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Prepared April 30, 2014 (for May 15, 2014 hearing)

Th8a

To: Coastal Commissioners and Interested Persons

From: Susan Craig, Coastal Program Analyst Supervisor
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Subject: **University of California, Santa Cruz, Marine Science Campus Coastal Long Range Development Plan, Notice of Impending Development Number 7 (SCZ-NOID-0004-14) (Marine Mammal Pool Renovation and Expansion).** Coastal Commission consideration of University of California, Santa Cruz's notice regarding its intent to renovate and expand its outdoor marine mammal pool facility at Long Marine Laboratory on the university's Marine Science Campus in Santa Cruz.

The University of California at Santa Cruz (UCSC) submitted a Notice of Impending Development (NOID) for the seventh project pursuant to the University's Marine Science Campus Coastal Long Range Development Plan (CLRDP), and requests that the Commission concur with UCSC's determination that the proposed project is consistent with the certified CLRDP.

The proposed project is the renovation and expansion of the marine mammal pool facility at the Long Marine Laboratory on the UCSC Marine Science Campus. Currently, the outdoor marine mammal pool facility spans 20,200 square-feet, consisting of five in-ground concrete pools, two smaller fiberglass pools, and six small, concrete in-ground pools. The five larger concrete pools, as well as the raised working decks surrounding the pools, show signs of structural failure. The proposed project renovations would address the facility's structural breakdown and deterioration, as well as upgrade the facility's mechanical and utility systems, including a new stormwater basin infiltration system. The proposed project also expands the outdoor marine mammal pool facility by approximately 2,894 square-feet to accommodate enlargement and deepening of the facility's largest pool, the dolphin pool. Other improvements would include new low-level LED lighting along the under-observation area of the expanded dolphin pool, and new fencing to meet regulatory, building code and accessibility requirements. Also included in the proposed project are the refurbishment of two existing tanks and the relocation of another existing tank at the California Department of Fish and Wildlife facility, which is also on the UCSC Marine Science Campus.

The proposed project is consistent will all applicable provisions of the CLDRP. First of all, improvements to the marine mammal pool facility are clearly consistent with the Marine Research and Education Mixed Use designation, and the 2,894 square-foot expansion of the pool facility is within the additional 10,000 square-foot expansion allowable for the purpose of outdoor research. Secondly, the proposed development is primarily within existing developed areas, so it raises no issues with development within rural boundaries, and does not present

adverse impacts on nearby habitats or environmentally sensitive areas. The project includes appropriate mitigation measures to protect sensitive species during construction, such as training of construction personnel and monitoring of construction areas. The proposed project includes a new stormwater basin infiltration system that would filter and treat runoff increase resulting from the proposed 1,500 square-feet addition of impervious surface. The proposed project does not include buildings, parking, public access restrictions, or any additional demand on water or sewage. The proposed replacement of the eight-foot-tall fence to about 16-feet south of its current location is consistent with applicable scenic and visual policies. Finally, the proposed project would replace existing flood lights with low-level LED lights that will result in less light pollution. In short, the proposed project complies with all applicable CLDRP requirements.

In summary, the improvement of the facility's existing deteriorating pools will greatly benefit marine research and provide better education opportunities at the Campus. As proposed by the University, implementation of the Marine Mammal Pool Expansion and Renovation Project is consistent with the certified CLRD, and **staff recommends that the Commission determine that the project is consistent with the certified CLRDP.** The necessary motion and resolution are found on page 4 of the staff report.

Staff Note - NOID Action Deadline: This NOID was filed as complete on April 16, 2014. The 30-working-day hearing deadline is May 16, 2014. Unless UCSC extends the deadline (the CLRDP allows for an extension of up to three months from the hearing deadline), the Commission must take action on the NOID by the May 16, 2014 hearing or it will be deemed consistent with the CLRDP.

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I. MOTION AND RESOLUTION

Motion:

I move that the Commission determine that the development described in UCSC Notice of Impending Development Number 7 (SCZ-NOID-0004-14) ***is consistent*** *with the certified University of California at Santa Cruz Coastal Long Range Development Plan.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in a determination that the development described in the UCSC NOID 7 (SCZ-NOID-0004-14) is consistent with the certified UCSC CLRDP, and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

The Commission hereby determines that the development described in UCSC Notice of Impending Development Number 7 (SCZ-NOID-0004-14) is consistent with the certified University of California at Santa Cruz Coastal Long Range Development Plan for the reasons discussed in the findings herein.

