, as the proposed building would not interfere with ocean views along the UCen Road or Lagoon Road view corridors. It would also not interfere with views of the ocean or mountains from the coastal bluff trail located east of the site. Further, the building would be setback sufficiently far to ensure that it does not infringe upon public views from the beach. There would be *no impact* on scenic vistas.

b. Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. The group of 3, 24- to 26-inch multi-prong Eucalyptus trees and 1, 10-inch Eucalyptus tree growing along the western edge of the site would be removed from the project site. Additionally, the 3, 12- to 14-inch Eucalyptus trees on the southwestern corner of the site will also be removed. These trees do not constitute a "significant stand of trees," as they are not identified as a "coastal tree mass" in LRDP Figure 49, are not native, and do not pre-date the University. The trees were originally planted as landscaping during the development of this part of Campus.

The removal of these trees would not constitute a potentially significant adverse impact from a scenic resource perspective. While these trees would be removed to allow for construction they would be replaced with the planting of 4 new trees along the western edge of the site, in a similar location and pattern. Further, the landscaping proposed for the site would result in the planting of many other trees (approximately 9 Catalina Cherry, 6 ironwood trees, and 1 Island Oak). These new trees would visually offset the loss of the Eucalyptus trees.

No rock outcroppings, historic buildings, or other scenic resources are present onsite. In addition, the proposed project site is not located within a state scenic highway viewshed. Impacts would be *less than significant*.

c. Substantial degradation to the existing visual character or quality of the project site and its surroundings. The proposed building would be consistent with the existing visual character of the project site and its surroundings. The site is surrounded by development on three sides, including academic buildings to the north and west, and residential buildings to the south. The proposed building would be lower in stature than the surrounding buildings and would not attract disproportionate visual attention or dominate the visual setting. There would be *no impact*.

d. Create new sources of light or glare. A minimal amount of security lighting would be installed on the new building and it would be in conformance with existing surrounding lighting. There would be *no impact* from lighting.

5.3.3 Mitigation Measures

No mitigation measures are required.

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

5.4.1 Setting

There are no agricultural resources on the Main Campus or in off-campus areas that are located in the vicinity of the proposed project site. No prime or unique farmland, farmland of statewide importance, or Williamson Act contract exists on the project site. The Campus, as part of the University of California, is not subject to local zoning regulation.

5.4.2 Checklist Responses

a-c. Potential impacts to agricultural resources. There are no agricultural operations located on or near the project site, and it is not reasonably foreseeable that agricultural operations would be established near the project site in the future. No prime or unique farmland, farmland of statewide importance, or Williamson Act contract exists on the project site. The campus, as part of the University of California, is not subject to local zoning regulation. Therefore, there would be *no impacts* to agricultural resources.

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

5.5.1 Setting

Background

The South Central Coast Air Basin is in attainment for the federal air quality standards for most criteria pollutants [i.e. ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulates less than 10 microns in diameter (PM_{10}), lead, sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles] (County of Santa Barbara 2007a). However, there is not yet enough data to determine the attainment status for the federal standard for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), although it's likely that the County will be in attainment for the federal $PM_{2.5}$ standard (County of

Santa Barbara 2008). It should be noted that the U.S. Environmental Protection Agency (USEPA) replaced the federal one-hour ozone standard with an eight-hour standard on June 15 of 2005, as it is more protective of public health and more stringent than the federal one-hour standard (County of Santa Barbara 2007). The County is in attainment with the new eight-hour ozone standard.

On April 17, 2006, the California Air Resources Board also established a new eight-hour ozone standard in addition to the one-hour standard, as it is more protective of children's health (County of Santa Barbara 2007). The County has not achieved compliance with the new state eight-hour ozone standard or the standard for particulate matter less than ten microns in diameter (PM_{10}), but recent data shows that the County has attained the state one-hour ozone standard (County of Santa Barbara 2007). Additionally, as for the federal standard there is not yet enough data to determine the attainment status for the state $PM_{2.5}$ standard (County of Santa Barbara 2008a).

Major sources of PM_{10} emission in the County include quarries, grading, demolition, agricultural tilling, road dust and vehicle exhaust ($PM_{2.5}$). Ozone is formed as a result of a chemical reaction between reactive organic compounds (ROC) and oxides of nitrogen (NO_x). In Santa Barbara County, the largest contributor of ROC emissions is from natural sources (e.g., natural vegetation, naturally occurring oil seeps) and on-road motor vehicles. The largest contributor of NO_x is on-road motor vehicles and other mobile sources, such as trains and off-road equipment (County of Santa Barbara 2007).

The Clean Air Plan (CAP) for Santa Barbara County has been prepared and is updated every three years by the Santa Barbara County Air Pollution Control District (APCD), as required by the California Clean Air Act. The CAP, which was prepared in 1994 in response to the requirements of the California Clean Air Act and the Federal Clean Air Act, has been adopted as part of the State Implementation Plan. The 2007 CAP is currently the most recent Clean Air Plan for the County adopted by the Air Pollution Control Board. The 2007 CAP provides a three-year update to the APCD's prior 2004 CAP. The 2007 CAP is similar to the 2004 CAP with the addition of updated local air quality information, updated baseline emission inventory, and updated future year emission estimates through 2020. The 2007 Plan also provides a maintenance plan for the new federal 8-hour ozone standard and provides for expeditious attainment of the state 1-hour ozone standard (County of Santa Barbara 2007).

There is growing concern about greenhouse gas emissions (GHG) and recognition of their significant adverse impacts on the world's climate and on our environment. In California, the passage of the Global Warming Solutions Act of 2006 (AB 32) recognizes the serious threat to the "economic wellbeing, public health, natural resources, and the environment of California" resulting from global warming. AB 32 mandates significant reductions in greenhouse gases (GHG); passage of that law has highlighted the need to consider the impacts of GHG emissions from projects that fall under the jurisdiction of the CEQA (CAPCOA 2008).

Standards of Significance

Based on criteria that have been adopted by the APCD Board and presented in *Scope and Content of Air Quality Sections in Environmental Documents, Updated June, 2008* (County of Santa Barbara 2008b), a proposed project will not have a significant air quality effect on the environment, if the *operations* of the project will:

1. Emit (from all project sources, both stationary and mobile) less than 240 pounds per day of ROC and NO_x, and 80 pounds per day for PM_{10}. There is no daily operational threshold for CO, which is an attainment pollutant; or

2. Emit less than 25 pounds per day of NO_x or ROC from motor vehicle trips only; or
3. Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); or
4. Not exceed the SBCAPCD health risk public notification thresholds adopted by the SBCAPCD Board as outlined in Section 4.3.5 of *Scope and Content of Air Quality Sections in Environmental Documents, Updated June, 2008;* or
5. Be consistent with latest adopted federal and state air quality plans for Santa Barbara County.

Further, if a project's emissions from traffic sources of NO_x or ROC exceed the long-term thresholds above, the project is also considered to have a significant cumulative air quality impact (County of Santa Barbara 2008b).

Quantitative thresholds of significance are not currently in place for short-term construction-related emissions. However, the SBCAPCD uses 25 tons per year for ROG or NO_x as a guideline for determining the significance of construction impacts. No quantitative threshold has been established by the SBCAPCD for short-term, construction related PM_{10}. However, the SBCAPCD recommends that construction-related NO_x, ROC, PM_{10}, and $PM_{2.5}$ emissions from diesel and gasoline powered equipment, paving and other activities, be quantified (County of Santa Barbara 2008b).

The only stationary source that would result from the proposed project is a new boiler. If a boiler has a rated heat input from 75,000 British thermal units (Btu) per hour (hr) to 2 million Btu (MMBtu)/hr it is subject to Rule 360 emissions standards. If a boiler has a rated heat input from 2 MMBtu/hr to 5 MMBtu/hr it is subject to Rule 361 emissions standards. Likewise, boilers rated at 5 MMBtu/hr or greater are subject to Rule 342 emissions standards. Boilers in the above categories require permits from the SBCAPCD (Jammalamadaka 2008). If multiple boilers are used for a combined function and the aggregate heat input is greater than 2 MMBtu/hr, a permit is also required (Jammalamadaka 2008). An example of a combined function would be if multiple boilers were connected to the same steam header or hot water header.

The SBCAPCD indicates that global climate change is a cumulative impact and that a project contributes to this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases. There are currently no published thresholds for measuring the significance of a project's cumulative contribution to global climate change (County of Santa Barbara 2008b).

Relevant Project Characteristics

Construction of the building would take place over approximately one and a half years. Grading and excavation would occur for approximately 4 weeks. Standard construction equipment and vehicles would be used. Site preparation would include: (1) the placement of temporary construction fencing around the project site; (2) demolition of the existing cinder block structures, concrete, and asphalt; (3) the removal of trees and ornamental vegetation; (4) site grading and excavation; and (5) trenching associated with the extension/relocation of utility lines. The vegetation removed from the site would be hauled to an on-site collection site, mulched, and removed from the campus by a green waste hauler (Marborg Inc.) for mulching. Since the project site is relatively flat, there would be minimal grading on the site and therefore very minimal cut and fill, which would be related primarily to the placement of the mat foundation. The project area would be landscaped after construction. The building would result in the addition of one new 100,000 Btu/hr boiler. However, no new emergency generators would be installed with the project.

Laboratory classroom space in the building will include the use of tabletop computers, projectors, and sundry electronic apparatus. No hazardous chemicals would be used that would require the installation of fume hoods. There would be 1 UCSB staff and 26 CINMS and NOAA staff permanently occupying the new building. The UCSB staff would come from an existing location on campus and the 26 CINMS and NOAA staff would be new to the UCSB campus, but would be relocated from the Santa Barbara Harbor and elsewhere in the area. Additionally, the educational programs that would be housed in the OCTOS building wing would allow the OCTOS program to serve upwards of 37,000 visitors annually, which would result in a net increase of approximately 22,000 visitors over the 15,000 visitors currently served per year. These visitors would arrive to campus primarily by bus.

5.5.2 Checklist Responses

a. Air quality plan consistency. Consistency with the CAP means that the stationary source and motor vehicle emissions associated with the project are accounted for in the CAP's emission growth assumptions. The emission estimates that are contained in the CAP for projects located on the UCSB campus are based on growth projections contained in the 1990 LRDP. Any amendment to the 1990 LRDP that would result in UCSB population growth above that forecasted by the 1990 LRDP, would be inconsistent with the CAP.

The 1990 LRDP was based on increasing enrollment to 20,000 students, and employment to 1,174 FTE faculty and 3,299 FTE staff. As of the 2007-08 academic year, campus enrollment reached 21,400 students, and an employment of 2,406 FTE faculty and 3,675 FTE staff. The campus has therefore reached the 1990 LRDP enrollment projections, and has exceeded faculty and staff projections (UCSB 2008b).

While the existing UCSB campus population exceeds the 1990 LRDP growth projections that were the basis of the CAP emission growth assumptions, the proposed project would not result in a net increase in UCSB students, faculty, or staff. Additionally, the CINMS and other NOAA staff would come from elsewhere in the region and would not constitute new population growth that has not already been accounted for elsewhere in the CAP growth assumptions. Further, emissions from the proposed project would not exceed the long-term thresholds identified above (see response to items b and c below). Therefore, the proposed project would be consistent with the Santa Barbara County CAP. There would be *no impact*.

b-c. Potential to exceed air quality standards or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment.

Short-Term Construction Impacts. Project-related construction operations, including the operation of equipment and the excavation of soil, would result in exhaust emissions and fugitive dust emissions, including PM_{10} and $PM_{2.5}$. Project-related construction activities that would result in the highest emission levels would be the excavation of soil for foundation preparation and infrastructure installation. The SBCAPCD has not established a threshold to determine when construction-related ozone precursor emissions result in a significant impact. However, the APCD uses 25 tons per year for ROG and NO_x as a guideline for determining the significance of construction impacts and further indicates that in the interest of public disclosure construction-related NO_x, ROC, PM_{10}, and $PM_{2.5}$ should be quantified (County of Santa Barbara 2008b). The URBEMIS 2007 (version 9.2.4) computer program was used to estimate these emissions. The results show that project construction activities would generate: 1.21 tons/year NO_x, 0.17 tons per year of ROC, 0.31 tons per year of PM_{10}, and 0.14 tons per year of $PM_{2.5}$. Levels of ROC and NO_x fall well below the recommended guideline for determining significance (25 tons per year).

Therefore, construction-related emissions of ozone precursors would be *less than significant*. See discussion below about Mitigation Measure AQ-4, which would further reduce this impact.

Fugitive dust has the potential to result in significant nuisance impacts and Santa Barbara County is a non-attainment area for state air quality standards for PM_{10}. Surrounding buildings (Bio-II and MSB) would be exposed to dust generated during construction of the proposed building. The SBCAPCD requires that discretionary projects implement dust control measures to minimize emissions of PM_{10} and to reduce the potential for dust-related nuisance impacts (County of Santa Barbara 2008b). Construction-related emissions of PM_{10} and $PM_{2.5}$ would be *less than significant with mitigation* with the implementation of standard mitigation measures (Mitigation Measures AQ-1 through AQ-4) for dust control. Mitigation Measure AQ-4 would also reduce emissions of NO_x from construction equipment exhaust.

Long-Term Operation Emissions. The proposed project would generate area source emissions from natural gas consumption from building space heating and stationary source emissions from the operation of a new 100,000 Btu/hr natural gas boiler. The proposed project would contribute regional emissions of criteria pollutants from mobile sources associated with the new school bus trips that would result from the project. The new building occupants would not contribute new regional emissions, as they would come from an existing building on the UCSB campus and from two existing buildings elsewhere in the region (e.g., the Santa Barbara Harbor), and therefore already live and drive in the region.

URBEMIS 2007 (version 9.2.4) was used to calculate area source emissions using defaults for the size of the project site and proposed building. Stationary emissions from the natural gas boiler were assumed equivalent to SBCAPCD Rule 360 emission factors.[2] Emissions from school buses traveling to and from the facility were calculated using EMFAC 2007 V2.3 emission factors for 2011.[3] The estimated unmitigated emissions from these sources for NO_x would be less than 2 pounds per day and less than 1 pound per day for ROC and PM_{10}. These emissions are all well below the SBCAPCD thresholds for both project and cumulative impacts. Therefore, long-term operation emissions of criteria pollutants would be *less than significant* and no mitigation measures would be required. Additionally, the new natural gas boiler will be subject to Rule 360 emissions standards and will require a permit from the SBCAPCD, which will ensure that emissions are controlled and minimized to the extent required.

Global Climate Change. As indicated above, there are currently no published thresholds for measuring the significance of a project's cumulative contribution to global climate change. However, as indicated in Chapter 2 of this IS/MND, the project would implement emission reduction strategies through compliance with the UC Policy on Sustainable Practices and guidelines for its implementation (UCOP 2007). In accordance with this policy, the project will outperform the required provisions of the California Energy Code (Title 24) energy-efficient standards by at least 20 percent and will achieve a standard equivalent to a LEED™ "Silver" rating or higher. LEED certification is the recognized standard for measuring building sustainability.[4] The OSEB project is currently planned to achieve a rating of "Gold" or better, which is demonstrated by the LEED™ New Construction v2.2 Scorecard for the project (Stantec Consulting 2007). Other design features incorporated into the project to reduce emissions include:

[2] The maximum hourly natural gas rate was assumed constant for 24 hours (a worst case day scenario).
[3] Assumptions include a speed of 35 mph, relative humidity of 40%, default fleet age and a combined distance of 90 miles. Additional mileage with the project is based on the addition of 3 net new round trips in the region of 30 miles each.
[4] The LEED rating system offers four certification levels for new construction (Certified, Silver, Gold and Platinum) that correspond to the number of credits accrued in five green design categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources and indoor environmental quality.

- Short- and long-term bike parking to be located on southwestern corner of the site;
- Proximity of project to bike network on the campus;
- Proximity of project to pedestrian network on the campus;
- End of trip facilities (e.g., shower and changing rooms);
- New bus turnout and drop-off/pick-up area for school buses on Lagoon Road fronting the site;
- Minimal parking provided for service and emergency vehicle access only;
- No on-site or adjacent street parking for building occupants and visitors;
- Increasing the use of shade trees on the site;
- Green building materials;
- Operable windows and skylights to provide for natural ventilation and lighting where possible;
- Low-energy cooling, including the use of seawater to cool ambient temperatures; and
- Low-water use appliances and landscaping.

Further, UCSB is implementing greenhouse gas emission reduction strategies campus wide through existing campus programs and compliance with the UC Policy on Sustainable Practices, the Draft 2007 Sustainability Plan, and State regulations pertaining to greenhouse gas emissions reduction (UCSB 2008b). These emission reduction practices would substantially lessen UCSB's contribution to global climate change (UCSB 2008b).

d. Potential to expose people to substantial pollutant concentrations. Thresholds adopted by the APCD state that a project would have a significant air quality impact if it were to cause a carbon monoxide "hot spot" where the California one-hour CO standard of 20 parts per million or the 8-hour CO standard of 9 parts per million is exceeded. This typically occurs at severely congested intersections or from particular types of land uses (e.g., drive through facilities). The proposed project would generate minimal traffic; therefore there is no potential to expose people to substantial CO concentrations. There would be *no impact* related to CO concentrations and no mitigation measures are required.

In addition to emissions of criteria air pollutants (see item b-c above, Long-Term Operation Emissions), the operation of the new natural gas boiler would result in emissions of toxic air contaminants (TACs). However, the recently released UCSB LRDP Draft EIR and associated Health Risk Assessment determined that the health risks from operation of the campus as a whole following buildout of the 2008 Draft LRDP, which includes the proposed OSEB project, would be less than significant (UCSB 2008b). This analysis accounted for all sources of TACs including natural gas boilers. Therefore, the impacts related to TAC emissions from the proposed project and from cumulative development would be *less than significant* and no mitigation measures would be required. Additionally, the new natural gas boiler will be subject to Rule 360 emissions standards and will require a permit from the SBCAPCD, which will ensure that emissions are controlled and minimized to the extent required.

e. Potential to result in objectionable odors. Operation of the proposed project would not result in the creation of objectionable odors. There would be *no impact* and no mitigation measures are required.

5.5.3 Mitigation Measures

The following mitigation measures would reduce impacts from dust generated during construction to less than significant. Mitigation Measure AQ-4 would also further reduce the less-than-significant impact related to construction-related emissions of ozone precursors.

AQ-1: During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

AQ-2: During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the later morning and after work is completed for the day and whenever wind exceeds 15 miles per hour.

AQ-3: Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation.

AQ-4:

- ~~Heavy duty diesel powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) should be utilized whenever possible;~~

- *All portable construction equipment shall be registered with the state's portable equipment registration program OR permitted by the District by September 18, 2008.*

- *Diesel construction equipment meeting the California Air Resources Board's Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting Tier 2 or higher emission standards should be used to the maximum extent feasible.*

- The engine size of construction equipment shall be the minimum practical size;

- The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at one time;

- Construction equipment shall be maintained in tune per the manufacturer's specifications;

- Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines; and

- Catalytic converters shall be installed on gasoline-powered equipment, if feasible.

- *Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed on equipment operating on-site.*

- *Diesel powered equipment should be replaced by electric equipment whenever feasible.*

- *Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used whenever possible.*

- *Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.*

Plan Requirements: All requirements shall be shown on Construction Documents.

Timing: Condition shall be adhered to throughout all grading and construction periods.

MONITORING: UCSB Office of Campus Planning and Design shall ensure measures are on plans. Design and Construction Services inspectors shall spot check, and shall ensure compliance on-site. APCD inspectors shall respond to nuisance complaints.

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?	___	___	___	✓

5.6.1 Setting

Background

Based on surveys and analyses conducted for the 2008 LRDP Draft EIR there are no known sensitive species or habitats identified on the proposed project site, as shown in 2008 LRDP Draft EIR Figure 4.3-2. However, the presence of Eucalyptus and other ornamental trees suitable for nesting birds was identified throughout the four UCSB campuses (UCSB 2008b). As further described below, both Eucalyptus, palm, and other ornamental trees are present on the site.

Project Site Setting

The project site is located in an urban environment that is paved with asphalt and concrete and landscaped with ornamental vegetation. Landscaping includes 7 mature Eucalyptus trees (*Eucalyptus* sp.), 1 small cypress (*Cupressus* sp.), 1 small ornamental oak (*Quercus* sp.), 5 palm trees, various ornamental shrubs, and a manicured lawn. The landscaping was installed at the time of construction of the adjacent Bio-II building and on-site facilities (e.g., service and bicycle parking). There are no native plants, vegetation types, or wildlife habitats on the project site; however, landscaped shrubs and trees are suitable habitat for wildlife species adapted to urban area and frequent maintenance activities.

Mature eucalyptus, oak, cypress, and other tall trees on campus lands provide suitable roosting and nesting habitat for various bird species, including red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*), white-tailed kite (*Elanus leucurus*), great horned owl (*Bubo virginianus*), barn owl (*Tyto alba*), American crow (*Corvus brachyrhynchos*), and other species (UCSB 2008b). The eucalyptus, cypress, ornamental oak, and palm trees on-site are not native to the area, but may provide roosting and nesting habitat. Additionally, the dense ornamental shrubs on-site may provide marginal songbird nesting habitat. A site visit conducted during May 2008 by URS biologists did not reveal any active nesting sites.

The California Coastal Act defines environmentally sensitive habitat (ESH) areas as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development." There are no ESH areas at the proposed project location. The nearest ESH areas to the site are located east across Lagoon Road and include the habitats associated with the coastal bluff and beach.

5.6.2 Checklist Responses

a. Potential to result in adverse effects on plants or animals species of concern. There are no special-status species or suitable habitat for these species on the project site. Special-status plant species are unlikely to occur because native habitat was removed to install ornamental vegetation and the urban setting of the site greatly reduces the opportunity for native plant propagules to disperse on-site and thrive under current conditions. In addition, special-status plant species in the vicinity of the project site have habitat requirements not identified on this portion of the UCSB campus. Special-status species such as Coulter's saltbush (*Atriplex coulteri*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), southern tarplant (*Centromadia parryi* ssp. *australis*), Contra Costa goldfields (*Lasthenia conjugens*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), black-flowered figwort (*Scrophularia atrata*), and estuary seablite (*Suaeda esteroa*) are known to occur near the project area (California Department of Fish and Game [CDFG], California Natural Diversity Database [CNDDB] 2008), but are not expected to occur on-site.

Special-status animal species are not expected to occur for similar reasons as the plant species. Special-status species such as western snowy plover (*Charadrius alexandrinus nivosus*), Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), brown pelican (*Pelicanus occidentalis*), light-footed clapper rail (*Rallus longirostris levipes*), California least tern (*Sterna antillarum browni*), sandy beach tiger beetle (*Cicindela hirticollis gravida*), globosus dune beetle (*Coelus globosus*), mimic tryonia (*Tryonia imitator*), monarch butterfly (*Danaus plexippus*), and tidewater goby (*Eucyclogobius newberryi*) are known to occur on the UCSB campus, but not in the immediate vicinity of the project site (CDFG, CNDDB 2008). The fully protected white-tailed kite (*Elanus leucurus*) and other raptors were discussed in the 2008 LRDP Draft EIR as previously documented on the Storke, West, and North Campuses; however, they are not expected to occur on the project site due to the lack of suitable habitat. The existing on-site habitat, urban environment, and on-going maintenance significantly reduce the opportunity for special-status species to occupy the site. Special-status bird species may infrequently nest in the eucalyptus trees or ornamental shrubs and forage in nearby habitats. To avoid potential impacts to nesting special-status bird species during shrub and tree removal and to reduce potential impacts to *less than significant with mitigation*, Mitigation Measure BIO-1 shall be implemented.

b. Potential to result in adverse effects to riparian or other sensitive habitat. The proposed project site does not support riparian or other sensitive habitat. Construction or operation of the project would not result in any direct or indirect effects to ESH areas located across Lagoon Road. There would be *no impact*.

c. Potential to result in adverse effects to wetlands. The proposed project site does not support wetlands as defined by the California Coastal Commission or the United States Army Corps of Engineers, and no wetland resources are located adjacent to the proposed project site. There would be *no impact*.

d. Potential to result in adverse effects to migration corridors. The proposed project site is surrounded by development, including roadways, buildings, parking lots, bike paths, and ornamentally landscaped areas. Therefore, no local wildlife movement is expected through the proposed project area; however, common migratory bird species protected under the Migratory Bird Treaty Act (MBTA) and CDFG Code are likely to nest in the on-site shrubs and trees. A list of bird species under the MBTA can be found at the following site: http://www.fws.gov/migratorybirds/intrnltr/mbta/mbtandx.html. CDFG Code provides further protection to nesting birds. Therefore, to avoid potential impacts to nesting birds during tree removal and reduce potential impacts to *less than significant with mitigation*, Mitigation Measure BIO-1 will be implemented.

e. Conflict with applicable policies protecting biological resources. Construction of the proposed project would not conflict with biological resource protection policies in the LRDP (UCSB 1990b). There would be no native trees or vegetation removed, and no trees that pre-date the University removed. The proposed building would be setback approximately 100 feet from the nearest ESH areas to the site, which are located east across Lagoon Road and include the habitats associated with the coastal bluff and beach. Best management practices would be in place to prevent erosion and sediment transport off-site. There would be *no impact*.

f. Conflict with an adopted conservation plan. The proposed project site is not part of any habitat conservation plan, and development of the site would not adversely affect the conservation of any rare habitat, or threatened or endangered species. There would be *no impact*.

5.6.3 Mitigation Measures

BIO-1: Prior to the initiation of ground-disturbing activities and the removal of trees during the nesting season for sensitive birds (February 15 through August 31) a biological survey of the shrubs and trees shall be conducted by a qualified biologist within two weeks of construction to prevent impacts to nesting sensitive bird species. If active raptor nests or nests of any other birds protected by state or federal law are located, then protective fencing should be installed and all construction work must be conducted at least 200 feet from the nest, or greater, as determined by a qualified biologist in consultation with CDFG. If active nests are located and a tree or shrub is scheduled for removal or alteration, these activities must occur after the birds have fledged or between September 1 and January 31, whichever is later.

Plan Requirements: All requirements shall be shown in bid documents and on demolition and grading plans.

Timing: Condition shall be adhered to two weeks prior to any ground breaking activities. To avoid construction conflicts with nesting birds consideration should be given to removing on-site trees and shrubs slated for removal prior to the start of the nesting season for sensitive birds (February 15 through August 31).

MONITORING: UCSB Office of Campus Planning and Design shall ensure measures are in bid documents and on plans. The Design and Construction Services project manager shall ensure survey is performed and compliance with survey results is met.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.7 CULTURAL RESOURCES				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	___	___	___	✓
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	___	___	___	✓
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	___	___	___	✓
d) Disturb any human remains, including those interred outside of formal cemeteries?	___	___	___	✓

5.7.1 Setting

The UCSB campus has been subject to many cultural resource surveys that have recorded the location of 27 prehistoric/Native American archaeological sites (UCSB 2008b). The identified archaeological sites are generally located along the perimeters of the Main, Storke, and West Campus areas. Many of the sites have suffered moderate to severe disturbance resulting from historic development activities that occurred before UCSB was established. These activities include the use of the campus site as a borrow area to obtain fill material used to construct what is now the Santa Barbara Airport and the construction of World War II Marine Corps facilities. Recent assessments indicate that each area may also contain buried archaeological deposits of scientific value and cultural importance to contemporary Native American Indians (UCSB 1990a).

In May of 2008, a URS archaeologist conducted a cultural resources record search at the UCSB California Historic Research Information System (CHRIS) to identify any cultural resources studies conducted and sites recorded within the study area, defined as all areas within a half-mile radius of the proposed Ocean Science Education Building (OSEB). The last record search to include the project area was conducted in 2006 by Far Western Archaeological Research Group (FWARG 2008) and needed to be updated.

The record search revealed that no cultural resources are located within the proposed OSEB project site, but one prehistoric archeological site (Site 1954-1) is recorded approximately 150 feet to the northwest of the site. FWARG notes that the only information on this site is a notation on Glassow's (1973) map that "burials encountered during construction of Noble Hall "Bio I" c. 1954 Acc:326." The date indicates the burials were discovered during the early phase of UCSB development and subsequent investigations have not identified other cultural material in the area (FWARG 2008). The FWARG report considered all areas within 40 meters (about 130 feet) of a known site location to have a high sensitivity for containing other archaeological material. The OSEB site is immediately adjacent to the 40-meter buffer zone around Site 1954-1 (FWARG 2008) and is considered sensitive as well.

The only other site documented within the half-mile study area is CA-SBA-3916, a seven-meter long buried shell scatter discovered during trenching. This site is located more than one quarter-mile from the proposed OSEB and is described as NH-1 (temporary designation) (FWARG 2008). No historical or paleontological sites are located within the proposed project site.

The project site has been disturbed and the geotechnical report indicates the original ground surface has been covered with approximately 5 feet of artificial fill and that deeper fill depths could locally be present (Fugro West 2006). As a result, the project area has not been previously surveyed for cultural resources, but has been identified as being within an area of moderate/high sensitivity for buried cultural resources (FWARG 2008).

1990 LRDP Policy 30244.4 and 2008 Draft LRDP Policy ARC-4 indicates that during any grading and other activities that may result in ground disturbance on archeological sites, a non-University of California affiliated archeologist recognized by the State Office of Historic Preservation and a Native American representative shall be present. Policy 30244.5 of the 1990 LRDP and Policy ARC-5 of the 2008 Draft LRDP require contractors to temporarily suspend activities if archaeological or paleontological resources are disclosed during any planning, pre-construction, or construction phase of a project activity that could damage or destroy these resources (UCSB 1990b). Activities are suspended until a non-University archeologist recognized by the State Office of Historic Preservation has examined the site. Further, according to these policies, mitigation measures shall be developed and implemented to address the impacts of the project on archeological resources.

5.7.2 Checklist Responses

a. Potential to impact historical resources. There are no historical structures located on the proposed project site. Therefore, the project would *not result in any impacts* to significant historical resources and no mitigation measures are required.

b. Potential to impact archaeological resources. There are no known or recorded archaeological resources on the proposed project site but prehistoric burials recorded as Site 1954-1 were discovered in the 1950s approximately 150 feet to the northwest and the site is located within an area of moderate/high sensitivity for buried cultural resources (FWARG 2008). The site has been previously disturbed by the construction of the existing cinder block structure and storage facilities, underground utilities, service road and parking, bike parking area and path, landscaping, etc., and is presently covered with an uncertain amount of artificial fill estimated to be approximately 5 feet deep (Fugro West 2006). According to the project's geotechnical engineering studies, about the top 3.5 feet of soil under the building foundation would be removed, conditioned, returned to the exposed subgrade, and compacted in place (Fugro 2006 and Fugro 2008). The fill would not contain intact cultural resources that meet criteria for listing in the National Register of Historic Places or the California Register of Historic Resources, but could contain disturbed

archaeological materials bulldozed from nearby archaeological sites like Site 1954-1. Such materials could include human remains, grave goods, and other artifacts. In addition, there is a moderate to high potential that the proposed project site could contain buried undisturbed prehistoric resources that could be affected by excavations associated with the installation of 28-foot long foundation piers. Such resources could meet criteria for listing in the National Register of Historic Places and/or the California Register of Historic Resources. To reduce potential impacts to *less than significant with mitigation*, Mitigation Measure CR-1 will be implemented.

c. Potential to impact paleontological resources or other geological features. There are no known paleontological resources located on the UCSB campus and there are no unique geological features located on the proposed project site. Best management practices such as placement of hay bales and a sediment fence around the excavated area would be implemented. Drainage from the project site would be directed to the east in an existing storm drain, which outfalls on the coastal bluffs above the beach to the east of the site. There would be *no impact*.

d. Potential to impact human remains. There are no known prehistoric or historic cemeteries within the project site, but in 1954 prehistoric burials were noted approximately 150 feet away of the site, and the project site has moderate/high sensitivity for containing buried cultural resources. To reduce potential impacts to *less than significant with mitigation,* Mitigation Measure CR-1 will be implemented.

5.7.3 Mitigation Measures

With the implementation of Mitigation Measure CR-1, which addresses the application of relevant LRDP cultural resource policies to the proposed project, potential impacts to cultural resources would be reduced to a *less than significant* level.

CR-1 A qualified archaeologist and a local Native American will monitor all deep excavation activities (i.e., those at 5 feet below the ground surface and deeper) to identify any cultural resources that may be encountered during such activities, in accordance with 1990 LRDP Policy 30244.5 and 2008 Draft LRDP Policy ARC-4. While the project site is not located on a known archaeological site, it is within an area that has moderate/high sensitivity for containing buried cultural resources and has not been previously tested, therefore these policies should apply to the proposed project. The schedule for monitoring will be established during a pre-construction consultation with the monitors, construction contractor, and UCSB staff. Additionally, in accordance with 1990 LRDP Policy 30244.5 and 2008 Draft LRDP Policy ARC-5, in the event an archaeological resource is encountered during project construction, all earth disturbing work will be temporarily suspended or redirected until the nature and significance of the find is evaluated and impacts mitigated through data recovery and recordation.

Plan Requirements: All requirements shall be shown in bid documents and on demolition and grading plans.

Timing: Condition shall be adhered to throughout all grading and construction periods.

MONITORING: UCSB Office of Campus Planning and Design shall ensure measures are on bid documents and plans.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.8 GEOLOGY AND SOILS				
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	___	___	✓	___
ii) Strong seismic ground shaking?	___	___	✓	___
iii) Seismic-related ground failure, including liquefaction?	___	___	___	✓
iv) Landslides?	___	___	___	✓
b) Result in substantial soil erosion or the loss of topsoil?	___	✓	___	___
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	___	___	✓	___

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	___	___	✓	___
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	___	___	___	✓

5.8.1 Setting

Regional Setting

The Main Campus is located on a marine terrace that is approximately 40 feet above sea level. Stream erosion over the past 10,000 years has eroded the terrace to form a series of valleys, which have accumulated deposits of gravel, sand, silt, and clay. Deposits of older and recent alluvium, which reach a thickness of about 25 feet, typically overlie bedrock material. The underlying bedrock formations on the Main Campus include the Monterey, Sisquoc, and Santa Barbara Formations (UCSB 1990a).

Mapped faults that are located on the UCSB campus include the More Ranch fault zone and the Campus fault, with the Coal Oil Point fault and the Goleta Point fault just off shore of the campus to the south and east. A number of other faults exist in the region, including but not limited to: the San Cayetano, Santa Ynez, San Andreas, Mesa-Rincon Creek, Hosgri, and Red Mountain faults (UCSB 2008b).

The More Ranch fault zone is not classified as active by the State; however, the Santa Barbara County General Plan Seismic Safety Element (County of Santa Barbara 1979) classifies the north branch of the More Ranch fault as active. The south branch of the fault is not listed in the Seismic Safety Element, but would likely be classified as potentially active based on displacement of terrace deposits west of the project site. The More Ranch fault zone extends across all three campuses in an east to west direction.

The potentially active Campus fault was mapped in 1982 and subsequent work by most investigators has acknowledged that the Campus fault and the previously mapped Briggs Lineation is the same feature. The location of the Briggs Lineation/Campus fault is generally well documented. The location of the Briggs Lineation/Campus fault mapped in 1997 is reasonably consistent with other investigations, including a distinct ending of the feature about 500 to 1,000 feet east of the Humanities and Social Sciences Building. The fault extends across the Main Campus in a northeast to southwest direction (UCSB 2008b).

Liquefaction is the loss of shear strength in soil caused by earthquake-generated ground shaking. Liquefaction typically occurs in loose, saturated granular soil and can take place at significant depths. Liquefaction is generally not considered to be a significant concern if onsite soils have a high clay content, consist of dense granular soils, or if groundwater is not present within the upper 40 to 50 feet. The degree of liquefaction susceptibility at a specific location will be dependent upon a variety of factors,

including soil type, texture and degree of soil saturation. In areas of the campus where onsite soils are limited, and there are discontinuities in water-saturated sand and silt zones, the potential for significant effects from liquefaction is reduced. The LRDP EIR (UCSB 1990a) concluded that liquefaction has the potential to occur at locations throughout the UCSB campus.

Sea cliff retreat occurs as a result of marine and non-marine processes on the bluffs surrounding UC Santa Barbara. Marine-induced erosion on bluff faces is generally caused from wave action near the bottom of the bluff, which in turn destabilizes strata at the higher portions of the bluff face. Salt spray from wave-action causes weathering to occur on the bluff face as well, which also leads to erosion. The ability of a sea cliff to resist marine-induced erosion depends on the distance between the bluff and the wave zone, and the physical properties and strength of the strata which make up the bluff face, which in this case considered highly erodable. Bluff terrace deposits on the Main Campus erode at approximately 2 to 6 inches per year, based on a 1999 study done by Fugro West Inc. (UCSB 2008b).

The 1990 LRDP (UCSB 1990a) has a number of specific policies for slope control, slope surface stabilization, and sediment control. For example, 1990 LRDP Policy 30231.1(c) requires that a site-specific erosion control and landscape plan be prepared for all new construction. 1990 LRDP Policy 30231.1(l) and (m), respectively, require slopes to be no steeper that 2:1 and that slopes be constructed as not to endanger adjoining properties. 1990 LRDP Policy 30231.1(j) requires temporary mulching, or other suitable soil stabilization measures to protect exposed areas during construction. 1990 LRDP Policies 30231.1(b) and (n) indicate that sediment traps, barriers, covers, or other methods shall be used to retain sediments on site during site preparation and grading. In accordance with 1990 LRDP Policy 30233(a)(1) fill shall not encroach wetlands or contiguous wetlands, or any other natural watercourses or constructed channels on Campus. See also Table 5.11-2 for other relevant policies of the 1990 LRDP related to sediment control. It should be noted that these policies are generally consistent with related policies in the 2008 Draft LRDP. All sediment control measures must be installed prior to clearing and grading operations.

Project Site Setting

The project site setting provided below is based on a geotechnical report and update report conducted for the proposed project by Fugro West, Inc. (Fugro 2006 and Fugro 2008), unless otherwise indicated. The proposed project site has an elevation of approximately 42 to 43 feet above mean sea level with level topography. The proposed project site is approximately 1,500 feet southeast of the Campus fault and approximately 2,000 feet south of the More Ranch fault. Surface soils at the project site consist of artificial fill and granular terrace deposits of the Baywood sandy loam series, which overlay Sisquoc Formation Bedrock. The artificial fill consists of pavement materials and silty sand and is estimated to be about 5 feet thick. The Baywood terrace deposits were encountered below the fill to a depth of between 12 and 13 feet below the ground surface. The Baywood soils have a very low shrink-swell potential, slight erosion hazard, and are not prime agricultural soils (UCSB 2008b).

Based on the experience from other projects at UCSB, groundwater generally exists in the terrace deposits as a result of groundwater perched on the underlying Sisquoc Formation. Groundwater was not encountered during the drilling for this project. However, very moist soils and soils with high insitu moisture were noted at a depth of about 8 to 10 feet below the ground surface. Depth to groundwater at adjacent buildings (i.e., MSB and Bren) has ranged from about 5 to 10 feet below the ground surface. Based on the current groundwater conditions, the terrace deposit materials below a depth of about 9 to 10 feet and above the bedrock surface are considered susceptible to liquefaction (Fugro 2008).

5.8.2 Checklist Responses

a. Potential to result in significant geologic hazard impacts.

i. Fault-related ground rupture. The proposed project site is located approximately 2,000 feet south of the More Ranch fault and approximately 1,500 feet southeast of the potentially less significant Campus fault. It was determined in the geotechnical engineering report that the potential for ground surface rupture at the project site is low (Fugro 2006). Impacts would be *less than significant* and no mitigation measures are required.

ii. Strong seismic ground shaking. It is likely that the proposed project site would experience strong earthquake-related ground shaking sometime during the life of the structure. Potentially significant ground shaking may result from movement along a local fault or a major earthquake along a more distant fault. The geotechnical engineering report prepared for the proposed project determined that the potential for ground surface rupture at the site is low (Fugro 2006). Recommendations for foundation support described in the geotechnical engineering report and update report will be followed. Impacts would be *less than significant* and no mitigation measures are required to minimize potential ground shaking-related impacts.

iii. Seismic-related ground failure. In accordance with the geotechnical engineering report the potential for liquefaction at the site could be mitigated by over-excavating and re-compacting the soil or by supporting the proposed structures on deep foundations bearing in the Sisquoc Formation bedrock since the bedrock is not prone to liquefaction (Fugro 2006). Based on this guidance, the foundation will be a 14-inch deep concrete mat foundation with up to about 26-inch deep perimeter footings (EHDD 2008). About the top 3.5 feet of soil under the building foundation would be removed, conditioned, returned to the exposed subgrade, and compacted in place. Additionally, cast-in-drill-hole piers (drilled piers) will be founded in the underlying Sisquoc Formation to approximately 28 feet deep to support the large kelp tank. Project design and construction will comply with all recommendations of the geotechnical engineering report and update report prepared for the project. Additionally, building construction would also comply with Title 24 of the California Code of Regulations and the most recent edition of the Uniform Building Code. There would be *no impact.*

iv. Landslides. The proposed project site topography is level, and there are no slopes located adjacent to the proposed project site that would have the potential to result in significant slope stability impacts. There would be *no impact* and no mitigation measures are required.

b. Potential to result in significant soil erosion impacts. Erosion would occur during site grading, excavation, and other ground disturbing construction activities. The construction site would be limited in area (approximately 1.1-acre), and grading and excavation would occur for approximately four weeks. However soils would continue to be exposed during the preparation of the building foundation and trenching for utility installation. Drainage from the project site is ultimately directed to an existing storm drain pipes that outfall on the coastal bluff slope to the east of the site; therefore, an increase in erosion and sedimentation from the project site could impact water quality locally in the adjacent ocean waters.

In accordance with 1990 LRDP Policy 30231.1(c) a site specific erosion control and landscape plan would be prepared for the proposed project (UCSB 1990a) (see also 2008 Draft LRDP Policy ERO-3). In addition, best management practices as required by LRDP Policy 30231.1(n) and (b) such as installing sediment basins and traps around the proposed project site would be implemented prior to clearing and grading to prevent sediment transport (see also 2008 Draft LRDP Policies ERO-2 and ERO-14). Other

relevant 1990 LRDP policies related to sediment control will also be implemented (see above and Table 5.11-2), which are generally consistent with related policies in the 2008 Draft LRDP.

Upon completion of construction the proposed project site would be landscaped with ornamental vegetation. Also, in accordance with recommendations in the geotechnical engineering report, proper drainage around the new structure and improvements would be established and maintained (Fugro 2006). Impacts from erosion would be *less than significant with mitigation*; with implementation of standard mitigation measures for erosion control as described in Mitigation Measure GEO-1.

c. Potential to be affected by geologic or soil-related hazards. The proposed project site has undergone geotechnical investigations (Fugro 2006 and Fugro 2008). Soils engineering concerns include the site's susceptibility to liquefaction, which are described in Item a.iii, above. Additionally, any slopes would be 2:1 unless the geotechnical investigation recommends otherwise in accordance with 1990 LRDP Policy 30231.1(l) and 2008 Draft LRDP Policy ERO-12. All recommendations in the geotechnical engineering report and update report would be followed (Fugro 2006 and Fugro 2008).

The proposed project site is located approximately 100 feet away from the coastal bluff slope (Fugro 2006). 1990 LRDP Policy 30253.7 and 2008 Draft LRDP Policy GEO-7 indicate that new development shall be constructed at a sufficient distance to maintain the proposed structure for a minimum of 100 years without the construction of shoreline protective devices. Assuming an erosion rate of up to 6 inches per year (UCSB 2008b), the proposed project would need to be setback 50 feet from the coastal bluff slope to provide 100 years of protection. As the project site is located 100 feet from coastal bluff slope, there would be *no impact* and no mitigation measures are required.

Overall, impacts from geologic and soil-related hazards would be *less than significant*. No mitigation measures are required.

d. Potential to be affected by expansive soils. Soils that are associated with the Baywood series are generally not considered to be highly expansive. Recommendations in the geotechnical engineering report and update report would be followed (Fugro 2006 and Fugro 2008). Therefore, potential impacts to new structures would be l*ess than significant*. No mitigation measures are required.

e. Potential to result in septic tank failure impacts. The proposed project would not utilize a septic tank and will be connected to the campus sewer system. There would be *no impact*.