II. FINDINGS AND DECLARATIONS

A. UNIVERSITY OF CALIFORNIA, SANTA CRUZ CLRDP

General CLRDP Background

As an alternative to project-by-project coastal permit review, Coastal Act Section 30605 allows for universities to develop long range development plans for Coastal Commission certification. Once certified, each university is the primary entity responsible for ensuring that future development on the site is consistent with the certified long range development plan, subject to ongoing Commission oversight. The Coastal Commission certified UCSC's Marine Science Campus CLRDP on January 7, 2009. The Commission approved amendments to the CLRDP on August 15, 2013 (Amendment 1).

UCSC's Marine Science Campus

UCSC's Marine Science Campus (Campus) site is located directly adjacent to the Monterey Bay National Marine Sanctuary (Sanctuary) just within the western border of the City of Santa Cruz in Santa Cruz County (see Exhibit A for a location map). The Campus site has been known locally for many years as Terrace Point. The main UCSC campus is located roughly two miles inland of the Campus in the rolling foothills northwest of downtown Santa Cruz. The Campus is located at the outskirts of the City, seaward of Highway One, at the transitional boundary between the urbanized City area to the east and the rural north coast of the unincorporated County to the west. The Santa Cruz County north coast area is well known to the Commission

for its sweeping vistas of both coastal agricultural fields and natural landscapes framed by the undulating coastal range. Much of this area is in extensive State Park and other rural public land holdings, and all of it is traversed by a rural stretch of Highway One. Although there are some limited residential enclaves (e.g., Davenport along the coast, and Bonny Doon in the mountains) in these mostly pastoral areas, this north coast area is part of the stretch of largely agricultural and undeveloped coastal lands extending nearly 50 miles to Half Moon Bay upcoast. The Campus site is located at the beginning of this stretch of coast as one heads upcoast out of the City of Santa Cruz and, by extension, out of the urbanized portion of northern Monterey Bay.[1]

The Campus site is primarily made up of a relatively flat terrace area (roughly 73 acres) sloping gently from north to south (to the ocean) with the remainder occupied by a large arroyo feature (roughly 25 acres) on the west of the site, at the base of which lies Younger Lagoon, an estuarine lagoon that connects (at times) to the ocean. A sandy beach area fronts Younger Lagoon below the terrace. The lagoon, the beach, the arroyo and a portion of the terrace[2] make up Younger Lagoon Reserve. The terrace portion of the site includes within it a 2.5 acre federally-owned parcel completely surrounded by UCSC property. Altogether, the Campus (including the federal in-holding and the Younger Lagoon Reserve) is about 100 acres.

In the general Campus vicinity, agricultural land extends to the west along the coast beyond the Younger Lagoon Reserve and the western Campus boundary. To the north are the Union Pacific Railroad tracks, the Raytek industrial facility, and Highway One. To the south lies the Sanctuary and the Pacific Ocean, and to the east is Antonelli Pond (north of Delaware Avenue) and the densely packed De Anza Mobile Home Park (south of Delaware Avenue) beyond which is Natural Bridges State Park and past that West Cliff Drive in the City of Santa Cruz.

UCSC'S Marine Science Campus CLRDP

UCSC's Marine Science Campus CLRDP was certified by the Coastal Commission on January 7, 2009, and amended in 2013. The CLRDP provides a blueprint for future development of the site including a maximum increase of about 600,000 square feet of new Campus facilities mostly within four distinct development zones (occupying about one-third of the terrace area) for an expanded Marine Science Campus. The CLRDP provides for roughly 340,000 gross square feet of potential new facilities within the four development zones in new one- and two-story buildings up to 36 feet tall, with the remainder in outdoor research and support areas. The CLRDP also accounts for additional areas of roads, and some natural drainage ponds, outside of the four development nodes. Overall, and at full buildout, the CLRDP allows for the Campus to grow by about three times its size at certification. In addition to the building program, the CLRDP also provides for an expanded public access trail system and natural habitat restoration in those wetland and open space areas on the terrace that are not part of the proposed

[1] The City of Santa Cruz is located at the upcoast end of the larger urban portion of northern Monterey Bay that extends downcoast through unincorporated Live Oak, the City of Capitola, and the more urban portion of south Santa Cruz County (i.e., the Aptos-Rio del Mar-Seascape areas). Though defined by city limit boundaries, these more urban areas all blend somewhat together as a larger urban "zone."