5.8.3 Mitigation Measures

The following mitigation measure would reduce impacts from erosion and sediment transport into the storm water system and the beach and ocean.

GEO-1: The following grading and erosion control practices shall be included in the proposed project's erosion control plan and be implemented at the project site for the entire duration of construction.

a. If grading occurs during the rainy season (November through March), sediment traps, barriers, covers or other methods shall be used to reduce erosion and sedimentation.

b. A site-specific erosion control and landscape plan shall be prepared for all new construction.

c. Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm water runoff.

d. Grading operations shall be conducted so as to prevent damaging effects of sediment production and dust on site and on adjoining properties.

e. Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area shall be fenced to define project boundaries.

f. Temporary mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities.

g. Sediment traps, silt fences, straw bales, or other similar sediment control measures shall be installed before clearing and grading operations begin.

Plan requirements: The project manger from Design and Construction Services shall ensure the erosion control measures including all best management practices shall be included in project plans, contract documents, and the erosion control plan prior to construction. The project manager shall ensure best management practices are in place during the entire length of construction.

Timing: Erosion control measures shall be in project plans, contract documents, and the erosion control plan prior to construction and best management practices are in place during the entire length of construction.

Monitoring: The project manager from Design and Construction shall monitor the project site during the entire length of construction to ensure best management practices are in place and are effective. The project manager shall report to UCSB planning staff.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.9 HAZARDS AND HAZARDOUS MATERIALS				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	___	___	___	✓
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	___	___	___	✓
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	___	___	___	✓
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	___	___	✓	___
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	___	___	___	✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	___	___	___	✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	___	___	___	✓
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	___	___	___	✓

5.9.1 Setting

It is the policy of the University of California to maintain a reasonably safe environment for its students, academic appointees, staff and visitors. Campus operations are to be conducted in compliance with applicable regulations and with accepted health and safety protocols.

The UCSB Office of Environmental Health and Safety (EH&S) has the primary responsibility for coordinating the management of hazardous materials on campus. Environmental Health and Safety also develops and assists in the implementation of compliance strategies for all federal and state regulations related to hazardous material and waste management.

A recent review of readily-available agency databases was conducted in conjunction with the 2008 LRDP Draft EIR to identify known or suspected areas of contamination, underground storage tank locations, solid waste management facilities, and hazardous waste treatment, storage, and/or disposal locations (UCSB 2008b). The records search identified one leaking underground storage tank (LUST) sites and one former military site in proximity to the OSEB project site, including:

- Building 408, Tank 2 - LUST Site on Main Campus with diesel fuel release affecting drinking water aquifer. Site assessment activities are underway. This site is about 1,500 feet northwest of the OSEB project site.
- Former Naval Air Station – Formerly Used Defense Site (FUDS) encompassing 1,492 acres including Main Campus. Underground storage tanks were removed, but it's unclear whether contamination still exists at these sites. Closest tanks sites are about 600 feet to the west of the project site.

Additional information about the historical military uses and associated potential contamination is provided below, based on information from the 2008 LRDP Draft EIR (UCSB 2008b).

In 1940, the Civil Aviation Administration proposed improving the airport located in Goleta, eight miles to the north of Santa Barbara. Construction began in 1941 and included a new terminal for United Airlines and filling in the Goleta Slough to accommodate three new runways. In 1942, the Marine Corps Air Station (MCAS) was commissioned and most of the construction was finished by 1943. MCAS Santa Barbara consisted of 586 leased and 900 owned acres supporting 180 aircraft. The barracks housed 493

officers, 3,109 enlisted men, and 440 women marines. There were also 323 civilians assigned to the base. In 1952, UC Santa Barbara acquired the former barracks on the coastal plateau. The barracks were heated with diesel fuel-powered heaters. The diesel fuel was kept in 20 underground storage tanks (USTs) of various sizes located throughout the site. Some of the USTs leaked and the contamination in the soil required remediation. The Army Corp initiated its FUDS process in the late 1980s with the removal of USTs located at the campus. All 21 tanks (20 fuel USTs and one septic system) were removed by the Corps. After the tanks were removed, sidewall and floor samples were collected to determine if soil contamination was present at concentrations in excess of Santa Barbara County Fire Department, Fire Prevention Division (SBCFPD) thresholds. According to the Corps, there are currently no ongoing assessments or remediation activities scheduled due to a disagreement regarding indemnification of the University by the Corps.

Ammunition and explosives have also been found at several locations within the Main Campus and in the ocean surf zone. Ammunition was discovered in a bunker behind the police station in 1988. Two AN-MK5 three-pound practice bombs were discovered in the bluffs and another on the beach in 1990. The bombs were filled with red phosphorous and were deemed active. Divers offshore have also reported encounters with bombs similar to the AN-MK5. The Corps is responsible for the removal of all explosives and ammunition.

The OSEB project will include a Classroom Laboratory and a Seawater Center with wet and dry exhibits. These facilities will generally not include the use of hazardous chemicals. However, there will be specimens on site, which could be preserved in formaldehyde or formalin. Potentially hazardous chemicals such as disinfectants and cleaning solutions used in housekeeping functions, toners and printing fluids used in document reproduction would be used during operation of proposed new building.

5.9.2 Checklist Responses

a-c. Potential to result in impacts from the use or accidental release of hazardous materials. Most of the hazardous substances that would be used in the proposed new building are those used for housekeeping and general office use. However, small quantities of formaldehyde or formalin may be present on site as these substances are used in preserved specimens. All hazardous substances would be stored and handled according to federal, state, and UCSB requirements. There is no risk of accidental release of hazardous materials that would create a significant impact to the public or environment; therefore there would be *no impact*. No mitigation measures are required.

d. Located on a site with known contamination. As indicated above, a recent review of readily-available agency databases identified one leaking underground storage tank (LUST) site and one former military site in proximity to the OSEB project site. The LUST site, located at Building 408 on the Main Campus, is located about 1,500 feet northwest of project site. The OSEB project site is located on the 1,492-acre FUDS site that was a former Naval Air Station. Underground storage tanks associated with this site were removed, but it's unclear whether contamination still exists at these sites (UCSB 2008b). The closest tanks sites are about 600 feet to the west of the project site. Additionally, ammunition and explosives have also been found at several locations within the Main Campus.

There is no known contamination of the proposed OSEB project site (Aghayan 2008). However, in accordance with the U.S. Department of Commerce Real Property Management Manual (July 2003) and customary due-diligence by the National Oceanic and Atmospheric Administration, a Phase I Environmental Site Assessment (ESA) would be prepared as part of the proposed action to support an "innocent landowner" defense under the Comprehensive Environmental Response, Compensation and

Liability Act (CERCLA). All the recommendations of the ESA will be implemented, and therefore impacts would be *less than significant*. No mitigation measures are required.

e, f Potential airport-related conflicts. The proposed project site is not located within a runway approach or clear zone that has been established for the Santa Barbara Airport (UCSB 2008b). There would be *no impact*.

g. Potential to interfere with emergency response or evacuation plans. The proposed project would generate minimal new traffic and would not cause major roadways to be altered or obstructed during or after construction of the building. Therefore, the project would not have the potential to interfere with vehicle emergency access into or out of the project area and there would be no impacts. See Section 5.17 below for additional information. Occupants in the new building would conform to emergency response or evacuation plans that would be developed for the building.

There is a service road on the project site that provides service vehicle access to the Bio-II building and the MSB. This service road will be temporarily closed during construction, which will allow the road to be moved about 10 feet west. Service or emergency vehicle access to these buildings can be provided by Parking Lot #1 located to the north of the Bio-II building and west of the MSB. Signage will be posted directing services vehicles to this location. Additionally, the bike path across the site will be removed as part of the project and therefore will be permanently closed with the initiation of project construction. Signage will be posted directing bicyclists to the permanent route into the campus from Lagoon Road along a recently constructed path just north of the Bren building. There would be *no impact* and no mitigation measures are required. See Section 5.17 for additional information.

h. Potential wildland fire risk. There are no wildland fire risk areas located on or near the proposed project site therefore, there would be *no impacts*.

5.9.3 Mitigation Measures

No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.10 HYDROLOGY AND WATER QUALITY				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	___	✓	___	___
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	___	___	✓	___
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	___	___	✓	___
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	___	___	✓	___
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	___	___	✓	___
f) Otherwise substantially degrade water quality?	___	___	✓	___

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	___	___	✓	___
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	___	___	✓	___
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	___	___	✓	___
j) Inundation by seiche, tsunami, or mudflow?	___	___	✓	___

5.10.1 Setting

Campus drainage is directed towards the Goleta Slough, Campus Lagoon, and the Pacific Ocean. Drainage from the proposed project site drains into the Pacific Ocean via an existing ocean outfall located just east of the site in the coastal bluff slope. Existing storm drains and pipes are located on the site and connect to the existing ocean outfall to the east of the site.

In accordance with 1990 LRDP Policy 30231.1(b) and (n) and 30231.2 (UCSB 1990b) for all campus development sediment shall be retained on site, sediment basins, sediment traps, or similar sediment control measures shall be installed before extensive clearing or grading, and in general, projects shall be designed to minimize soil erosion and, when possible to direct surface runoff away from coastal waters and wetlands (see also 2008 Draft LRDP Policies ERO-2, ERO-14, and ERO-16). The proposed project would implement other best management practices for sediment control identified in the 1990 LRDP, as further described below and in Table 5.11-2. It should be noted that these policies are generally consistent with related policies in the 2008 Draft LRDP.

5.10.2 Checklist Responses

a. Potential to violate water quality standards or waste discharge requirements.

Short-term Impacts. Proposed construction activities would include demolition of existing structures and improvements, grading and excavation, erection of new structures, and finishing and coating activities. If not properly managed, these construction activities would have the potential to temporarily degrade surface water quality due to discharges of sediment and other construction-related materials. The discharge of sediments or other pollutants from the project site during construction could result in

temporary water quality impacts to near-shore ocean waters, as project site runoff is discharged to the ocean at an existing outfall located to the east of the site.

The area on the project site that would be excavated and/or subject to grading is just over one acre. If a project is a minimum of 1 acre in size, such as is the case for the proposed project, it would not need to apply for coverage under the National Pollutant Discharge Elimination System (NPDES) Phase II Statewide General Construction Permit and be accountable for requirements of the General Permit. Additionally, best management practices (sediment traps, barriers, covers, or other methods) would be implemented in accordance with 1990 LRDP Policy 30231.1(b) and (n) to retain sediment on site during site preparation and grading (see 2008 Draft LRDP Policies ERO-2 and ERO-14). 1990 LRDP Policy 30231.1(j) requires projects under construction to apply temporary mulching, seeding, or another stabilization method on exposed areas during construction (see 2008 Draft LRDP Policy ERO-10). In accordance with 1990 LRDP Policy 30231.1(c) a site specific erosion control and landscape plan would be prepared for the project (see 2008 Draft LRDP Policy ERO-3). In accordance with 1990 LRDP Policy 30231.1(e) excavated materials would not be deposited or stored where the material can be washed away by storm water runoff (see 2008 Draft LRDP Policy ERO-5). See Table 5.11-2 for other relevant policies pertaining to the control of erosion and sedimentation, which are generally consistent with related policies in the 2008 Draft LRDP. These policies would reduce the potential for erosion and sedimentation to occur. Standard Mitigation Measure GEO-1 would reduce impacts to *less than significant with mitigation*.

Long-term impacts. Wastewater that would be generated by the proposed project would consist only of domestic wastewater that would be disposed into the campus sewer system. Wastewater generated by the proposed project would be from restrooms, sinks, and drinking fountains. Wastewater from the UCSB campus is sent to the Goleta Sanitary District (GSD) for treatment and disposal. The treatment plant has a design capacity of 9.7 million gallons per day (MGD), but the NPDES permit for the plant's ocean outfall sets a plant capacity limit of 7.64 MGD. On average, the daily flow into the treatment plant is 5.78 MGD (UCSB 2008b). Therefore, the District's treatment plant has existing remaining capacity to serve the project. Further, activities that would be conducted at the project site would occur indoors, which would limit the potential for the release of any substances that could adversely affect water quality. The proposed project would not result in significant long-term runoff water quality impacts or considerable contribution to cumulative runoff water quality impacts and no mitigation measures are required. There would be *no impact*.

The proposed facility would also be provided with seawater to serve the Seawater Center and other facilities in the OCTOS building wing, and to provide for low-energy cooling throughout the facility. However, based on current seawater usage, the project would not: (1) exceed the pumping capacity of the existing seawater system, (2) require an increase in seawater already pumped and delivered to the Bio-II Building and MSB, or (3) result in a change in the volume or composition of seawater discharged to the ocean (Aronson 2008). The current pumping capacity is approximately 992 gallons per minute (gpm). However, only about 270 gpm is delivered to the adjacent seawater users on campus (i.e., the Bio-II building and MSB). Of this quantity delivered, only about 140 gpm is currently being used by these buildings and the remainder is discharged. As the proposed OSEB will have a seawater demand of about 108 gpm, the project should not require any additional seawater pumping or deliveries to the project site, nor will it result in an increase in seawater being discharged to the ocean via the discharge point located on the bluff just east of the proposed project site. As indicated in the Section 2.3, seawater will continue to be discharged from this discharge point until the Lagoon Road Storm Drain Project is planned and implemented, which is expected to direct used seawater to the Campus Lagoon. Therefore, the proposed project would not result in water quality impacts associated with increases in seawater intake or discharge volumes. There would be *no impact*.

b. Potential to deplete groundwater supplies. The campus water supply is not generated through groundwater therefore the proposed project would not contribute to a depletion of groundwater supplies. Additionally, the primary regional groundwater source is the Goleta Groundwater Basin, which is located north of the More Ranch fault and the UCSB campus. Groundwater at the UCSB campus occurs primarily as perched water aquifers and is not a potable source (UCSB 2008b). Therefore, project construction and associated impervious surfacing would not interfere with groundwater recharge of a potable source. The project also would not interfere with recharge of the perched water aquifers on campus, as it would not result in a substantial increase in impervious surfacing given that the site is already developed. Impacts on groundwater would be *less than significant* and no mitigation measures are required.

c-e. Potential to alter existing drainage patterns or exceed capacity of existing drainage system. The proposed project would not result in the alteration of existing drainage patterns or exceed the capacity of the existing drainage system. The project site is developed and is surrounded by development on three sides. Development of the proposed project would convert approximately 1.1-acre of area from an under-developed site with asphalt and concrete pavement, and cinder block structures to a new 2-story building and associated improvements. The proposed project site has ornamental landscaping around the perimeter of the service road and bike parking area, and north of the seawater cinder block structure. Landscaping consists of Eucalyptus trees of varying heights, palm trees, shrubs and a grassy area. The project-related increase in impervious surface area would result in a very slight increase in storm water runoff and would not alter existing drainage patterns. There would be some relocation of existing storm water pipes under the site to allow for the building foundation. However, the project would connect to the existing storm drains on or immediately adjacent to the site. No expansion of storm water facilities would be required to serve the project. Therefore, the project would not result in substantial erosion, siltation, or flooding as a result of the alteration of existing drainage patterns, nor would it exceed that capacity of the existing drainage system. Impacts would be *less than significant* and no mitigation measures are required.

f. Otherwise substantially degrade water quality. The project would not otherwise substantially degrade water quality. See responses to items a through e above.

g-j. Potential flooding impacts. The proposed project site is not located within the boundary of the 100-year floodplain area (FEMA 1985) or within a flood hazard area (UCSB 2008b). The only tsunami to strike the Santa Barbara area occurred in 1812 as a result of an offshore earthquake (UCSB 1990b). The project site has not been identified as within an area that could be inundated by a tsunami (UCSB 2008b). Given the relative infrequency of seiches and tsunamis at UCSB and the project site location, there is little potential of impacts from these natural occurrences. Therefore, the project would not expose humans or structures to a significant risk of loss, injury, or death related to flooding. Impacts would be *less than significant* and no mitigation measures are required.

5.10.3 Mitigation Measures

The OSEB project has the potential to result in erosion and sedimentation impacts. Mitigation Measure GEO-1 would reduce short-term water quality impacts to a less-than-significant level.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.11 LAND USE AND PLANNING				
Would the project:				
a) Physically divide an established community?	___	___	___	✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the LRDP, general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	___	___	___	✓
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	___	___	___	✓

5.11.1 Setting

The proposed project site is designated for Academic Uses by the Land Use and Circulation map that is contained in the 1990 LRDP (UCSB 1990a). This designation is consistent with the 2008 Draft LRDP land use designation Academic and Support. The portion of the proposed project site where the building would be constructed currently contains a cinder block structure, storage facilities, service road and parking, a bicycle parking lot and path, and ornamental vegetation and trees. Surrounding land uses include: the MSB to the north, the Bio-II building to the west, and the Anacapa Residents Hall to the south across UCen road. Lagoon Road is immediately adjacent the project site to the east. Other development in the project area includes: the Bren building to the north of MSB and Parking Lot #1 to the west of Bio-II.

The 1990 LRDP serves as UCSB's Local Coastal Plan and implements the California Coastal Act on a local level. Prior to approval of the 1990 LRDP by the CCC, it was determined that the 1990 LRDP was consistent with and implemented the requirements of the Coastal Act. As such, proposed development projects that are undertaken at UCSB must be found to be consistent with the policies and requirements of the 1990 LRDP.

In accordance with 1990 LRDP Policy 30250(a).1 no more than 830,000 square feet of building footprint site area will be developed on the Main Campus for buildings other than potential parking garages and student housing. Major development has occurred since the adoption of the 1990 LRDP. Approximately 590,482 square feet of building footprint site area has been developed since the adoption of the 1990 LRDP. Another 111,541 square feet of building footprint site area is under construction, awaiting construction, or is in the planning stages. The OSEB project was not specifically included in the 1990 LRDP as a potential building location. However, the proposed seawater center, technology theater, and wet class laboratory that were originally planned and approved as part of the MSB, were not constructed due to funding constraints. The MSB and adjacent Bren building are located on potential building location 25 on 1990 LRDP Figure 16. Adequate site area (gsf) and building area (asf) remains to accommodate the proposed OSEB on potential building location 25, given that the originally planned OCTOS space was not built as part of the MSB (see Chapter 1, Table 1.6-1). The OSEB is therefore considered to be included in the 830,000 square feet 1990 LRDP building area and is in conformance with Policy 30250(a).1. However, 1990 LRDP Figure 16 would be modified slightly so that the boundary of potential building location 25 encompasses the OSEB project site (see **Figure 2.5-1**). The total square feet of building footprint site area developed, under construction, or proposed to be developed and waiting final approval, since 1990 is 702,023 square feet (Table 5.11-1). Therefore, the building limit identified in 1990 LRDP Policy 30250(a).1 has not been exceeded. It should be noted that the proposed OSEB project is consistent with the 2008 Draft LRDP Figure D.3, Proposed Building Sites, and is accounted for in the anticipated future space needs of the campus through 2025 shown in 2008 Draft LRDP Table D.2.

Table 5.11-1 Square Feet of Building Site Area Developed Since the 1990 LRDP Adoption

Building	Square Feet (Building Footprint)
Student Affairs and Administrative Services*	22,500
Physical Sciences*	37,601
Environmental Sciences*	26,256
Institute of Theoretical Physics*	14,691
Environmental Health and Safety*	14,733
Recreation Center and Aquatics Complex*	55,739
University Center Expansion*	58,493
Humanities and Social Services*	64,000
Material Research Laboratory*	12,270
Engineering Science Building*	47,500
Kohn Hall Addition*	4,634
Marine Sciences Building*	15,402
Life Sciences Building*	23,905
Intercollegiate Athletics Building*	28,460
Harder Stadium Offices*	12,965
California Nanosystems Institute*	43,061
Recreation Center Expansion*	51,100
Psychology Building Expansion*	7,240
Arbor Expansion*	4,182
Snidecor Hall Replacement Facility*	7,500
Student Resources Building*	28,000
Residential Life Resource Building**	5,128
Education and Social Sciences Building**	80,000

Alumni House*		10,250
Isla Vista Foot Patrol**		5,188
Engineering II Addition**		7,225
Library Addition**		14,000
	Total	**702,023**

*Construction Complete
**Undergoing construction or awaiting approval and/or construction

5.11.2 Checklist Responses

a. Potential to divide an established community. Construction of the proposed project would not divide or isolate any uses that have been established on the UCSB campus. There would be *no impact*.

b. Conflict with applicable land use plans or policies. The 1990 LRDP is the applicable land use plan for the UCSB campus. An analysis of the proposed project's consistency with the 1990 LRDP policies is provided in Table 5.11-2. Since the proposed project would take place within the Campus, no local land use plans or policies apply. The proposed project will require an amendment to the 1990 LRDP to slightly modify 1990 LRDP Figure 16 so that the boundary of potential building location 25 encompasses the OSEB project site (see **Figure 2.5-1**). As indicated above, the OSEB square footage is considered to be included in the 830,000 square feet 1990 LRDP building area, and is in conformance with 1990 LRDP policy 30250(a).1. The project is consistent with the 1990 LRDP policies and there would be *no impact*.

Table 5.11-2 Long Range Development Plan Policy Consistency Analysis

POLICY	ANALYSIS
New Development	
30250(a). 1 No more that 830,000 square feet of site area will be developed on Main Campus for buildings other than potential parking garages and student housing.	**Consistent.** The proposed building would be within the 830,000 square feet of development allowed in the LRDP.
Scenic and Visual Qualities	
30251.2 Other than the Marine Sciences Laboratory complex, buildings shall not be constructed or expanded within 50 feet of the west curb of Lagoon Road.	**Consistent.** The proposed building would be setback 50 feet from the west curb of Lagoon Road.
30251.4 Bluff top structures shall be set back from the bluff edge sufficiently far to insure that the structure does not infringe upon public views from the beach unless development presently impacts view from the beach. All new developments shall include landscaping which mitigates the developments' adverse visual impacts.	**Consistent.** The proposed building would be setback sufficiently far to ensure that it does not infringe upon public views from the beach. The proposed project includes new trees and other landscaping that more than compensate for the tree removal that would occur with the project.
30251.5 New structures on the Campus shall be in general conformance with the scale and character of surrounding development. Clustered developments and innovative designs are encouraged.	**Consistent.** The proposed building will be in located on an underdeveloped site adjacent to other academic buildings on the Main Campus. The proposed building will be in conformance with the scale and character of the existing Bio-II and Bren buildings, although will be much lower in stature than surrounding development.

POLICY	ANALYSIS
30251.6 Buildings on Main and Storke Campuses shall not exceed the height limits established in Figure 19 measured to the ridgeline, except for mechanical and electrical equipment.	**Consistent.** The proposed building will be in conformance with the 45-foot height limit in LRDP Figure 19, As the building will be approximately 31-feet high.
30251.7 In order to preserve existing native trees and significant stands of trees which pre-date University acquisition of the Campus, to the extent feasible, native trees shall be retained within the overall site area of new development.	**Consistent.** The proposed project would not result in the removal of any existing native (i.e., sycamore or oak) trees or trees that pre-date the University.
30251.15 Natural building materials and colors that are compatible with the surrounding landscape will be used where practical.	**Consistent.** The proposed project will conform with this policy.
30251.17 Native plantings will be used to visually integrate and buffer development from public access corridors.	**Consistent.** The proposed building is setback from the western edge of Lagoon Road. The proposed landscape plan calls for the use of small and medium sized native trees and small pockets of native plants of the Channel Islands.
Safety, Stability, Pollution, Energy Conservation, Visitors	
30253.1 Buildings shall not be placed astride any faults. The actual setback from the fault trace shall be determined based upon site-specific geotechnical studies, but no closer than fifty (50) feet from active or potentially active faults.	**Consistent.** The proposed building will not be placed astride an earthquake fault.
30253.2 Subsurface geotechnical and soil studies shall be conducted to determine proper building foundation and infrastructure design to address potential seismic and liquefaction hazards, if any.	**Consistent.** A geotechnical engineering report and update report have been prepared for the proposed project (Fugro 2006 and Fugro 2008). All recommendations of these reports will be followed.
30253.7 New development shall be constructed at a sufficient distance to maintain the proposed structure for a minimum of 100 years without the construction of shoreline protection devices.	**Consistent.** The proposed project site is located approximately 100 feet away from the coastal bluff slope, which will maintain the proposed structure for more than 100 years without the construction of shoreline protective devices. See Section 5.8 for additional information.
30253.16 Campus development should comply with Federal Emergency Management Agency (FEMA) requirements for development in an A1-30 flood hazard zone.	**Consistent.** The proposed project site is not located within the boundary of the 100-year floodplain area or within a flood hazard area. See Section 5.10 for additional information.
Public Works Facilities	
30254.1 Development of water mains, reclaimed water distribution systems, water treatment facilities, sewage lines, telephone transmission lines, and parking lots and structures will be designed and constructed to meet Campus needs. Future development provided for in the LRDP land use plan will only be permitted by the University after it has been demonstrated that adequate water and sewer services are available to supply the existing and proposed development. The program for monitoring current levels of water and sewage services shall be continued to ensure a reserve of water and sewer capacity to serve the campus.	**Consistent.** Site utilities and connection points for the proposed project currently exist on the project site or within reasonable proximity to the site. No expansion of utility systems would be required to serve the project. Adequate water and sewer services are available to supply the proposed development, as demonstrated in Section 5.18.

POLICY	ANALYSIS
Access, Recreation Opportunities, Posting	
30210.12 Mesa Road will be widened to four lanes to become the new perimeter access road on the Main and Storke Campuses, with clear signs at its intersection with feeder roads (Stadium Road and Lagoon Road) directing the public to parking lots designated for coastal visitors.	**Consistent.** The proposed project would not result in the generation of substantial traffic and is not relevant to the widening of Mesa Road. Therefore, the implementation of this policy is not required at this time.
Development Not To Interfere With Access	
30211.1 Motor vehicle traffic generated by new development shall not restrict or impede public access to or along the coast by exceeding the roadway capacity of existing coastal access routes on Campus. Should any proposed development significantly impact the roadway capacity of existing coastal access routes on Campus, the University shall implement or pay its fair share of costs to the City of Goleta and/or County of Santa Barbara to implement improvements to roadway and intersections or other traffic control measures necessary to mitigate the impacts.	**Consistent.** The proposed project would not result in the generation of substantial new traffic, as existing and future levels of services would not be degraded with the proposed project. Therefore, the project would be consistent with the requirements of this policy.
Environmentally Sensitive Habitat Areas; Adjacent Developments	
30240(a).4 To preserve roosting habitat for bird species and monarch butterflies, special consideration and care shall be given prior to the removal or trimming of any significant native and non-native trees and shrubs such as eucalyptus, and some pine species that provide habitat for sensitive species. Non-native and native tree and brush species that provide habitat for sensitive species may only be removed if their presence inhibits fulfillment of other LRDP objectives such as restoration of native habitat, construction of new structures and infrastructure, and protection of sensitive biological resources. Prior to removal or trimming of any non-native and native tree species that provide habitat for sensitive species, the University shall conduct biological studies to show that trees do not provide nesting, roosting, or foraging habitat for raptors and sensitive bird species, aggregation or significant foraging sites for monarch butterflies, or habitat for other sensitive biological resources. Prior to the removal of non-native shrubs during the nesting season for sensitive birds (February 15 through August 31) the University shall conduct a biological survey of the shrubs to prevents impacts to nesting sensitive bird species.	**Consistent.** Removal of existing eucalyptus trees would provide for the development of a new building, in accordance with LRDP objectives. Site surveys indicate that sensitive bird species are not currently using the trees for nesting. Pre-construction surveys will also be conducted in accordance with Mitigation Measure BIO-1, to ensure that sensitive bird species are not affected by tree removal during construction.
30240(b).4 All new lighting shall be kept at the minimal level, which strikes a balance between safety and habitat protection and shall be designed to avoid glare into adjacent properties.	**Consistent.** Lighting would be designed to avoid glare into adjacent properties.
30240(b).24 Environmentally sensitive habitat areas (ESHA) on campus shall be protected, and where feasible and appropriate, enhanced. All new development shall be set back a sufficient distance	**Consistent.** The proposed building would be setback approximately 100 feet from the nearest ESH areas to the site, which are located east across Lagoon Road and include the habitats associated with the

POLICY	ANALYSIS
from ESHA so as to protect any sensitive biological resources. The minimum setback or buffer shall be 100 feet except on the North Parcel pursuant to Policy 30230.4 or as otherwise specified in this LRDP. Where destruction of ESHA is unavoidable and permitted and/or buffers between ESHA and development are less than 100 feet, a restoration plan shall be required to mitigate the lost habitat at a 4:1 ratio for wetland, riparian, and open water or stream habitats and 3:1 for all other ESHA. Restoration as a result of mitigation for a project shall be conducted onsite where feasible.	coastal bluff and beach.
Archeological or Paleontological Resources	
30244.1 All available measures shall be explored to avoid development which will have adverse impacts on archeological resources.	**Consistent.** It's unclear whether foundation excavations in native soils, below the artificial fill on the site could affect archaeological resources. The project site is located in an area of moderate/high sensitivity for subsurface archaeological resources (FWARG 2008). Given that, it is possible that such resources could be encountered during foundation excavations deeper than about 5 feet. See discussions below for compliance with other policies.
30244.2 The Department of Anthropology and Native Americans will be consulted when development may adversely impact archeological resources.	**Consistent.** The campus would adhere to the requirements of this policy
30244.4 During any grading and other activities that may result in ground disturbance on archeological sites, a non-University of California affiliated archeologist recognized by the State Office of Historic Preservation and a Native American representative shall be present.	**Consistent.** The campus/contractor would adhere to the requirements of this policy. Due to the project site's location in an area with moderate/high sensitivity for subsurface archaeological resources, a monitor shall be present during the excavations of native soils, as called for in Mitigation Measure CR-1.
30244.5 Should archeological or paleontological resources be disclosed during any planning, pre-construction or construction phase of the project, all activity which could damage or destroy these resources shall be temporarily suspended until the site has been examined by a non-University archeologist recognized by the State Office of Historic Preservation. Mitigation measures shall be developed and implemented to address the impacts of the project on archeological resources.	**Consistent.** The project proponent/contractor would adhere to the requirements of this policy, as called for in Mitigation Measure CR-1.
Biological Productivity; Wastewater	
30231.1(b) If grading occurs during the rainy season (November 1 though March 30), sediment traps, barriers, covers or other methods shall be used to reduce erosion and sedimentation.	**Consistent**. The project proponent/contractor would adhere to the requirements of this policy.
30231.1 (c) A site-specific erosion control and landscape plan shall be prepared for all new construction.	**Consistent.** The project proponent/contractor would adhere to the requirements of this policy.

POLICY	ANALYSIS
30231.1(e) Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm runoff.	**Consistent.** Soil excavated during grading would be backfilled back onto the project site and compacted. Best management practices to avoid sedimentation would be implemented, therefore the potential for erosion to occur would be minimal.
30231.1(f). Grading operations on campus shall be conducted so as to prevent damaging effects of sediment production and dust on the site and on adjoining properties.	**Consistent.** There would be grading and excavation as part of the proposed project, however erosion control measures would be included on project plans to prevent erosion from excavated areas.
30231.1(g) When vegetation must be removed on-Campus, the method shall be one that will minimize the erosive effects from the removal.	**Consistent.** Ornamental landscaping and trees would be removed to construct the building. Best management practices will be implemented to prevent erosion.
30231.1(h) Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area should be fenced to define project boundaries.	**Consistent.** Ornamental landscaping and trees would be removed to construct the building. Best management practices will be implemented to prevent erosion.
30231.1(i) Removal of existing vegetation on Campus is to be minimized wherever possible.	**Consistent.** The project site is currently developed. Ornamental landscaping and trees would be removed only to allow for the construction of the building. New landscaping and trees would be planted with the project.
30231.1(j) Temporary mulching or other suitable stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities on campus.	**Consistent.** Ornamental landscaping and trees would be removed to construct the building. Best management practices will be implemented to prevent erosion.
30231.1(k) Topsoil removed from the surface in preparation for grading and construction on Campus is to be stored on or near the site and protected from erosion while grading operations are underway, provided that such storage may not be located where it would cause suffocation of root systems of trees intended to be preserved. After completion of such grading, topsoil is to be restore to exposed cut and fill embankments of building pads so as to provide a suitable base for seeding and planting.	**Consistent.** The project proponent/contractor would adhere to the requirements of this policy.
30231.1(l) Slopes, both cut and fill on Campus, shall not be steeper than 2:1 unless a geological and engineering analysis indicates that steeper slopes are safe and erosion control measures are specified.	**Consistent.** The project proponent/contractor would adhere to the requirements of this policy.
30231.1(m) Slopes on Campus shall not be constructed so as to endanger or disturb adjoining property.	**Consistent.** The project proponent/contractor would adhere to the requirements of this policy.
30231.1(n) Sediment basins, sediment traps, or similar sediment control measures shall be installed before extensive clearing and grading operations begin for campus development.	**Consistent.** The project proponent/contractor would adhere to this policy requirement where applicable.
30231.1(o) Neither wet concrete, nor slurries thereof, shall be permitted to enter any Campus wetland.	**Consistent.** The proposed project site is not within the vicinity of any campus wetland. Concrete would not enter any wetland.
30231.2(b) During Campus development, sediment shall be retained on the site.	**Consistent.** The project proponent/contractor would adhere to the requirements of this policy.

POLICY	ANALYSIS
30231.2(j) Minimize siltation of the Campus Lagoon.	**Consistent.** The proposed project site is not within vicinity of the Campus Lagoon and best management practice to prevent sedimentation would be in place.
30231.2(k) Prohibit chemical wastes, sewage effluent or wastewaters from entering the Campus Lagoon.	**Consistent.** Wastewater from the project would be discharged into the existing wastewater system on Campus. There would not be discharge into the Camps Lagoon.
30231.2(m) All sewage from Campus development shall be disposed of in sanitary sewer lines or approved septic tank system subject to design and performance requirements of the Regional Water Quality Board	**Consistent.** Wastewater from the project would be discharged into the existing wastewater system on Campus.
30231.3 Drainage and runoff shall not adversely affect the Campus wetlands a. The near slopes along the edge of wetlands shall remain an undisturbed buffer area. b. Pollutants shall not be allowed to enter the area through drainage systems. c. Runoff into wetlands will not increase sediment from campus property.	**Consistent.** The proposed project would not result in any construction or ground disturbing activity near a wetland area. The project would not result in an increase in the development of new parking lots, or other areas or uses that would have the potential to result in significant long-term adverse effects to the quality of runoff water. Wastewater would be discharged into the existing wastewater system on campus. Therefore, the project would not result in adverse long-term water quality impacts to wetlands. The potential for short-term, construction-related impacts to runoff water quality can be reduced to a less-than-significant level with the implementation of best management practices for sediment control.
Diking, Filling or Dredging	
30233(a)1 Fills shall not encroach on Devereux Slough, Storke Campus Wetlands, Campus Lagoon or any other natural water courses or constructed channels on Campus.	**Consistent.** The proposed project would not require any construction activities within or adjacent to wetland areas.

c. Potential to conflict with conservation plans. No habitat conservation plans or natural community conservation plans have been adopted that affect the proposed project sites. There would be *no impact*.

5.11.3 Mitigation Measures

No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.12 MINERAL RESOURCES				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	___	___	___	✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	___	___	___	✓

5.12.1 Setting

There are no substantial mineral resources or existing mineral resource recovery operations located on or near the UCSB campus.

5.12.2 Checklist Responses

a-b. Potential to result in impacts to mineral resources. The proposed project would not have the potential to limit the availability of mineral resources to the area or region, or interfere with mineral resource recovery operations. There would be *no impact*.

5.12.3 Mitigation Measures

No mitigation measures are required.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.13 NOISE				
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?	___	✓	___	___
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	___	___	___	✓
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	___	✓	___	___
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	___	✓	___	___
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	___	___	___	✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	___	___	___	✓

5.13.1 Setting

Background

Principal sources of noise on the Main Campus include outdoor events or "rallies" at Storke Plaza or outside of Cheadle and Campbell Halls, automobile traffic, and construction activities. Off-campus

sources of noise include aircraft, trains, and automobiles. The primary noise sources of concern at UCSB are arterial roadway and highway traffic, and aircraft activities associated with the Santa Barbara Municipal Airport (UCSB 2002a). The project site is located well outside of the 60 dBA CNEL noise contour of the Santa Barbara Airport (UCSB 2008b). Existing modeled traffic noise levels at sensitive receptors located adjacent to roadways on the Main Campus range from approximately 62 to 73 dBA Leq, based on modeling done in 2007 (UCSB 2008b). The highest noise level (73 dBA Leq) was found at the East Gate Roundabout, northeast of the project site. Existing traffic noise levels on Lagoon Road, at the intersection with UCen Road are 62 dBA Leq.

Land uses generally regarded as being "sensitive receptors" to elevated noise levels include facilities such as residences, hospitals, schools and classrooms, libraries, guest lodging, and offices. The proposed project site is currently occupied by a cinder block structure housing seawater facilities, storage facilities, service road and parking, a bicycle parking lot and path, and ornamental vegetation and trees. There are academic and research buildings to the north and west of the site, and residential buildings to the south of the project area.

Standards of Significance

The Santa Barbara County CEQA Guidelines consider exterior noise exceeding 65 dBA CNEL to be significant (UCSB 2008b). The 2008 LRDP Draft EIR indicates that a project would have a significant noise impact related to project operations if it would:

- Generate outdoor noise levels in excess of 65 dBA CNEL that could affect existing sensitive noise receptors.
- Expose noise sensitive uses to 65 dBA CNEL or greater in outdoor living areas or if indoor noise levels cannot be reduced to at least 45 dBA CNEL.
- Increase ambient noise levels at noise sensitive receptors by 3 dBA or more when ambient noise levels are at or already exceed the 65 dBA outdoor CNEL. The 2008 LRDP Draft EIR indicates that generally speaking, doubling the traffic volume increases the ambient noise environment by approximately 3 dBA (UCSB 2008b).

UCSB established an interior noise standard for classrooms of 52 dBA (A-weighted sound level) L_{eq} for construction noise (UCSB 1990b). Further, the 2008 LRDP Draft EIR indicated that a project would have a significant impact if it would place active construction sites within 1,000 feet of noise-sensitive uses (UCSB 2008b). Construction noise impacts would be most noticeable at facilities such as student housing, libraries, and classrooms.

5.13.2 Checklist Responses

a & c. Potential to result in a long-term increase in noise. The proposed project could result in an increase in ambient noise levels at the site as a result of new stationary equipment associated with the proposed building. However, the building will not be equipped with ground or rooftop air compressors and air conditioning units, nor will it have an emergency generator. Further, mechanical noise will likely be similar to that generated by existing adjacent academic buildings (Bio-II and Bren buildings), which have not resulted in ambient noise levels in excess of 65 dBA at the Lagoon Road/UCen Road intersection near the site (UCSB 2008b). Mitigation Measure NOISE-1 would ensure that potential project impacts from stationary noise at sensitive receptors located adjacent to the project site would be *less than significant with mitigation.*

The proposed project would result in a minimal amount of new traffic associated with the 26 new CINMS and NOAA staff that would be housed in the CINMS building wing and additional visitors that would be served by the OCTOS building wing. As indicated in Section 5.17 below, the CINMS and NOAA staff would generate 119 daily trips and 11 p.m. peak hour trips. This amount of additional traffic would not likely increase traffic noise levels over the modeled 2007 traffic noise levels in the 2008 LRDP Draft EIR. Further, as the project would not come close to doubling the traffic volumes over existing conditions, it would not increase ambient noise levels at noise sensitive receptors by 3 dBA or more at locations where ambient noise levels are at or already exceed the 65 dBA outdoor CNEL, such as is the case at the East Gate Roundabout. Therefore, in accordance with the standards of significance identified above, traffic noise impacts associated with the proposed project would be *less than significant* and no mitigation would be required.

Additionally, the proposed project would not result in a cumulatively considerable contribution to the significant traffic noise impact associated with development under the 2008 Draft LRDP (UCSB 2008b), as the project would not contribute to the degradation of existing or future baseline traffic noise levels.

b. Potential generation of excessive groundborne vibration or groundborne noise levels. Project construction and operation would not have the potential to generate excessive groundborne vibration or groundborne noise levels. Standard construction techniques and equipment would be used and would not generate excessive vibration. There would be *no impact*.

d. Potential to result in a short-term increase in noise. There would be short-term noise generation from demolition and site preparation (removal of structures and trees, and grading and excavation) and from foundation development and structure framing. Site preparation is estimated to take approximately four weeks. Therefore, noise generated by site preparation and grading would be short-term. Standard construction equipment would be used. Typical construction equipment noise levels measured at a distance of approximately 50 feet from the construction equipment can typically range between 75 to 95 dBA (USEPA 1971 and UCSB 2008b), which would exceed a standard 45 dBA interior noise level, as well as the 52 dBA interior noise level established by UCSB for classrooms. Further, the proposed project site is located within 1,000 feet of noise sensitive uses (i.e., classrooms and residential). Mitigation Measures NOISE-2 through NOISE-4 would reduce potential impacts from construction noise to *less than significant with mitigation.*

The proposed project would result in 6 school bus trips to the project site during the week during non-peak hours. The buses would come in via the East Gate Roundabout and access the site via Lagoon Road. A new bus pull-out would be constructed along the eastern edge of the site on Lagoon Road for drop-off and pick-up. Noise levels at the project site could at times temporarily exceed 65 dBA CNEL when buses arrive and/or idle at the site. However, this would be a temporary condition, as buses would immediately leave the site after drop-off, park in Parking Lot #38 on Storke Campus for the duration of the children's visit, and return for pick-up. Further, Mitigation Measure NOISE-5 would reduce potential impacts from bus-related noise at the project site to *less than significant with mitigation.*

e, f. Potential to result in airport-related noise impacts. The proposed project would not be subject to increased airport-related noise due to its proximity to the airport. As indicated above, the project site is located well outside of the 60 dBA CNEL noise contour of the Santa Barbara Airport. There would be *no impact* from airport-related noise.

5.13.3 Mitigation Measures

NOISE-1: New heating, ventilation, and other noise-generating equipment shall be properly shielded to minimize noise generation. Additionally, such equipment shall be adequately maintained in proper working order so that noise levels emitted by such equipment remain minimal.

Plan Requirements: Specifications for shielding shall be included in all contract documents and project plans.

Timing: Shielding shall be implemented during the construction phase.

MONITORING: The project manager from Design and Construction Services shall ensure shielding has been installed during construction. Project manager from Design and Construction Services shall ensure that equipment is adequately maintained in proper working order during project operation.

NOISE-2: To minimize the effects of construction-related noise impacts to surrounding buildings the timing of construction activities that would result in noise levels that would cause indoor noise levels to exceed standards (52 dBA for classrooms and 45 dBA for residential) (i.e. heavy equipment use for site grading and demolition, etc.) shall be coordinated with the Department Management Services Officers of affected Departments. The purpose of this coordination is to, if necessary, facilitate actions that will minimize the effects of peak construction noise impacts. These actions may include, but are not limited to: alerting adjacent campus building managers and/or occupants of the construction schedule, scheduling construction/demolition activities to occur when classes are not in session; temporarily rescheduling classes; or providing alternative meeting locations for classes that are adversely affected by construction activities.

Plan Requirements: Specifications shall be included in all contract documents and project plans. Construction contractors shall implement scheduling constraints during the construction phase.

Timing: Specifications shall be included in all contract documents and plans prior to construction and scheduling construction to reduce construction phase noise impacts to the extent feasible.

MONITORING: The project manager from Design and Construction Services shall periodically monitor construction site and coordinate with faculty and staff in surrounding buildings.

NOISE-3: The Design and Construction Services project manager and the Department Management Services Officers of affected Departments shall be provided with the name(s) and phone number(s) of the construction site foreman or other individuals who have the authority to respond to complaints regarding excessive noise or vibration levels.

Plan Requirements: Information shall be provided to the Design and Construction Services project manager in contract specification documents. The project manager's contact information (name and phone number) shall be posted on-site to address complaints.

Timing: Information shall be provided prior to construction and be implemented during the construction phase.

MONITORING: The project manager from Design and Construction Services shall ensure he/she has contact information prior to start of construction and that contact information is shared with the Department Management Services Officers.

NOISE-4: Stationary construction equipment that results in noise levels in excess 65 dBA shall be located as far away from noise sensitive receptors as possible. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains or other similar devices.

Plan Requirements: The equipment area with appropriate acoustic shielding shall be designated on building and grading plans.

Timing: Equipment and shielding shall remain in the designated location throughout construction activities.

MONITORING: Project managers from Design and Construction Services shall perform site inspections to ensure compliance.

NOISE-5: School buses arriving at the site will not be allowed to idle for excessive periods. Signage at the bus drop-off location shall be installed to strongly discourage the idling of buses during drop-off and/or pick up of children.

Plan Requirements: Signage specifications shall be included in all contract documents and project plans.

Timing: Signage shall be installed prior to building occupancy and shall remain in the designated location throughout project operation.

MONITORING: Project managers from Design and Construction Services shall perform site inspections to ensure compliance.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.14 POPULATION AND HOUSING				
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	___	___	___	✓
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	___	___	___	✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	___	___	___	✓

5.14.1 Setting

There are seven residence halls located on the Main Campus of UCSB. These residence halls include Santa Cruz, De La Guerra, Ortega, Anacapa, Santa Rosa, San Miguel, and Manzanita Village. Six of these residence halls are located on south Main Campus in an area designated for use as Student Housing. The seventh, Manzanita Village is located on the far western side of the Main Campus in an area designated for housing. Approximately 2,700 of the 4,000 students housed in University owned or operated facilities live in the seven residence halls (UCSB 1990a).

No residences are located on the proposed project site. Infrastructure required to serve the project (i.e. power, utilities, water, wastewater, and roads) is located on or in the vicinity of the project site.

5.14.2 Checklist Responses

a. Potential to result in growth inducing impacts. The proposed project does not add any University affiliated student, faculty, or staff population to UCSB campus. The CINMS and NOAA staff that would occupy the CINMS wing would come from existing facilities within the region. Therefore, the proposed project would not result in significant growth inducing impacts. The project would be served by utilities located on or adjacent to the project site. Expansion of existing utility and infrastructure systems would not be required to serve the project. Additionally, no new roadways would be required to provide local or regional access to the project site. There would be *no impact*.

b, c Potential to displace housing or people. The proposed project would not result in the removal of any residential units or the displacement of people. Therefore, no housing-related impacts would occur. There would be *no impact*.

5.14.3 Mitigation Measures

No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.15 PUBLIC SERVICES				
Would the project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	___	___	___	✓
Police protection?	___	___	___	✓
Schools?	___	___	___	✓
Parks?	___	___	___	✓
Other public facilities?	___	___	___	✓

5.15.1 Setting

Fire Protection. UCSB is located within the service area of the Santa Barbara County Fire Department, and fire prevention and suppression services are provided to the campus by that agency. Fire Station No. 17 is located on-campus along Mesa Road, and is about two-thirds of a mile northwest of proposed site. Fire Station No. 11 is located off-campus on Storke Road, about one and a half miles northwest of the project site.

The review and approval of campus development plans for compliance with fire protection-related requirements is the responsibility of the UCSB Fire Protection Division of the EH&S Department. The State Fire Marshall's Office has designated the on-campus Fire Protection Division as a "Campus Fire Marshall." The review of proposed development plans, such as access and hydrant locations, is also coordinated with the County of Santa Barbara Fire Department.

Police Protection. On-campus law enforcement services are provided by the University Police Department (UCPD). The UCPD is headquartered at the Public Safety Building on Mesa Road and there is a sub-station located in Isla Vista.

Schools. UCSB is located within the Goleta Union School District and the Santa Barbara High School District.

Parks. There are no public parks within the proposed project vicinity.

5.15.2 Checklist Responses

a. Potential to affect public services.

Fire Protection. The proposed OSEB project will comply with applicable codes and regulations including the California Fire Code (2007 Edition) and National Fire Protection Association regulations. There would be *no impact.*

The proposed project would not add any University affiliated student, faculty, or staff population to UCSB campus. The 26 CINMS and NOAA staff that would occupy the CINMS wing would be new to the campus and would come from existing facilities elsewhere within the region. This increase would not constitute a substantial long-term increase in the population of the project area and therefore fire protection services would not be affected and new or expanded fire protection facilities would not be required to serve the project. Likewise, project construction and would not result in a substantial short-term increase in the number of people located on the campus at any particular time. There would be *no impact* and no mitigation measures would be required.

The project would not result in a cumulatively considerable contribution to the significant cumulative impact on fire protection services that was identified in the 2008 LRDP Draft EIR (UCSB 2008b). The project would not result in the need for new fire protection staff, based on the County's minimum service standard of 1 firefighter per 4,000 people. There would be *no impact* and no mitigation measures would be required.

Police Protection. The proposed project would not result in a substantial increase in the number of people that would be located on campus or result in an increase in the number of service calls that would be received by the University Police Department. Therefore, police protection services would not be affected and new or expanded police facilities would not be required to serve the project. Additionally, the 2008 LRDP Draft EIR did not identify any significant cumulative impacts related to police protection. Therefore, the proposed project would not have a cumulatively considerable contribution to any such cumulative impacts. There would be *no impact*.

Schools. The proposed project would result in the addition of 26 CINMS and NOAA staff to the campus. However, these staff would come from existing facilities elsewhere within the region and would not generate a need for new or expanded schools. As the project would not generate new population in the region, it would not have a cumulatively considerable contribution to the significant cumulative impact on school facilities that was identified in the 2008 LRDP Draft EIR (UCSB 2008b). There would be *no impact.*

Parks. The proposed project would not result in region-wide population growth having the potential to result in impacts to existing park facilities. As the project would not generate new population in the region, it would not have a cumulatively considerable contribution to the significant cumulative impact on

recreational facilities that was identified in the 2008 LRDP Draft EIR (UCSB 2008b). There would be *no impact*.

5.15.3 Mitigation Measures

No mitigation measures are required.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.16 RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	—	—	—	✓
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	—	—	—	✓

5.16.1 Setting

UCSB has opportunities for passive recreation through the use of adjacent beaches, Goleta Beach park, and numerous open space courtyards and grassy areas. Active recreational opportunities are provided by UCSB's Recreation Center and associated playing fields. The UCSB Department of Physical Activities and Recreation offers numerous classes to the public as well as UCSB students, faculty, and staff members. There are no major recreational facilities located in the vicinity of the project site.

5.16.2 Checklist Responses

a, b. Potential impacts to recreational facilities and from the development of new facilities. There would not be a substantial increase in the campus population as a result of the proposed project; therefore there would not be impacts to recreation facilities. As the project would not generate new population in the region, it would not have a cumulatively considerable contribution to the significant cumulative impact on recreational facilities that was identified in the 2008 LRDP Draft EIR (UCSB 2008b). There would be *no impact*.

5.16.3 Mitigation Measures

No mitigation measures are required.

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

5.17.1 Setting

Background

Current traffic conditions in and immediately adjacent to the campus were assessed in the 2008 LRDP Draft EIR, based on traffic counts conducted in 2006 and 2007 (UCSB 2008b). Of the 41 study intersections, 28 roadway segments, and 14 freeway facilities studied, most were determined to be currently operating with acceptable levels of service (LOS) during the peak hour (5:00 – 6:00 p.m.), based on relevant thresholds. This includes the intersections in the immediate vicinity of the project site (i.e., the Mesa Road/Lagoon Road/Highway 217 roundabout and Lagoon Road/UCen Road), which are operating at LOS A.

UCSB provides a combination of surface parking lots and parking structures on campus. Parking spaces are designated by permit type. Faculty parking is designated by an "A" permit, staff by a "S" permit, and students and visitors by a "C" permit. Additionally, all visitors, students, and faculty/staff can purchase hourly parking permits for short-term parking needs. Coastal access parking is also available in Parking Structures 10 and 22 and in several surface lots.

Campus parking surveys were conducted during the 2006 and 2007 academic quarters to determine the utilization of the 5,300 non-residential on-campus parking spaces throughout the day, as well as in the adjacent Isla Vista neighborhood and the Goleta Beach Park (UCSB 2008b). Based on these surveys, 80 percent of parking spaces on the Main Campus were utilized during the peak parking period in Winter 2006 (i.e., on a Tuesday, Wednesday, or Thursday between 2:00 – 3:00 p.m.). When looking at only staff parking spaces, 85 percent were utilized on the Main Campus during this same period. Additionally, less than 1 percent of faculty and staff park in Isla Vista or Goleta Beach Park on a daily basis and over 95 percent reported to never park in these areas when on campus.

The campus has nearly 7 miles of bikeways, which provide access around the edge of campus, one east-west route through the center of campus, and two north-south routes. In 2005 a bicycle path was constructed (Broida Expressway Bicycle Trail) connecting an existing path on the east side of Lagoon Road, continuing into campus to connect with an east-west path into campus to the Library. The east-west path also connects with a roundabout to a bicycle path to the north and around the northern perimeter of campus. The 1990 LRDP Figure 23 shows the Campus's existing bicycle route network (see **Figure 5.17-1**).

Standards of Significance

Based on the significance criteria referred in the 2008 LRDP Draft EIR, impacts at on-campus intersections would be considered significant if the project would exceed LOS E while maintaining a balanced transportation system as described below:

- UC Santa Barbara shall maintain LOS E traffic operations during morning and afternoon peak hours as measured by average vehicle delay at on-campus intersections.
- UC Santa Barbara shall provide a balanced transportation system on campus in consideration of vehicular, bicycle, pedestrian, and transit mobility. If a proposed project causes an intersection to degrade to LOS F, improvements shall be identified to restore operations to LOS E or better conditions. The proposed improvements shall not conflict with pedestrian or bicycle facilities or degrade mobility for pedestrians or bicyclists traveling on campus.

Relevant Project Characteristics

There would be 1 UCSB staff and 26 CINMS and NOAA staff permanently occupying the new building. The UCSB staff would come from an existing location on campus and the 26 CINMS and NOAA staff would be new to the UCSB campus, but would be relocated from the Santa Barbara Harbor and elsewhere in the region. Their daily vehicle trips would be considered new to the UCSB campus and vicinity, but not to the region as a whole. The trip characteristics of these staff are considered comparable to those made by UCSB faculty and staff. Based on the trip generation rates for "off-campus faculty/staff" identified in the 2008 LRDP Draft EIR (UCSB 2008b), these staff would generate 119 daily trips and 11 p.m. peak hour trips (URS 2008).

Additionally, the educational programs that would be housed in the OCTOS building wing would allow the OCTOS program to serve upwards of 37,000 daily visitors annually, which would result in a net increase of approximately 22,000 visitors over the 15,000 visitors currently served. These visitors would arrive to campus primarily by bus. Up to 6 buses per day would be expected during off-peak hours to serve up to 180 K-12 students with 3 buses mid-morning and 3 buses mid-afternoon.

The existing bike path that crosses the site will be removed with the project to better serve the campus bike population by avoiding pedestrian conflicts that could occur with the project. This element of the project includes the removal of the path between the OSEB project site on the south and the Bren Building on the north. A recently constructed bike path just north of the Bren building will provide separated bike access from Lagoon Road into the interior of the Main Campus, linking to the campus bicycle network. *Additionally, Lagoon Road and UCen Road, which are Class III bike routes, will continue to provide shared bike access to the project site and vicinity.* Revised 1990 LRDP Figure 23 shows the Campus's bicycle route network with the removal of the above noted segment (see **Figure 5.17-2**).

5.17.2 Checklist Responses

a-b. Potential to increase traffic on roadways and intersections. There would be a short-term increase in traffic from construction vehicles and equipment entering and leaving the project site. The project site is located at the corner of Lagoon Road and UCen Road on the eastern edge of the Main Campus. Vehicles would park in a staging area located on the proposed project site. Construction traffic would not increase traffic on major campus roadways near the site, which are operating at acceptable levels of service. Impacts from construction traffic would be *less than significant*.

Based on a traffic analysis conducted for the proposed project, the project would result in a minor increase in traffic on roadways or at intersections on campus with the additional 11 p.m. peak hour traffic trips (see Appendix A-1). Under Existing and Year 2025 without Project Conditions, all intersections in the vicinity of the project site (the Mesa Road/Ocean Road, Mesa Road/University Plaza, Lagoon Road/Hwy. 217, and UCen Road/Lagoon Road intersections) are projected to operate at acceptable levels of service, based on Table 4.13-35 of the 2008 LRDP Draft EIR. Based on the additional traffic from the proposed project, all of these intersections are projected to continue to operate at acceptable levels of service with the addition of traffic from the project.[5] Therefore, based on the above significance criteria, the addition of traffic from the proposed project will not to have any significant impacts at the intersections. Further, as the proposed project would not result in any degradation of levels of service or delay, it would not constitute a cumulatively considerable contribution to the significant cumulative

[5] Other intersections were not studied, as the proposed project would not appreciably add to traffic volumes at other intersections and therefore would not have the potential to cause significant traffic impacts at these intersections.

traffic impacts identified in the 2008 LRDP Draft EIR. Impacts from project traffic would be *less than significant* and no mitigation measures are required.

c. Potential to affect air traffic patterns. The proposed project would not affect air traffic patterns. There would be *no impact* and no mitigation measures are required.

d. Potential to increase traffic hazards from project design. The proposed project is not projected to result in any change in traffic patterns. Overall, it would not add appreciably to on- or off-campus traffic. Additionally, there would be no changes to surrounding roadways with the project that would affect traffic patterns.

The addition of a school bus pull out on Lagoon Road would not substantially increase traffic hazards in the vicinity of the project site. Further, it will be designed in accordance with any relevant city and/or county standards for school bus pull out areas. There would be *no impact* and no mitigation measures are required.

e. Potential to result in inadequate emergency access. The proposed project would generate minimal new traffic and would not cause major roadways to be altered or obstructed during or after construction of the building. Therefore, the project would not have the potential to interfere with vehicle emergency access into or out of the project area. Emergency access to adjacent buildings would not change from the existing condition as a result of the proposed project. A service road on the site will remain with the project, but will be relocated slightly west to accommodate the proposed building and therefore it will be temporarily closed during construction. During construction, access to the Bio-II building and MSB would be available to emergency vehicles from Parking Lot #1, to the north and west of these buildings. There would be *no impact* and no mitigation measures are required.

f. Potential to result in inadequate parking capacity. The proposed project would slightly increase the demand for parking on the Main Campus, with the addition of 26 CINMS and NOAA staff to the campus. The new staff would be able to purchase staff parking permits and can park in all staff lots. As indicated above, parking utilization of staff parking lots on campus is at 85 percent and thus available remaining parking capacity exists to serve the new building occupants. Additionally, given the low percentage of UCSB staff that park in Isla Vista or Goleta Beach Park (less than 1 percent), it is highly unlikely that the proposed project would substantially affect parking conditions in these areas. There would be *no impact* and no mitigation measures would be required.

The proposed project would result in the relocation of the existing bicycle parking area on the site to the southwest corner of the project site. *This relocated parking area will replace the existing bicycle parking on the project site and provide for additional bicycle parking to serve the proposed OSEB. The existing parking area provides 78 bike racks and 12 bike lockers. The relocated area will replace those racks and lockers, plus provide for additional bike racks and lockers in accordance with the UCSB Bicycle System Improvements Policy standards (UCSB 2008c). According to these standards, an additional 7 new bike racks and 2 new lockers would be needed to serve the proposed OSEB.*[6] *At a minimum, the relocated bicycle parking area will provide for these additional racks and lockers.* Therefore, the proposed project would not result in a loss of bicycle parking and adequate bicycle parking would exist to serve the project. *Furthermore, this dedicated parking area will be accessible from the Class III bike route along UCen Road, which connects to the larger bicycle network, in accordance with UCSB Bicycle System*

[6] *These standards indicate that bicycle parking shall be provided for 25 percent of the buildings population, defined as faculty, staff, and student occupants. As the project would accommodate 27 staff a total of 7 new racks would be required. Likewise, the standards indicate that secured bicycle parking shall be installed for 5 percent of the building occupants, or 2 lockers, whichever is greater.*

Improvements Policy standards. There would be *no impact* and no mitigation measures would be required.

g. Potential to result in conflicts with alternative transportation. The project would not result in conflicts with alternative modes of transportation. The existing bike path that crosses the site will be removed with the project to better serve the campus bike population by avoiding pedestrian conflicts that could occur with the project. A recently constructed bike path just north of the Bren building will provide separated bike access from Lagoon Road into the interior of the Main Campus, linking to the campus bicycle network (see **Figures 5.17-1 and 5-17-2**). *Additionally, Lagoon Road and UCen Road, which are Class III bike routes, will continue to provide shared bike access to the project site and vicinity.* Signage will be posted directing bicyclists to ~~this permanent~~ *the separated* route into the campus from Lagoon Road. *This signage will also inform bicyclists that access is provided along the Class III bike routes along Lagoon Road and UCen Road*. Therefore, the proposed project will not affect bicycle access or any other alternative modes of transportation. There will be *no impact*.

5.17.3 Mitigation Measures

No mitigation measures are required.

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Figure 5.17-1. LRDP Figure 23 Exisitng Bicycle Route Network

Map Source:
LRDP Figure 23 provided by the University of California, Santa Barbara (UCSB).

OSEB Project
EA/IS/MND

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Figure 5.17-2. LRDP Figure 23 Post-Project Bicycle Route Network

Map Source:
LRDP Figure 23 provided by the University of California, Santa Barbara (UCSB).

OSEB Project
EA/IS/MND

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.18 UTILITIES AND SERVICE SYSTEMS				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	___	___	___	✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	___	___	✓	___
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	___	___	___	✓
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	___	___	___	✓
e) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	___	___	___	✓
f) Comply with applicable federal, state, and local statutes and regulations related to solid waste?	___	___	✓	___

5.18.1 Setting

Wastewater Treatment and Disposal

The Goleta Sanitary District (GSD) provides wastewater treatment service for UCSB. The GSD operates the GSD Wastewater Treatment Plant, which is located in Goleta, east of UCSB and southeast of the Santa Barbara Municipal Airport. The treatment plant has a design capacity of 9.7 million gallons per

day (MGD); however, the NPDES permit for the plant's ocean outfall sets a plant capacity limit of 7.64 MGD. On average, the daily flow into the treatment plant is 5.78 MGD (UCSB 2004 and UCSB 2008b).

UCSB has a contractual capacity ownership of 7.09 percent of the treatment plant's permitted capacity, which is equivalent to 0.542 MGD (UCSB 2008b). Based on metered flows at the treatment plant, UCSB sends an average of approximately 0.229 MGD of wastewater directly to the GSD (Dewey 2007). Based on current average flow and the University's ownership allocation, there is approximately 0.313 MGD of additional capacity for the University at the GSD Wastewater Treatment Plant.[7]

Water Supply

UCSB receives domestic water supplies from the Goleta Water District (GWD), which also serves most of Isla Vista and the Goleta Valley. Water service to UCSB is provided in accordance with GWD Permit No. 14 (Goleta Water District 1974) and the Water Reclamation Agreement between the Goleta Water District and the University of California (Goleta Water District 1991) which allots the campus a maximum of 778 acre-feet of water per year (AFY) potable water and 280 AFY reclaimed water. Under these two agreements the University is allowed to increase potable water use by 10 AFY (from 1991) to a maximum of 944.5 AFY. This maximum usage applies only to the Main, Storke, and West Campuses, excluding the Santa Catalina Residence Halls (UCSB 2008b).

Based on metered water use records, the University's current potable water use is approximately 529 AFY (Dewey 2007). However, annual potable water use averaged 558 AFY between 1999 and 2004 (UCSB 2008b). Therefore, based on this higher figure, the University has approximately 386.5 AFY available for future use based on the provisions of GWD Permit No. 14 and the Reclaimed Water Agreement. The University used an average of approximately 143 AFY reclaimed water between 1999 and 2004 (UCSB 2008b).

1990 LRDP Policy 30254.1 and 2008 Draft LRDP Policy PWK-1 require that the University not permit a project provided for in the LRDP land use plan until it has been demonstrated that adequate water and sewer services are available to supply the existing and proposed development (UCSB 1990a and UCSB 2008a).

Solid Waste Disposal

Solid waste that is generated on the UCSB campus is collected by a local waste hauler and recycler, Marborg Industries, and is transported to the Tajiguas Landfill for disposal. The Tajiguas Landfill is operated by the County of Santa Barbara, and is located approximately 20 miles west of the UCSB campus. The landfill accepts solid waste primarily from the City of Santa Barbara and unincorporated areas of the south coast of Santa Barbara County. The RWQCB and CIWMB approved an expansion of Tajiguas Landfill in 2003. It is estimated that the expansion provided approximately 18 years of disposal capacity (UCSB 2008b). The County continues to explore additional disposal options (Rodriguez 2007).

Relevant Project Characteristics

The OSEB project would not add any University affiliated student, faculty, or staff population to UCSB campus, as the 1 UCSB staff accommodated by the project will come from an existing location on Campus, which will not be backfilled. The 26 CINMS and NOAA staff that would occupy the CINMS

[7] According to the 2008 LRDP Draft EIR, UCSB's annual average wastewater flow directed to GSD for 2006 was approximately 0.19 MGD. Based on this average flow and the University's ownership allocation, a 0.35 MGD of remaining permitted capacity for the University at the GSD Wastewater Treatment Plant was identified (UCSB 2008b). Annual average wastewater flow data from 2007 is used above as it is greater than that from 2006 and results in a reduced remaining permitted capacity for the University at the GSD Wastewater Treatment Plant.

wing of the building would be new to the campus. There will be a staff kitchen and 6 new restrooms, containing 7 toilets, 1 urinal, and 1 shower, installed in the building. Additionally, a staff break room will have a sink. The wet exhibits and the classroom laboratory will have seawater facilities, but not sinks with domestic water.

5.18.2 Checklist Responses

a. Exceed wastewater treatment requirements. Wastewater that would be generated by the proposed project would be domestic sewage. Therefore, the project would not exceed wastewater treatment requirements that have been established by the Regional Water Quality Control Board. There would be *no impact*. No mitigation measures are required.

b. Potential to require expanded water or wastewater facilities.

Water Facilities. Potable water would be delivered to the proposed building from the existing and relocated service lines on and adjacent to the project site. Potable water would be used for the kitchen, restrooms, sinks and drinking fountains in the new building. The estimated domestic water increase associated with the operation of the new OSEB project would be approximately 2.3 AFY. Domestic water use resulting from the operation of the proposed OSEB was estimated using a water duty factor of 0.233 AFY for each 1,000 asf of floor area (Dewey 2007). The proposed building would require 9,730 asf of floor area. Since there is approximately 386.5 AFY of water available, this increase in water delivery would be accommodated by the existing infrastructure and no modifications to off-campus water infrastructure would be required. As there is adequate remaining water supply available to serve the project and other near-term development, the project would not have a cumulatively considerable contribution to the significant cumulative water supply impact that was identified in the 2008 Draft EIR (UCSB 2008b). Additionally, reclaimed water would be used to irrigate project landscape. The impact would be *less than significant*. No mitigation measures are required.

Wastewater Facilities. Plumbing from the kitchen, restrooms, sinks and drinking fountains in the new building would be connected to existing and relocated sewer piping on the site that currently serves the adjacent Bio-II building and MSB. There would be 27 occupants in the building. If there were a campus-wide increase in potable water use (approximately 2.3 AFY) from the proposed project and all of it were to be discharged to the campus sewer system, the project would result in wastewater flows of approximately 0.003 MGD (1,120 MGD/AFY x 2.3 AFY/1,000,000 gallons). This incremental increase in wastewater flow would be accommodated by treatment capacity that is available to the University at the GSD. Of the 0.313 MGD capacity remaining at UCSB, approximately 0.310 MGD of capacity at the wastewater treatment plant would remain for use by the University after the occupancy of the proposed building if there were an increase in use. The existing and relocated sewer lines at and adjacent to the project site would have the capacity for wastewater generated by the proposed project. The impact would be *less than significant*. No mitigation measures are required.

Due to the very small amount of wastewater that would be generated individually by the proposed project, it would not result in the use of a substantial portion of the remaining treatment capacity that is currently available to the University. Therefore, the project's incremental contribution to cumulative wastewater treatment capacity impacts is not cumulatively considerable, nor significant. It should also be noted that the 2008 LRDP Draft EIR did not identify significant cumulative impacts related to future increased wastewater flows to the Goleta Treatment Plant from UCSB and other growth (UCSB 2008b). Further, compliance with 1990 LRDP Policy 30254.1 and 2008 Draft LRDP Policy PWK-1 will ensure that future development provided for in the 1990 and 2008 LRDP land use plans will not be permitted by the University unless it has been demonstrated that adequate water and sewer services are available to supply existing and proposed development. There would be *no impact* and no mitigation measures are required.

c. Potential to require expanded storm water facilities. There are existing storm drains on and adjacent the site, which drain into the Pacific Ocean. The project-related increase in impervious surface area would result in a very slight increase in storm water runoff. There would be some relocation of existing storm water pipes under the site to allow for the building foundation. However, the project would connect to the existing storm drains on or immediately adjacent to the site. No expansion of storm water facilities would be required to serve the project. There would be *no impact* and no mitigation measures are required.

d. Potential to impact available water sources. T he estimated domestic water use by the proposed project would be approximately 2.3 AFY. After implementation of the proposed project, UCSB would still have approximately 284.2 AFY of water available under the provisions of GWD Permit No. 14. Therefore, domestic water service for the project would not result in a project-specific water use impact. See item b above related to cumulative water supply impacts.

Reclaimed water is currently used at the proposed project site for landscape irrigation. The proposed project area would be re-landscaped post-construction and would use the same or less amount of reclaimed water that it currently uses. The University has access to 280 AFY of reclaimed water and is using 143 AFY on average since 1994. There are adequate supplies of reclaimed water to meet the foreseeable demands of the proposed project. There would be *no impact* and no mitigation measures are required.

e, f. Potential impacts to solid waste management facilities. The proposed project would result in the short-term generation of construction waste, and long-term occupancy generated waste. Construction waste would be recycled to the maximum possible. Since there would be a minor increase in the campus population resulting from the new building, there would not be a substantial campus-wide increase in solid waste generation. The waste stream at the building would consist primarily of office materials that could be recycled, such as paper, office pack (envelopes, post-its, junk mail), and cardboard. Recycling containers would be placed in offices and reproduction areas of the building to collect recyclable office materials. The University has a Campus-wide recycling collection program to ensure maximum recycling on Campus. Currently, all campus municipal solid waste is collected by Marborg Industries and disposed of at Tajiguas Landfill in Santa Barbara County. Tajiguas landfill was expanded to increase its capacity for another 18 years and would not be impacted by waste generated from the proposed project. Impacts from construction and operational waste would be *less than significant* and no mitigation measures are required.

5.18.3 Mitigation Measures

No mitigation measures are required.

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

a. The proposed project does not support riparian or other sensitive habitat areas. The project would result in the removal of 7 non-native trees and other ornamental shrubs. If an active nest were located in the trees or shrubs at the start of construction activities, the project would have the potential to result in significant direct and/or indirect impacts to the birds or nests. With implementation of Mitigation Measure BIO-1, potential impacts to nesting birds would be reduced to a *less than significant* level.

As a result of past ground disturbing activities that have occurred in the project area, the potential for the project to impact significant cultural resources in disturbed soils is relatively low. However, given the location of the project site in an area with moderate/high sensitivity for buried cultural resources, there is the potential for disturbance of cultural resources associated with project construction activities in undisturbed soils, such as could occur with the deep pier excavations needed for a portion of the

foundation system. With the implementation of Mitigation Measure CR-1, which addresses the application of relevant LRDP cultural resource policies to the proposed project, potential impacts to cultural resources would be reduced to a *less than significant* level.

b. The proposed building project would generate minimal additional campus-wide wastewater and demand for additional water services and would not result in cumulative impacts, as demonstrated in Section 5.18.

The proposed project would not generate a substantial amount of additional traffic. Therefore, it would not contribute a substantial amount of traffic to off-campus roadways and intersections that are projected to operate at unacceptable levels of service under cumulative conditions, as demonstrated in Section 5.17.

The proposed project would not result in public service impacts, and would not result in a substantial increase in on-campus population. Therefore, the project would not substantially contribute to cumulative public service impacts, as demonstrated in Sections 5.15 and 5.16.

c. The proposed project would not result in significant impacts regarding air quality, hazards and hazardous materials, noise, and traffic safety.

5.20 FISH AND GAME DETERMINATION

Based on the information above, there is no evidence that the project has a potential for a change that would adversely affect wildlife resources or the habitat upon which the wildlife depends. The presumption of adverse effect set forth in 14 CCR 753.5 (d) has been rebutted by substantial evidence.

___Yes (Certificate of No Effect)

__✓__ No (Pay fee)

6.0 MITIGATION MEASURES

AIR QUALITY

AQ-1: During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

AQ-2: During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the later morning and after work is completed for the day and whenever wind exceeds 15 miles per hour.

AQ-3: Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation.

AQ-4:

- ~~Heavy duty diesel powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) should be utilized whenever possible;~~

- *All portable construction equipment shall be registered with the state's portable equipment registration program OR permitted by the District by September 18, 2008.*
- *Diesel construction equipment meeting the California Air Resources Board's Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting Tier 2 or higher emission standards should be used to the maximum extent feasible.*
- The engine size of construction equipment shall be the minimum practical size;
- The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at one time;
- Construction equipment shall be maintained in tune per the manufacturer's specifications;
- Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines; and
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
- *Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed on equipment operating on-site.*
- *Diesel powered equipment should be replaced by electric equipment whenever feasible.*
- *Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used whenever possible.*
- *Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.*

Plan Requirements: All requirements shall be shown on Construction Documents.

Timing: Condition shall be adhered to throughout all grading and construction periods.

MONITORING: UCSB Office of Campus Planning and Design shall ensure measures are on plans. Design and Construction Services inspectors shall spot check, and shall ensure compliance on-site. APCD inspectors shall respond to nuisance complaints.

BIOLOGICAL RESOURCES

BIO-1: Prior to the initiation of ground-disturbing activities and the removal of trees during the nesting season for sensitive birds (February 15 through August 31) a biological survey of the shrubs and trees shall be conducted by a qualified biologist within two weeks of construction to prevent impacts to nesting sensitive bird species. If active raptor nests or nests of any other birds protected by state or federal law are located, then protective fencing should be installed and all construction work must be conducted at least 200 feet from the nest, or greater, as determined by a qualified biologist in consultation with CDFG. If active nests are located and a tree or shrub is scheduled for removal or alteration, these activities must occur after the birds have fledged or between September 1 and January 31, whichever is later.

Plan Requirements: All requirements shall be shown in bid documents and on demolition and grading plans.

Timing: Condition shall be adhered to two weeks prior to any ground breaking activities. To avoid construction conflicts with nesting birds consideration should be given to removing on-site trees and shrubs slated for removal prior to the start of the nesting season for sensitive birds (February 15 through August 31).

MONITORING: UCSB Office of Campus Planning and Design shall ensure measures are in bid documents and on plans. The Design and Construction Services project manager shall ensure survey is performed and compliance with survey results is met.

CULTURAL RESOURCES

CR-1 A qualified archaeologist and a local Native American will monitor all deep excavation activities (i.e., those at 5 feet below the ground surface and deeper) to identify any cultural resources that may be encountered during such activities, in accordance with 1990 LRDP Policy 30244.5 and 2008 Draft LRDP Policy ARC-4. While the project site is not located on a known archaeological site, it is within an area that has moderate/high sensitivity for containing buried cultural resources and has not been previously tested, therefore these policies should apply to the proposed project. The schedule for monitoring will be established during a pre-construction consultation with the monitors, construction contractor, and UCSB staff. Additionally, in accordance with 1990 LRDP Policy 30244.5 and 2008 Draft LRDP Policy ARC-5, in the event an archaeological resource is encountered during project construction, all earth disturbing work will be temporarily suspended or redirected until the nature and significance of the find is evaluated and impacts mitigated through data recovery and recordation.

Plan Requirements: All requirements shall be shown in bid documents and on demolition and grading plans.

Timing: Condition shall be adhered to throughout all grading and construction periods.

MONITORING: UCSB Office of Campus Planning and Design shall ensure measures are on bid documents and plans.

GEOLOGY AND SOILS

GEO-1: The following grading and erosion control practices shall be included in the proposed project's erosion control plan and be implemented at the project site for the entire duration of construction.

a. If grading occurs during the rainy season (November through March), sediment traps, barriers, covers or other methods shall be used to reduce erosion and sedimentation.

b. A site-specific erosion control and landscape plan shall be prepared for all new construction.

c. Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm water runoff.

d. Grading operations shall be conducted so as to prevent damaging effects of sediment production and dust on site and on adjoining properties.

e. Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area shall be fenced to define project boundaries.

f. Temporary mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities.

g. Sediment traps, silt fences, straw bales, or other similar sediment control measures shall be installed before clearing and grading operations begin.

Plan requirements: The project manger from Design and Construction Services shall ensure the erosion control measures including all best management practices shall be included in project plans, contract documents, and the erosion control plan prior to construction. The project manager shall ensure best management practices are in place during the entire length of construction.

Timing: Erosion control measures shall be in project plans, contract documents, and the erosion control plan prior to construction and best management practices are in place during the entire length of construction.

MONITORING: The project manager from Design and Construction shall monitor the project site during the entire length of construction to ensure best management practices are in place and are effective. The project manager shall report to UCSB planning staff.

HYDROLOGY AND WATER QUALITY

The OSEB project has the potential to result in erosion and sedimentation impacts. Mitigation Measure GEO-1 would reduce short-term water quality impacts to a less-than-significant level.

NOISE

NOISE-1: New heating, ventilation, and other noise-generating equipment shall be properly shielded to minimize noise generation. Additionally, such equipment shall be adequately maintained in proper working order so that noise levels emitted by such equipment remain minimal.

Plan Requirements: Specifications for shielding shall be included in all contract documents and project plans.

Timing: Shielding shall be implemented during the construction phase.

MONITORING: The project manager from Design and Construction Services shall ensure shielding has been installed during construction. Project manager from Design and Construction Services shall ensure that equipment is adequately maintained in proper working order during project operation.

NOISE-2: To minimize the effects of construction-related noise impacts to surrounding buildings the timing of construction activities that would result in noise levels that would cause indoor noise levels to exceed standards (52 dBA for classrooms and 45 dBA for residential) (i.e. heavy equipment use for site grading and demolition, etc.) shall be coordinated with the Department Management Services Officers of affected Departments. The purpose of this coordination is to, if necessary, facilitate actions that will minimize the effects of peak construction noise impacts. These actions may include, but are not limited to: alerting adjacent campus building managers and/or occupants of the construction schedule, scheduling construction/demolition activities to occur when classes are not in session; temporarily rescheduling classes; or providing alternative meeting locations for classes that are adversely affected by construction activities.

Plan Requirements: Specifications shall be included in all contract documents and project plans. Construction contractors shall implement scheduling constraints during the construction phase.

Timing: Specifications shall be included in all contract documents and plans prior to construction and scheduling construction to reduce construction phase noise impacts to the extent feasible.

MONITORING: The project manager from Design and Construction Services shall periodically monitor construction site and coordinate with faculty and staff in surrounding buildings.

NOISE-3: The Design and Construction Services project manager and the Department Management Services Officers of affected Departments shall be provided with the name(s) and phone number(s) of the construction site foreman or other individuals who have the authority to respond to complaints regarding excessive noise or vibration levels.

Plan Requirements: Information shall be provided to the Design and Construction Services project manager in contract specification documents. The project manager's contact information (name and phone number) shall be posted on-site to address complaints.

Timing: Information shall be provided prior to construction and be implemented during the construction phase.

MONITORING: The project manager from Design and Construction Services shall ensure he/she has contact information prior to start of construction and that contact information is shared with the Department Management Services Officers.

NOISE-4: Stationary construction equipment that results in noise levels in excess 65 dBA shall be located as far away from noise sensitive receptors as possible. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains or other similar devices.

Plan Requirements: The equipment area with appropriate acoustic shielding shall be designated on building and grading plans.

Timing: Equipment and shielding shall remain in the designated location throughout construction activities.

MONITORING: Project managers from Design and Construction Services shall perform site inspections to ensure compliance.

NOISE-5: School buses arriving at the site will not be allowed to idle for excessive periods. Signage at the bus drop-off location shall be installed to strongly discourage the idling of buses during drop-off and/or pick up of children.

Plan Requirements: Signage specifications shall be included in all contract documents and project plans.

Timing: Signage shall be installed prior to building occupancy and shall remain in the designated location throughout project operation.

MONITORING: Project managers from Design and Construction Services shall perform site inspections to ensure compliance.

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8.0 DOCUMENT PREPARATION

UC Santa Barbara

Shari Hammond	Senior Planner Office Campus Planning and Design University of California, Santa Barbara
Ray Aronson	Associate Director Design and Construction Services University of California, Santa Barbara

URS Corporation

John Chamberlain	Project Director, NEPA Project Manager
Ann Sansevero	CEQA Project Manager
Ana Hudson	Local Project Coordinator
Nayan Amin	Transportation
Craig Woodman	Archaeology
John Davis	Biological Resources
Beth Anna Cornett	Aesthetics and Project Assistance
Lisa Huntsberry and Bonnie Ladd	Graphics
Rema Chazbek	Production and Project Assistance

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9.0 RESPONSES TO COMMENTS ON THE DRAFT IS/MND

The 30-day CEQA public review and comment period for the Ocean Science Education Building project was from July 28, 2008, through August 26, 2008. Copies of the Draft IS/MND were distributed to interested State agencies by the Governor's Office of Planning and Research – State Clearinghouse and Planning Unit, and copies of the Draft IS/MND were available at UCSB and local libraries. This section identifies the comment letters received and summarizes the text changes made in response to comments.

9.1 PUBLIC COMMENTS RECEIVED

Six comment letters were received during the public comment period. The following agencies submitted comments during the comment period regarding the Draft IS/MND:

1. California Department of Toxic Substances Control
2. Santa Barbara County Air Pollution Control District
3. County of Santa Barbara Planning and Development
4. County of Santa Barbara Fire Department
5. Santa Barbara Bicycle Coalition
6. AS B.I.K.E.S Committee

A copy of each comment letter and lead agency response is provided in Appendix A-2 of the Final IS/MND.

9.2 TEXT CHANGES

Text changes were made to pages 1-5, 1-6, 2-4, 2-5, 5-13, 5-14, 5-64, 5-65, 5-66, 6-1, 6-2, and 7-3. Please refer to those pages for the specific text changes. New text is *underlined* and deleted text is ~~striken~~. A brief summary of the text changes is provided below.

The need to revise 1990 LRDP Figures 15 and 23, which depict the bicycle network, as part of the proposed 1990 LRDP amendment for the proposed project was added to pages 1-5, 1-6, and 2-5. The amended 1990 LRDP Figure 23 was already included in the Draft IS/MND, as Figure 5.17-2. Corresponding revisions would also be made on 1990 LRDP Figure 15.

As a result of a number of public comments related to bicycle parking and routing received during the public review period, a number of text changes were made to clarify the provisions for bicycle parking and access with the proposed project. These clarifications were made on pages 2-4, 2-5, 5-64, 5-65, 5-66, and 7-3. In particular, conformance with the UCSB Bicycle System Improvements Policy standards related to bicycle parking and access were specifically described on pages 5-64 through 5-66 (UCSB 2008c).

Air Quality mitigation measure AQ-4 was revised in response to recommendations made from the Santa Barbara County Air Pollution Control District during the public comment period. These changes were made on Pages 5-13, 5-14, 6-1, and 6-2.

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10.0 MITIGATION MONITORING AND REPORTING PLAN

Public Resources Code Section 21081.6 requires the lead agency approving a project adopt a Mitigation Monitoring and Reporting Plan for the changes to the project which it has adopted or made a condition of project approval in order to ensure compliance during project implementation. The following Mitigation Monitoring and Reporting Plan is designed to ensure implementation of the project-specific mitigation measures called for in this Final IS/MND for the Ocean Science Education Building project.

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OCEAN SCIENCE EDUCATION BUILDING PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

September 2008

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
Air Quality Project Generated Mitigation Measures:						
AQ-1	During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used to prevent dust from leaving the site and to create a crust after each day's activities cease.	Incorporated into Contract Documents and Grading and Building Plans	Construction Contractor	Construction Phase	Construction Phase	D&CS Project Manager
AQ-2	During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the later morning and after work is completed for the day and whenever wind exceeds 15 miles per hour.	Incorporated into Contract Documents and Grading and Building Plans	Construction Contractor	Construction Phase	Construction Phase	D&CS Project Manager
AQ-3	Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation.	Incorporated into Contract Documents and Grading and Building Plans	Construction Contractor	Construction Phase	Construction Phase	D&CS Project Manager
AQ-4	• All portable construction equipment shall be registered with the state's portable equipment registration program OR permitted by the District by September 18, 2008; • Diesel construction equipment meeting the California Air Resources Board's Tier 1 emission standards for off road heavy duty diesel engines shall be	Incorporated into Contract Documents and Grading and Building Plans	Construction Contractor	Construction Phase	Construction Phase	D&CS Project Manager

OCEAN SCIENCE EDUCATION BUILDING PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

September 2008

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
	used. Equipment meeting Tier 2 or higher emission standards should be used to the maximum extent feasible; • The engine size of construction equipment shall be the minimum practical size; • The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at one time; • Construction equipment shall be maintained in tune per the manufacturer's specifications; • Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines; • Catalytic converters shall be installed on gasoline-powered equipment, if feasible; • Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed on equipment operating on site;					

OCEAN SCIENCE EDUCATION BUILDING PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

September 2008

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
	• Diesel powered equipment should be replaced by electric equipment whenever feasible; • Idling of heavy duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used whenever possible; and • Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.					

OCEAN SCIENCE EDUCATION BUILDING PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

September 2008

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
Biological Resources Project Generated Mitigation Measures:						
BIO-1	Prior to the initiation of ground-disturbing activities and the removal of trees during the nesting season for sensitive birds (February 15 through August 31) a biological survey of the shrubs and trees shall be conducted by a qualified biologist within two weeks of construction to prevent impacts to nesting sensitive bird species. If active raptor nests or nests of any other birds protected by state or federal law are located, then protective fencing should be installed and all construction work must be conducted at least 200 feet from the nest, or greater, as determined by a qualified biologist in consultation with CDFG. If active nests are located and a tree or shrub is scheduled for removal or alteration, these activities must occur after the birds have fledged or between September 1 and January 31, whichever is later.	Incorporated into bid documents and Construction Contracts. Shown on demolitions and grading plans A qualified biologist will be hired by the contractor to conduct survey and prepare a report.	Qualified Biologist hired by the contractor will perform survey and prepare report.	Pre Site Preparation and Pre-Construction Phase.	Pre Site Preparation and Pre-Construction Phase.	D&CS Director and Campus Planning and Design Planner
Cultural Resources Project Generated Mitigation Measures:						
CR-1	A qualified archaeologist and a local Native American will monitor all deep excavation activities (i.e., those at 5 feet below the ground surface and deeper) to identify any cultural resources that may	Incorporated into bid documents and Construction Contracts.	Qualified Archaeologist hired by the construction contractor will	Construction Phase, all deep excavation activities	Construction Phase, all deep excavation activities	D&CS Director and Campus Planning and Design

OCEAN SCIENCE EDUCATION BUILDING PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

September 2008

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
	be encountered during such activities, in accordance with 1990 LRDP Policy 30244.5 and 2008 Draft LRDP Policy ARC-4. While the project site is not located on a known archaeological site, it is within an area that has moderate/high sensitivity for containing buried cultural resources and has not been previously tested, therefore these policies should apply to the proposed project. The schedule for monitoring will be established during a pre-construction consultation with the monitors, construction contractor, and UCSB staff. Additionally, in accordance with 1990 LRDP Policy 30244.5 and 2008 Draft LRDP Policy ARC-5, in the event an archaeological resource is encountered during project construction, all earth disturbing work will be temporarily suspended or redirected until the nature and significance of the find is evaluated and impacts mitigated through data recovery and recordation.	Shown on demolitions and grading plans. Construction contractor will hire a qualified archeologist to monitor ground disturbing activities.	perform monitoring and prepare report.			Planner
Geology & Soils Project Generated Mitigation Measures:						
GEO-1	The following grading and erosion control practices shall be included in the proposed project's erosion control plan and be implemented at the project site for the entire duration of construction.	Incorporated into Contract Documents and Grading and Building Plans	Construction contractor	Site preparation and construction phases	Site preparation and construction phases	D&CS Project Manager

OCEAN SCIENCE EDUCATION BUILDING PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

September 2008

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
	a. If grading occurs during the rainy season (November through March), sediment traps, barriers, covers or other methods shall be used to reduce erosion and sedimentation.			Construction		
	b. A site-specific erosion control and landscape plan shall be prepared for all new construction.			Pre-Construction		
	c. Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm water runoff.			Construction		
	d. Grading operations shall be conducted so as to prevent damaging effects of sediment production and dust on site and on adjoining properties.			Construction		
	e. Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area shall be fenced to define project boundaries.			Construction and Pre-Construction		
	f. Temporary mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities.			Construction		
	g. Sediment traps, silt fences, straw bales, or other similar sediment			Construction		

OCEAN SCIENCE EDUCATION BUILDING PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

September 2008

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
	control measures shall be installed before clearing and grading operations begin.					
Noise Project Generated Mitigation Measures:						
NOISE-1	New heating, ventilation, and other noise-generating equipment shall be properly shielded to minimize noise generation. Additionally, such equipment shall be adequately maintained in proper working order so that noise levels emitted by such equipment remain minimal.	Incorporated into all Contract Documents and project plans	Construction contractor in coordination with D&CS project manager and long-term Facilities Management Staff	Construction and operation phase	Construction phase and operation phase	D&CS project manager and Facilities Management Staff
NOISE-2	To minimize the effects of construction-related noise impacts to surrounding buildings the timing of construction activities that would result in noise levels that would cause indoor noise levels to exceed standards (52 dBA for classrooms and 45 dBA for residential) (i.e. heavy equipment use for site grading and demolition, etc.) shall be coordinated with the Department Management Services Officers of affected Departments. The purpose of this coordination is to, if necessary, facilitate actions that will minimize the effects of peak construction noise impacts. These actions may include, but are not limited	Incorporated into planning and Contract Documents	Construction contractor in coordination with D&CS project manager	Site preparation and construction	Site preparation and construction	D&CS project manager

OCEAN SCIENCE EDUCATION BUILDING PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

September 2008

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
	to: alerting adjacent campus building managers and/or occupants of the construction schedule, scheduling construction/demolition activities to occur when classes are not in session; temporarily rescheduling classes; or providing alternative meeting locations for classes that are adversely affected by construction activities.					
NOISE-3	The Design and Construction Services project manager and the Department Management Services Officers of affected Departments shall be provided with the name(s) and phone number(s) of the construction site foreman or other individuals who have the authority to respond to complaints regarding excessive noise or vibration levels.	Incorporated into planning and Contract Documents	Construction contractor in coordination with the D&CS Project Manager	Site preparation and construction	Site preparation and construction	D&CS project manager
NOISE-4	Stationary construction equipment that results in noise levels in excess 65 dBA shall be located as far away from noise sensitive receptors as possible. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains or other similar devices.	Incorporated into Contract Documents	Construction contractor	Site preparation and construction	Site preparation and construction	D&CS project manager
NOISE-5	School buses arriving at the site will not be allowed to idle for excessive periods. Signage at the bus drop-off location shall be installed to strongly discourage the	Incorporated into all Contract Documents and project plans	Construction contractor	Construction phase	Construction phase and on-going during project	D&CS project manager

OCEAN SCIENCE EDUCATION BUILDING PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

September 2008

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
	idling of buses during drop-off and/or pick up of children.				operation to ensure signage is maintained	

*D&CS: Design and Construction Services

Appendix A-1
Traffic Analysis

Date:	May 16, 2008
To:	Ann Sansevero, URS Corporation
From:	Nayan Amin, URS Corporation
Subject:	**University of California Santa Barbara Ocean Science Education Building – Traffic/Transportation Analysis**

This technical memorandum summarizes the traffic analysis conducted to determine if any significant impacts would result from the addition of the projected traffic from the proposed Ocean Science Education Building Project to be located within University of Santa Barbara Campus (UCSB). The proposed project is located north of the intersection of Lagoon Road and UCen Road. A Traffic/Transportation analysis for UCSB was conducted and documented in the Vision 2025 UCSB LRDP EIR. The report analyzed 41 study intersections, 28 roadway segments and 14 freeway facilities performance standards during the p.m. peak hour. At the time the EIR was prepared, the Ocean Science Education Building Project was contemplated as part of the growth and development within the LRDP and consequently, the LRDP Draft EIR traffic impact analysis encompasses traffic from the proposed project. This additional analysis was conducted to determine if the addition of the traffic from the proposed project alone would result in significant impacts on Existing and Year 2025 Conditions at the study intersections evaluated in the UCSB LRDP EIR.

Trip Generation and Trip Distribution

The proposed Ocean Science Education Building would accommodate approximately 26 employees. The vehicle trip generation of the Ocean Science Education Building Project was estimated based on the trip generation rates for off-campus employees given in the table 4.13-28 of the Transportation and Circulation section of Vision 2025 UCSB LRDP EIR. Based on the trip generation rates, it is projected that the proposed project would generate approximately 119 daily vehicle trips, with 8 trips occurring during the a.m. peak hour and 11 trips occurring during the p.m. peak hour.

Based on the vicinity and location of the project site and by an assessment of the existing and projected traffic patterns, the following intersections were considered in the project-level impact evaluation conducted for the proposed project:

1. Mesa Road/Ocean Road (Int. No. 35 of UCSB LRDP EIR)
2. Mesa Road/University Plaza (Int. No. 36 of UCSB LRDP EIR)
3. Lagoon Road/Hwy. 217 (Int. No. 37 of UCSB LRDP EIR)
4. UCen Road/Lagoon Road (Int. No. 41 of UCSB LRDP EIR)

55 South Market St. Suite 1500
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All the intersections identified above are located on the campus and are evaluated as on-campus intersections in the Vision 2025 UCSB LRDP EIR. The proposed project would not appreciably add to traffic volumes at other intersections studied in the Vision 2025 UCSB LRDP EIR and therefore would not result in significant impacts at these other intersections.

Year 2025 with Ocean Science Education Building Project Conditions

Under Existing and Year 2025 without Project Conditions, all of the above intersections are projected to operate at acceptable levels of service, based on Table 4.13-35 of the Vision 2025 UCSB LRDP EIR. Based on the trip generation and trip distribution, it is projected that the proposed project would generate approximately 11 trips during the p.m. peak hour. The addition of 11 trips would not have any significant impacts at the study intersections, as further described below.

Based on the significance criteria referred in section 4.13.2.1 of the Vision 2025 UCSB LRDP EIR, impacts at intersections evaluated as on-campus intersections would be considered significant if the project would exceed LOS E for an on-campus intersection while maintaining a balanced transportation system as described below:

- UC Santa Barbara shall maintain LOS E traffic operations during morning and afternoon peak hours as measured by average vehicle delay at on-campus intersections.
- UC Santa Barbara shall provide a balanced transportation system on campus in consideration of vehicular, bicycle, pedestrian, and transit mobility. If a proposed project causes an intersection to degrade to LOS F, improvements shall be identified to restore operations to LOS E or better conditions. The proposed improvements shall not conflict with pedestrian or bicycle facilities or degrade mobility for pedestrians or bicyclists traveling on campus.

Based on the number of trips the proposed project is projected to generate, all intersections evaluated are projected to continue to operate at acceptable levels of service. Therefore, based on the above significance criteria, the addition of the traffic from the proposed project will not to have any significant impacts at the intersections. Further, as the proposed project would not result in any degradation of levels of service or delay, it would not constitute a cumulatively considerable contribution to the significant cumulative traffic impacts identified in the Vision 2025 UCSB LRDP EIR.

Traffic Patterns and Design Features

The proposed project is not projected to result in any change in traffic patterns. Overall, it would not add appreciably to on- or off-campus traffic. Additionally, there would be no changes to surrounding roadways with the project that would affect traffic patterns.

The addition of a school bus pull out on Lagoon Road would not substantially increase traffic hazards in the vicinity of the project site. Further, it will be designed in accordance with any relevant city and/or county standards for school bus pull out areas.

Conclusion

The proposed Ocean Science Education Building project is projected to generate approximately 119 vehicle daily trips, with 8 trips occurring during the a.m. peak hour, and 11 trips occurring during the p.m. peak hour. Based on the standards of significance stated in the section 4.13.2.1 Vision 2025 UCSB LRDP EIR, it is projected that the addition of the traffic from the proposed project will not have any significant impacts at the study intersections and no mitigation measures would be required. The proposed project is also projected not to result in any change in the traffic patterns, nor will it result in traffic hazards.

Appendix A-2
Public Comments and Responses

Department of Toxic Substances Control

Maureen F. Gorsen, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

August 21, 2008

Ms. Shari Hammond (shari.hammond@planning.ucsb.edu)
University of California Santa Barbara
Office of Campus Planning and Design
Santa Barbara, CA 93106

MITIGATED NEGATIVE DECLARATION FOR OCEAN SCIENCE EDUCATION BUILDING, SANTA BARBARA, SANTA BARBARA COUNTY, CALIFORNIA (SCH 2008071128)

Dear Ms. Hammond:

The Department of Toxic Substances Control (DTSC) has reviewed the Mitigated Negative Declaration (MND), dated July 28, 2008, for the subject project. The due date to submit comments is August 26, 2008. Based on a review of the MND, DTSC would like to provide the following comments:

1. The project consists of construction of the Ocean Sciences Education Building.

2. Since demolition of an old structure is proposed at the site, lead based paint and organochlorine pesticides from termiticide applications may be potential environmental concerns at the site. DTSC recommends that these environmental concerns be investigated and possibly mitigated, in accordance with DTSC's *"Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Result of Lead From Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers, dated June 9, 2006."*

3. There is a leaking underground storage tank (LUST) site locate about 1,500 feet northwest of the site. Contaminants associated with the LUST may have the potential to migrate to the site via groundwater and/or soil gas pathways. DTSC recommends that these environmental concerns be investigated using DTSC's *"Advisory – Active Soil Gas Investigations, dated January 2003"* and DTSC's *"Vapor Intrusion Guidance Document – Final Interim*, dated December 15, 2004."

4. The site is located about 600 feet to the west of a Former Naval Air Station. Unexploded ordinances and elevated levels of metals, volatile organic compounds (VOCs) and semi-VOCs could potentially be present in the soil at the site. DTSC recommends that an environmental review, such as a Preliminary Endangerment Assessment (PEA), be conducted to determine whether there has been or may have been a release or threatened release of hazardous material.

5. Since the project is school site related, University of California, Santa Barbara (UCSB) is invited to participate in DTSC's School Property Evaluation and Cleanup Program. If UCSB elects to proceed to conduct a Preliminary Endangerment Assessment (PEA) at the site, it should enter into a Voluntary Cleanup Agreement (VCA) with DTSC to oversee the preparation of the PEA. For additional information on the VCA Program, please visit DTSC's web site at www.dtsc.ca.gov.

If you would like to discuss this matter further, please contact me at (818) 717-6617.

Sincerely,

Ken Chiang
Senior Hazardous Substances Scientist
Brownfields and Environmental Restoration Program

cc: State Clearinghouse (State.clearinghouse@opr.ca.gov)
Office of Planning and Research

Mr. Guenther W. Moskat (Gmoskat@dtsc.ca.gov)
CEQA Tracking Center – Sacramento HQ

School Reading File – Chatsworth (cwherry@dtsc.ca.gov)

CEQA Reading File – Chatsworth

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September 18, 2008

Ken Chiang
Senior Hazardous Substances Scientist
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, CA 91311

Re: Response to Comments on Ocean Science Education Building Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration, University of California, Santa Barbara

Dear Mr. Chiang:

Thank you for your comments on the Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration (Draft EA/IS/MND) for the Ocean Science Education Building.

Regarding your comments about lead based paints, termiticides, and polychlorinated biphenyls (PCBs); it is standard University practice to conduct surveys for lead-based paints and asbestos-containing materials prior to the demolition of any structure on the UCSB campus. These surveys are conducted by the Design and Construction Services Asbestos & Lead Program, to ensure compliance with the California Code of Regulations Title 8, Sections 1529 (Asbestos) and 1532.1 (Lead). The wood portion of the structure is above grade, fairly new, and installed over a paved area. Therefore, it is unlikely that trenching and termiticide applications were performed during the wood structure installation. Termiticides will be included in the pre-demolition surveys to confirm this preliminary finding. All PCB transformers were removed from the campus in the late 1980's, according to the UCSB Environmental Health & Safety (EH&S) PCB Management Program. The referenced DTSC's *Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Result of Lead From Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers, dated June 9, 2006*, will be used in these surveys, as relevant. Further, if any contaminated materials are found during these surveys they will be disposed of in accordance with all applicable regulations and DTSC guidelines.

To our knowledge there is no leaking underground storage tank (LUST) located 1,500 feet northwest of the proposed project site. This may be a reference to United States Army Corps of Engineer Sites #4 and #5 near the Life Sciences Building (LSB). LUST contamination was not encountered during construction of the LSB project. Soil contamination was encountered during the construction of the Psychology Addition, just west of LSB. The contaminated soil was remediated.

Regarding other potential sources of contamination, the Draft EA/IS/MND provides a review of known

information from readily available agency databases. The Draft EA/IS/MND also indicated that there is no known contamination of the proposed OSEB project site itself, based on information provided by the UCSB EH&S Office. That office has further indicated that no contamination or unexploded ordinances have been found on this portion of the UCSB campus. Additionally, a plot plan of the Naval Air Station dated August 24, 1945 indicates that there were no structures or roads in the area of the proposed project. (A copy of this plot plan is available at the UCSB EH&S Office, PW Drawing No. 403.3.) However, in accordance with the U.S. Department of Commerce Real Property Management Manual (July 2005) and customary due-diligence by the National Oceanic and Atmospheric Administration, a Phase I Environmental Site Assessment (ESA) would be prepared as part of the proposed action to support an "innocent landowner" defense under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). All the recommendations of the ESA will be implemented, including the need for Phase 2 sampling, analysis, remediation, etc. Therefore, the Draft EA/IS/MND concludes that impacts would be less than significant.

Please do not hesitate to contact me with any questions or comments at (805) 893-3796 or by email at shari.hammond@planning.ucsb.edu.

Sincerely,

Shari Hammond

Shari Hammond
Senior Planner

cc: Ali Aghayan, Environmental Health and Safety
Ray Aronson, Design and Construction Services
Tye Simpson, Campus Planning and Design

Santa Barbara County
Air Pollution Control District

August 8, 2008

Shari Hammond, Senior Planner
University of California, Santa Barbara
Office of Campus Planning and Design
Santa Barbara, California 93106-1030

Re: Notice of Availability, Draft EA/Initial Study/MND for the Ocean Science Education Building

Dear Shari:

The Santa Barbara County Air Pollution Control District (APCD) appreciates the opportunity to review and provide comments on the Draft Environmental Assessment (EA)/Initial Study/Mitigated Negative Declaration (MND) for the Ocean Science Education Building (OSEB). The proposed two-story OSEB would total 15,284 gross square feet, and would be located on a 1.1-acre site at the northwest corner of UCen Road and Lagoon Road on the Main UCSB Campus. One wing would accommodate the UCSB Marine Science Institute's Outreach Center for Teaching Ocean Sciences and the other wing would serve as a headquarters for NOAA's Channel Islands National Marine Sanctuary.

APCD staff concurs with the findings of the Draft EA/Initial Study/Mitigated Negative Declaration, and offers the following comments:

(1) **Asbestos Notification Requirements for Demolition Activities:** The APCD enforces Federal laws which control work practices during the demolition and renovation of institutional, commercial, or industrial structures. It appears that the demolition of the existing storage building at the project site is subject to asbestos notification. A notification form and instructions on how to fill it out are available from the Santa Barbara County APCD website at www.sbcapcd.org.

(2) **Mitigation Measures for Air Quality – Diesel –powered Construction Equipment:** Section 6.4.4 of the Draft EA and Section 5.5.3 (AQ-4) of the MND offer mitigation measures for heavy-duty diesel-powered construction equipment. We would like to point out that the APCD's list of recommended mitigations for this type of equipment has been recently updated. These updated mitigation measures are listed in Section 5.2 of the APCD's Scope and Content of Air Quality Sections in Environmental Documents, updated June 2008, available for download at www.sbcapcd.org/apcd/landuse.htm We

suggest that these updated mitigation measures be included in both the EA and the MND for the project and that these measures be implemented during project construction.

Thank you for your consideration, and please feel free to contact me at 961-8838 (mmp@sbcapcd.org) should you have any questions.

Molly Pearson

Molly Pearson
Air Quality Specialist

cc: Project file
TEA Chron file

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September 18, 2008

Molly Pearson
Air Quality Specialist
Santa Barbara County Air Pollution Control District
260 North San Antonio Road, Suite A
Santa Barbara, CA 93111

Re: Response to Comments on Ocean Science Education Building Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration, University of California, Santa Barbara

Dear Ms. Pearson:

Thank you for your comments on the Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration (Draft EA/IS/MND) for the Ocean Science Education Building.

As noted in your letter, the SBCAPCD enforces Federal laws which control work practices during the demolition and renovation of institutional, commercial, or industrial structures. Depending upon the amount and type of asbestos and type of project, advance notification to the SBCAPCD may be required before asbestos is disturbed and/or removed (http://www.sbcaped.org/biz/asbestos.htm). The UCSB campus will comply with these requirements, as warranted. Please also note that it is standard University practice to conduct surveys for asbestos-containing materials prior to the demolition of any structure on the UCSB campus.

Mitigation AQ-4 has been revised in the Final EA/IS/MND to reflect the recently updated *Scope and Content of Air Quality Section in Environmental Documents* (County of Santa Barbara 2008b). The revised mitigation measure constitutes an "equivalent or more effective" measure than the measure originally provided in the Draft IS/MND.

Please do not hesitate to contact me with any questions or comments at (805) 893-3796 or by email at shari.hammond@planning.ucsb.edu.

Sincerely,

Shari Hammond

Shari Hammond
Senior Planner

cc: Ray Aronson, Design and Construction Services
Tye Simpson, Campus Planning and Design

County of Santa Barbara
Planning and Development

John Baker, Director

Dianne Black, Director Development Services

John McInnes, Director Long Range Planning

August 27, 2008

Shari Hammond, Senior Planner
University of California, Santa Barbara
Office of Campus Planning and Design
Santa Barbara, California 93106-1030

RE: Notice of Availability Draft Environmental Assessment/Initial Study/Mitigated Negative Declaration for the Ocean Science Education Building

Dear Ms. Hammond:

Thank you for the opportunity to comment on the Notice of Availability Draft Environmental Assessment/Initial Study/Mitigated Negative Declaration for the Ocean Science Education Building. The County submits the following comments for your consideration:

- The IS/MND states that it is does not tier off the 1990 LRDP EIR; however, the document does incorporate discussions from that document that are relevant to this IS/MND. In addition, IS/MND states that is uses relevant environmental setting information from the 2008 LRDP DEIR. The IS/MND language raises the following concerns:
    - An update of the 1990 LRDP is not needed, as this project can be folded into the 2008 LRDP DEIR.
    - The cumulative project list for the IS/MND must include the proposed growth in the 2008 LRDP. It currently only acknowledges the Ocean Road development, which is part of the 2008 LRDP. This must be disclosed and addressed in this IS/MND to fully understand the scope and potential impacts of this project as it relates to the region.
    - UCSB received numerous comments on the 2008 LRDP DEIR. Many of these comments addressed baseline assumptions for the environmental setting discussions for various sections. There is concern that continued amendments of the 1990 LRDP DEIR result in a piecemeal environmental review process and For example, the staffing assumptions for the 1990 LRDP have far exceeded the numbers projected in the 1990 environmental document.
- LRDP Amendment: The amendments noted in the project description are unclear. Figure 16 is actually the Building Height Map and Table D cannot be found in the 1990 LRDP. The Potential Building Locations Map is Figure 12. Please clarify the location, page number and the version of the 1990 LRDP is being used as reference.
- Noise: Please clarify that building construction method or that pile driving will not be used.
- Please post the most recent version of the 1990 LRDP on your Facilities Management webpage for reference.

The County has no further comments on this project at this time and looks forward to continued dialogue on future projects. If you should have further questions, please do not hesitate to contact my office directly, or Derek Johnson, Deputy Director in the Office of Long Range Planning at (805) 568-2072.

Sincerely,

Derek Johnson, Deputy Director, Office of Long Range Planning

cc: John Baker, Assistant County Executive Officer
John McInnes, Office of Long Range Director
David Matson, Deputy Director, Office of Long Range Planning

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September 18, 2008

Derek Johnson
Deputy Director, Office of Long Range Planning
County of Santa Barbara Planning and Development
30 East Figueroa Street
Santa Barbara, CA 93101-2709

Re: Response to Comments on Ocean Science Education Building Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration, University of California, Santa Barbara

Dear Mr. Johnson;

Thank you for your comments on the Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration (Draft EA/IS/MND) for the Ocean Science Education Building.

An amendment to the 1990 LRDP is needed only to expand the potential building location number 25 ("blue bubble") on LRDP Figure 16 (formerly Figure 12, amended in 2006 for North Campus, LRDPA 1-06) and to amend LRDP Figure 23 (formerly Figure 20, amended in 2006 for North Campus LRDPA 1-06) depicting routes for bicycle circulation. This project will be reviewed by the California Coastal Commission for approval prior to their review and consideration of the 2008 LRDP, therefore an amendment to the 1990 LRDP is necessary to cover the proposed project. However, the 2008 LRDP and EIR do account for the OSEB. A portion of the OSEB building was already approved by the Coastal Commission as part of the Marine Science Research Building (NOID 3-01).

The Draft IS/MND does discuss the 2008 LRDP in the cumulative section (see Appendix A, Section 1.8). Ocean Road Housing is on the list of cumulative projects provided in Table 1.8-1 because it is a known project that will likely be submitted to the Coastal Commission before the 2008 LRDP is approved by the Coastal Commission. The campus is disclosing the number of square feet of proposed development and enrollment increases in the 2008 LRDP but we do not know each specific project at this time. This information is used in the discussion of cumulative impacts in the Draft IS/MND. When the 2008 LRDP is approved by The UC Regents and the Coastal Commission each individual project will go through individual CEQA and Coastal Commission review.

The OSEB building is included as part of the 1990 LRDP now in effect, particularly in terms of allowable building space. The OSEB building will not add new UCSB staff, faculty, or students and therefore will not increase these numbers.

We are using the 1990 LRDP now in effect, as amended last in 2007 (LRDPA 2-07). The 1990 LRDP has been amended several times since 1990 and the figure numbers were changed in the 2006 amendment for North Campus (LRDPA 1-06). The 1990 LRDP Figure 13, Potential Non-Residential Building Development Intensity and Type, is now Table D. The 1990 LRDP Figure 12, Potential Building Locations, is now LRDP Figure 16. A copy of the 1990 LRDP as amended is available at the Office of Campus Planning and Design. An updated copy will be placed in the UC Santa Barbara Davidson Library and the Santa Barbara Public Library for use by the public.

Standard building construction methods will be used during project construction. Impact pile driving will not be used. An evaluation of construction noise impacts is provided in the IS/MND.

Please do not hesitate to contact me with any questions or comments at (805) 893-3796 or by email at shari.hammond@planning.ucsb.edu.

Sincerely,

Shari Hammond

Shari Hammond
Senior Planner

cc: Ray Aronson, Design and Construction Services
Tye Simpson, Campus Planning and Design

Fire Department

"Serving the Community Since 1926"

4410 Cathedral Oaks Road
Santa Barbara, CA 93110-1042
(805) 681-5500 FAX (805) 681-5563

John M. Scherrei
Fire Chief
County Fire Warden

August 21, 2008

Ms. Sheri Hammond
Senior Planner
Office of Campus Planning and Design
University of California
Santa Barbara, CA 93106-1030

Dear Ms. Hammond:

SUBJECT: Notice of Availability Draft Environmental Assessment/Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed Ocean Science Education Building (OSEB)
APN#: 073-130-001

Thank you for the opportunity to comment on the Notice of Availability Draft Environmental Assessment IS/MND for the proposed Ocean Science Education Building (OSEB). The Santa Barbara County Fire Department has reviewed this document and offers the following:

The Fire Department does not believe that adequate fire station infrastructure exists to serve this additional development. The current fire station on campus (Fire Station 17) does not meet current Essential Facility Act (EFA) standards as required by the State Legislature for essential facilities. This act was passed by the State Legislature in 1986 and is found in Section 16000 of the California Health and Safety Code.

The current size and construction of this old existing fire station on campus (Building #574), is in need of replacement in order to meet the California Health and Safety Code. The cumulative impacts of this and other UCSB projects only continue to exacerbate the existing substandard condition of this fire station.

The Santa Barbara County Fire Department also requests that confirmation be obtained from the Goleta Water District that the fire water main infrastructure is capable and that the water supply is sufficient to meet the requirements of the California Fire Code for this proposed project. We question whether or not this has been fully analyzed and it would represent a significant impact should adequate fire protection water not be available to serve this new construction.

The County Fire department wishes to continue to express its concern over the lack of adequate emergency response capability for UCSB, especially for the main campus area.

Current Firefighter staffing and emergency response capabilities are not able to adequately handle existing emergency response needs. The addition of 15,284 gross square feet to the already overburdened engine company (Engine 17), represents additional work load with no corresponding mitigation.

While we understand that UCSB has reached its maximum enrollment limit of 20,000 students, it is clear from the amount of office space and support space being added that additional staff will be present on campus over existing levels. These are cumulative impacts that need to be addressed.

It is also important to understand that a building of this type has emergency response impacts other than fires. The Fire Department not only responds to fires, but also to people who have Medical Emergencies in the building.

Currently, UCSB does not contribute any funding for providing emergency fire protection service to campus facilities. The University is also exempt from paying property taxes, which in essence, means that the taxpayers in the City of Goleta and the County of Santa Barbara subsidize fire protection for UCSB.

These emergency incidents represent many hours that the Fire Department is not available to respond to other calls for emergency service by the taxpaying public. This in turn means longer response times and a lower level of emergency service for the citizens in the Goleta Valley.

We believe that this is an unacceptable condition. We ask that due consideration be given to these additional impacts and it is the Fire Department's desire to mutually resolve these life and safety concerns.

Thank you again for allowing us to comment regarding this project.

Yours in the interest of life and fire safety,

Martin Johnson, Captain
Santa Barbara County Fire Department
Fire Prevention Division
(805) 681-5528

c: C. Wiesen, Fire Marshal, UCSB
M. Van Der Linden, P.E., Goleta Water District

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September 18, 2008

Martin Johnson, Captain
County of Santa Barbara Fire Department
4410 Cathedral Oaks Road
Santa Barbara, CA 93101-1042

Re: Response to Comments on Ocean Science Education Building Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration, University of California, Santa Barbara

Dear Mr. Johnson:

Thank you for your comments on the Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration (Draft EA/IS/MND) for the Ocean Science Education Building.

Your letter indicates that Station 17, which serves the campus and Isla Vista, does not meet current Essential Facility Act (EFA) standards, as required by the State Legislature for essential facilities. The letter further states that adequate fire station infrastructure therefore does not exist to serve the proposed project.

However, as indicated in Section 5.15 of this Draft IS/MND, the proposed OSEB project would not result in the need for new or expanded fire station facilities. The project would not result in any new resident population on campus. The 26 CINMS and NOAA staff that would occupy the CINMS wing would be new to the campus, but would not constitute a substantial long-term increase in the population of the project area. Based on the County's minimum service standard of 1 firefighter per 4,000 people, the proposed project would not result in the need for any new fire protection staff and therefore related facility space would not be required. While there may be deficiencies in the existing space, the project does not stimulate the need for new or expanded space. Under CEQA, an impact would occur if the increase in demand from the proposed project resulted in the need to build a new or expanded station that would result in physical impact on the environment. As new or expanded fire protection facilities would not be required to serve the project, the impact under CEQA is less than significant. It should also be noted that the OSEB building square footage was accounted for in the 1990 LRDP and was therefore evaluated in the 1990 LRDP EIR.

The 2008 LRDP Draft EIR provides an evaluation of the cumulative impact of campus growth through 2025 on fire protection services. According to that analysis, an expansion of Station 17 would be necessary in order to adequately serve the University under the 2008 Draft LRDP, based on the application of the County's minimum service ratio noted above. However, the proposed project would

not result in a cumulatively considerable contribution to this significant cumulative impact, as the project would not result in the need for any new fire protection staff and related facility space, based on the County's minimum service standard of 1 firefighter per 4,000 people.

Your letter further requests confirmation that the fire water main infrastructure is sufficient to meet the requirements of the California Fire Code for the proposed project. Penfield and Smith prepared a water flow analysis as a part of the Main Campus Infrastructural Renewal project, which is currently being planned for the UCSB campus. According to that analysis, the existing water system will provide sufficient fire flow and pressure to the proposed Ocean Science Education Building in conformance with the California Fire Code.

Your letter also identifies the need for funding to support increased emergency fire protection services to campus facilities. As noted above, an impact would occur if the increase in demand from the proposed project resulted in the need to build a new or expanded station that would result in a physical impact on the environment. Funding for fire service is not a CEQA issue and the campus will continue to work with the Santa Barbara County Fire Department to address the adequacy of Departmental services.

Please do not hesitate to contact me with any questions or comments at (805) 893-3796 or by email at shari.hammond@planning.ucsb.edu.

Sincerely,

Shari Hammond

Shari Hammond
Senior Planner

cc: Ray Aronson, Design and Construction Services
Marc Fisher, Campus Design and Facilities Management
Tye Simpson, Campus Planning and Design
Chris Wiesen, Environmental Health and Safety

SANTA BARBARA BICYCLE COALITION

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August 20, 2008

Shari Hammond, Senior Planner
UCSB Office of Campus Planning and Design
Santa Barbara, CA 93106

Dear Ms. Hammond,

We congratulate the University in collaborating with the National Oceanic and Atmospheric Administration in proposing the Ocean Science Education Building. It will be a fine addition to the campus. However we do have some reservations about the *Draft Environmental Assessment/Initial Study/Mitigated Negative Declaration.*

We're sad to see the proposed removal of the new bikepath on the west side of Lagoon Road, removing the one bikepath that would service the new building. The *Bicycle Plan for Construction* guidelines adopted by the Campus Planning Committee last April states that new buildings and expansions must have a bike route that connects to a dedicated bike parking area at the building. We see none.

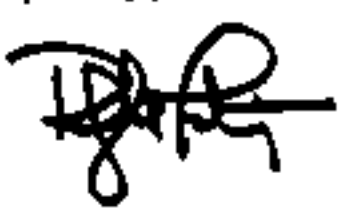
Your document says that bicyclists currently using the Lagoon Road bikepath will be redirected to the path north of Bren and concludes "the proposed project will not effect bicycle access." While that's true for many, it's not true for all. For example, coming from Goleta Beach and bicycling to the MultiCultural Center will require a circuitous tenth of a mile further travel. Some will choose to bicycle the shorter route on Lagoon Road, slowing motorists, rather than take the longer bikepath route.

We would like to see a mitigation of the loss of the bikepath by providing a continuation of the current bikepath on the east side of Lagoon Road south to the intersection of UCEN Road. It would entail relocation of some palm trees. The unpaved path there now shows bike tire treads indicating that it's already a convenient path for bicyclists. The Lagoon/UCEN intersection is controlled by 3-way stop signs, and it could become a 4-way stop for those entering and leaving the new bikepath.

Finally, we note a new bicycle parking area to the southwest of the proposed OSEB, but it's unclear how bicyclists would access it—perhaps from UCEN Road?

We appreciate your consideration of our comments. Contact us any time.

Respectfully yours,



Ralph Fertig, President
Santa Barbara Bicycle Coalition

UNIVERSITY OF CALIFORNIA, SANTA BARBARA UCSB

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FACILITIES MANAGEMENT
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Tel: (805) 893-3796
Fax: (805) 893-2870

September 18, 2008

Ralph Fertig, President
Santa Barbara Bicycle Coalition
P.O. Box 92047
Santa Barbara, CA 93190-2047

Re: Response to Comments on Ocean Science Education Building Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration, University of California, Santa Barbara

Dear Mr. Fertig:

Thank you for your comments on the Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration (Draft EA/IS/MND) for the Ocean Science Education Building and thank you for your overall support for the project.

We appreciate your concerns and interest in ensuring continued bicycle access and parking for new buildings. Related to your comments, it is acknowledged that a segment of the Class I bike path along Lagoon Road between the OSEB project site on the south and the Bren Building on the north would be removed with the proposed project. The Draft EA/IS/MND indicates that the recently constructed bike path just north of the Bren building will provide separated bike access from Lagoon Road into the interior of the Main Campus, linking to the campus bicycle network. However, the document further indicates that Lagoon Road and UCen Road will continue to provide shared bike access to the project site and vicinity, which are both Class III bike routes. As indicated in the Draft EA/IS/MND, signage will be posted along Lagoon Road directing bicyclists to the bike path north of the Bren Building. This signage will also inform bicyclists that access is also provided along the Class III bike routes along Lagoon Road and UCen Road. Therefore, bicycle routes to the proposed new building will be provided, per the UCSB Bicycle System Improvements Policy. While this is the case, the campus will investigate the possibility of replacing the segment of separated path that will be removed with this project, but such a replacement is not necessary to ensure adequate bicycle access in accordance with the Bicycle System Improvements Policy.

Regarding your comments about bike parking, the proposed project will provide for the relocation of the existing improved bicycle parking area on the site to a location just south of the Bio-II building. This relocated parking area will replace the existing bicycle parking on the project site and provide for additional bicycle parking to serve the proposed OSEB, in accordance with the UCSB Bicycle System Improvements Policy standards. Therefore, the proposed project would not result in a loss of bicycle parking and adequate bicycle parking would exist to serve the project. Furthermore, this dedicated

parking area will be accessible from the Class III bike route along UCen Road, which connects to the larger bicycle network, in accordance with UCSB Bicycle System Improvements Policy standards.

A number of text changes were made in the Final EA/IS/MND to clarify the provisions for bicycle parking and access with the proposed project. These clarifications were made in the Final IS/MND contained in Appendix A (see pages 2-4, 2-5, 5-64, 5-65, 5-66, and 7-3). In particular, conformance with the UCSB Bicycle System Improvements Policy standards related to bicycle parking and access were specifically described on pages 5-64 through 5-66.

Please do not hesitate to contact me with any questions or comments at (805) 893-3796 or by email at shari.hammond@planning.ucsb.edu.

Sincerely,

Shari Hammond

Shari Hammond
Senior Planner

cc: Ray Aronson, Design and Construction Services
Tye Simpson, Campus Planning and Design
Dennis Whelan, Campus Planning and Design

To: Shari Hammond, Senior Planner
UCSB Office of Campus Planning and Design
Santa Barbara, CA 93106

Dear Ms. Hammond,

The AS B.I.K.E.S. Committee has spent time reviewing the proposed design plan for the new Ocean Sciences and Engineering Building (OSEB) in addition to visiting and reviewing the site and has a pallet of concerns that we feel should be addressed in the plan before, during and after construction. Although the plan recognizes the removal of the current bike path to "better serve the campus population by avoiding pedestrian conflicts that could occur with the project," and that bicycle parking will be relocated to the "southwest corner of the project site and reroute bicycle access to this area," the plan fails to adequately address the removal of one of the nicest sections of path on campus or provide for an adequate rerouting of bicycle traffic.

During construction the relocation of bicycle parking will prove problematic as there is already minimal bike parking in the area and 9 of the highly desirable bike lockers on campus are located in the current bike parking lot. The current plan does not provide for an interim location of both the racks and the lockers during construction.

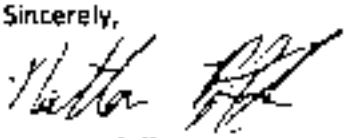
Post construction the plan attempts to account for the removal of the current area by simply relocating it to a smaller area and "reroute[ing] bicycle access to the area." Unfortunately nowhere in the plan is the rerouting addressed and with the removal of the current path which provides direct access to the parking area the proposed parking area will be significantly less accessible. By UCSB BIKES rules new and relocated lots are required to be adjacent to a bike path and the proposed relocation of the bike parking lot violates this requirement.

As for the removal of the bike path the reason listed is to "avoid pedestrian conflicts that could occur with the project." Unfortunately the plan has not provided adequate evidence that any such conflict may occur, and it should be noted that nearly every bike path on campus already crosses or parallels numerous sidewalks and the campus community does not suffer from pedestrian – cyclist conflicts currently. Also the current path allows for safer access to Campus Point and the removal of the path would force cyclists onto the road with increased bus traffic which has potential to cause serious conflicts especially if a bicycle lane is not created.

We would like to propose the following options as changes to the plan to remedy the current issues. Before construction begins a replacement lot for all of the parking spots and bicycle lockers is to be created located adjacent to an existing path in close proximity to the current parking area. During construction a temporary closure of the current path may take place in order to avoid endangering both construction personnel and cyclists. Following construction, the current path if destroyed, shall be replaced by a new path either on the east side of Lagoon Road or a path paralleling the new sidewalk on the west side of Lagoon Road. Additionally the relocated bicycle parking post construction will be accessible via the new path.

If you have any questions please do not hesitate to contact me.

Sincerely,



Nathan Pfaff
npfaff@engineering.ucsb.edu
Graduate Student Representative
AS B.I.K.E.S. Committee

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September 19, 2008

Nathan Pfaff
Graduate Student Representative
AS B.I.K.E.S. Committee

Re: Response to Comments on Ocean Science Education Building Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration, University of California, Santa Barbara

Dear Mr. Pfaff:

Thank you for your comments on the Draft Environmental Assessment and Initial Study/Mitigated Negative Declaration (Draft EA/IS/MND) for the Ocean Science Education Building.

We appreciate your concerns and interest in ensuring continued bicycle access and parking for new buildings. Related to your comments regarding an interim location for both the racks and lockers during construction: construction will be planned so that the new bike parking area is constructed first. The racks and lockers will be installed in the new parking area, prior to initiation of construction activities on the main portion of the site. This will maximize access to this parking to the extent possible during construction.

It is acknowledged that a segment of the Class I bike path along Lagoon Road between the OSEB project site on the south and the Bren Building on the north would be removed with the proposed project. The Draft EA/IS/MND indicates that the recently constructed bike path just north of the Bren building will provide separated bike access from Lagoon Road into the interior of the Main Campus, linking to the campus bicycle network. However, the document further indicates that Lagoon Road and UCen Road will continue to provide shared bike access to the project site and vicinity, which are both Class III bike routes. The pre- and post-project bicycle route network are shown in Appendix A (Draft IS/MND), Figures 5.17-1 and 5.17-2. As indicated in the Draft EA/IS/MND, signage will be posted along Lagoon Road directing bicyclists to the bike path north of the Bren Building. This signage will also inform bicyclists that access is also provided along the Class III bike routes along Lagoon Road and UCen Road. Therefore, bicycle routes to the proposed new building will be provided, per the Bicycle System Improvements Policy. While this is the case, the campus will investigate the possibility of replacing the segment of separated path that will be removed with this project, but such a replacement is not necessary to ensure adequate bicycle access in accordance with the Bicycle System Improvements Policy.

The bicycle path is being removed to avoid pedestrian conflicts that could occur with the project. Specifically, a new school bus pull out will be constructed along Lagoon Road fronting the project site. School buses will bring K-12 school groups to the new building, via this pull out. Groups of up to 90 children could be unloading in this location at a given time. A bike path location in this area would require that these children cross the bicycle path in route to the entrance to the OSEB, which could result in substantial conflicts with pedestrians.

Regarding your comments about the size of the new bike parking area: the proposed project will provide for the relocation of the existing improved bicycle parking area on the site to a location just south of the Bio-II building. This relocated parking area will replace the existing bicycle parking on the project site and provide for additional bicycle parking to serve the proposed OSEB, in accordance with the UCSB Bicycle System Improvements Policy standards. Therefore, the proposed project would not result in a loss of bicycle parking and adequate bicycle parking would exist to serve the project. Furthermore, this dedicated parking area will be accessible from the Class III bike route along UCen Road, which connects to the larger bicycle network, in accordance with UCSB Bicycle System Improvements Policy standards.

A number of text changes were made in the Final EA/IS/MND to clarify the provisions for bicycle parking and access with the proposed project. These clarifications were made in the Final IS/MND contained in Appendix A (see pages 2-4, 2-5, 5-64, 5-65, 5-66, and 7-3). In particular, conformance with the UCSB Bicycle System Improvements Policy standards related to bicycle parking and access were specifically described on pages 5-64 through 5-66.

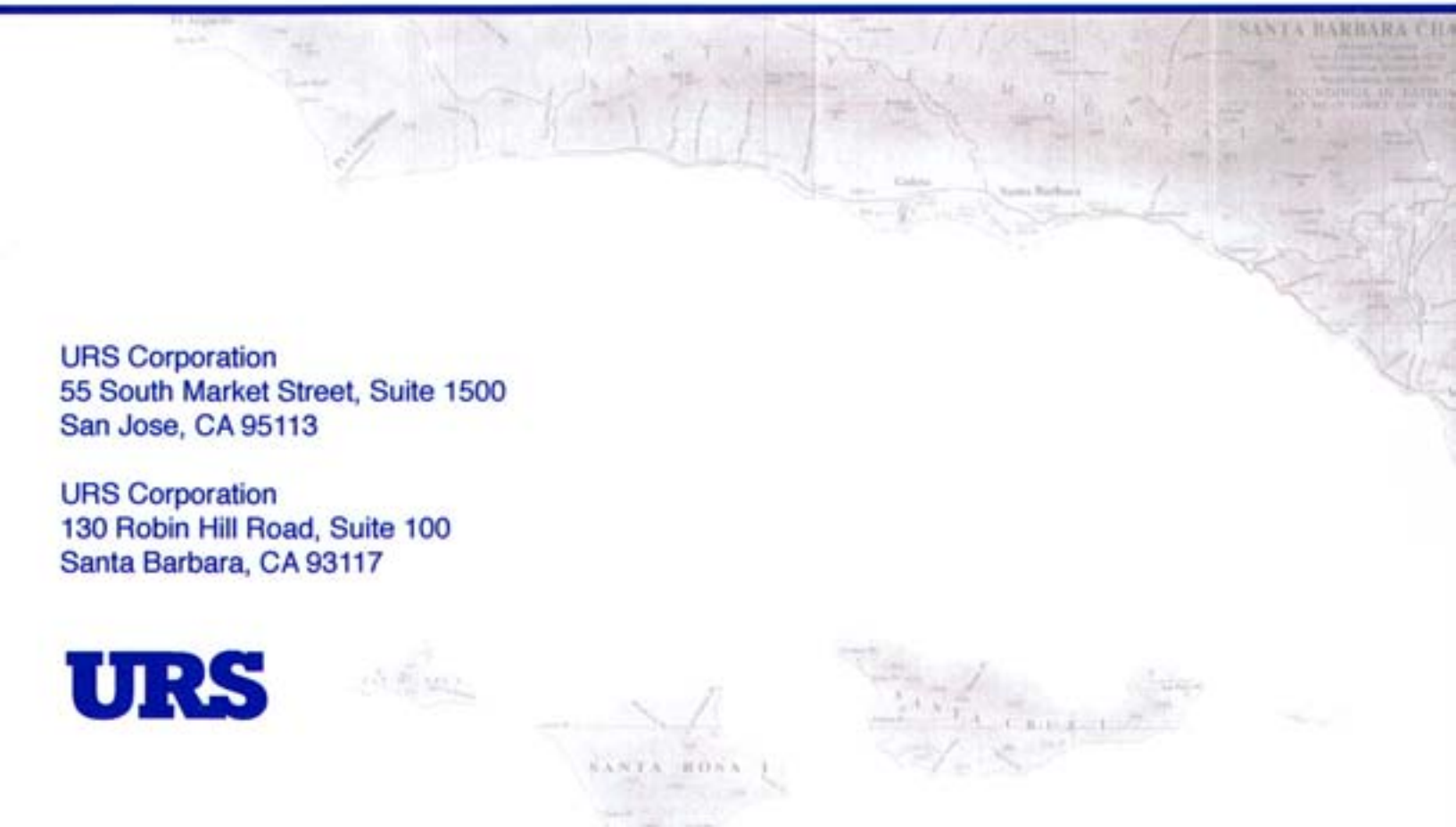
Please do not hesitate to contact me with any questions or comments at (805) 893-3796 or by email at shari.hammond@planning.ucsb.edu.

Sincerely,

Shari Hammond

Shari Hammond
Senior Planner

Ray Aronson, Design and Construction Services
Tye Simpson, Campus Planning and Design
Dennis Whelan, Campus Planning and Design



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