[2] As required by the CLRDP, the terrace areas located outside of the allowed development footprint on the Marine Science Campus were added to Younger Lagoon Reserve in 2009. Thus, when added to the original 25-acre Reserve area, Younger Lagoon Reserve now occupies 72 acres of the Marine Science Campus.

development zones (roughly 47 acres) that, per the CLRDP, have been added to Younger Lagoon Reserve.

B. UCSC NOID 7

Notices of Impending Development

Under a certified CLRDP, University development of specific projects contained in the CLRDP can proceed without a coastal permit, provided the University sends a Notice of Impending Development (or a "NOID") to the Commission prior to undertaking development, and either the Commission deems the identified development project consistent with the CLRDP (with or without conditions to make it so) or does not respond in a timely manner to the NOID.[3] Pursuant to Coastal Act Sections 30605 and 30606, the Commission may impose conditions on such development project proposals only if it finds them inconsistent with the certified CLRDP.

NOID 7 – Marine Mammal Pools Renovation and Expansion Project

The proposed project ("Project") is the renovation and expansion of the existing 20,200 square-foot outdoor marine mammal pool facility at Long Marine Laboratory on the UCSC Marine Science Campus.[4] Currently, the outdoor marine mammal pool facility consists of five in-ground concrete pools ranging from about 490 square-feet to about 1,730 square-feet, two smaller fiberglass pools, and six small, concrete in-ground pools. Three of the five larger (25-foot diameter) concrete pools were part of the initial construction of the campus in 1978, as were four of the six smaller concrete pools. In 1985, the two largest pools, one circular and 30 feet diameter and the other oblong and 1,730 square feet, were constructed. Seawater is supplied to all pools via a gravity flow system from 36-foot-tall storage tanks located in the pool yard complex. Two interconnected recirculation systems provide high-rate sand filtration, chlorination, and gas-fired heating of the seawater in the five large pools. The five larger concrete pools, as well as the raised working decks surrounding the pools, show signs of structural failure, including cracking, spalling,[5] and rust bleeding from reinforcing steel. Moreover, the pools need recoating and the wood-constructed raised working decks around the pools show signs of wood rot and breakdown. See Exhibit A for an aerial photo of the project site.

[3] Coastal Act Section 30606 requires that the University provide notice of an impending development at least 30 working days prior to pursuing it. Title 14 CCR Section 13549 provides that a NOID is only filed following Executive Director review of the NOID and any supporting materials to ensure there is sufficient information for making the consistency determination. The filing review must be completed within five working days after receiving the NOID submittal. Title 14 CCR Section 13548 requires that the Commission take action on the notice within 30 working days of filing of the NOID. In sum, if the Commission does not take action within 30 working days of filing of the NOID, the identified development project is deemed consistent and can proceed. In the case of the UCSC CLRDP, the action deadline may be extended by UCSC for up to 3 months.

[4] The Initial Study prepared for the project also included a solar energy project for the installation of photovoltaic panels on several existing buildings and over a parking lot area at the Campus. However, the University has not included this aspect of the project in this NOID submittal.

[5] Spalling is a result of water entering brick, concrete or natural stone and forcing the surface to peel, pop out or flake off.

The proposed project renovations would address the facility's structural breakdown and deterioration, as well as upgrade the facility's mechanical and utility systems. The liners of the five existing concrete pools would be removed, the pool walls and floor slabs would be repaired, and a new coating applied. The existing wooden decks would be removed and replaced with new decking made of recycled HDPE lumber.[6] Existing ramps and stairs throughout the facility would be removed and replaced. The existing subsurface observation room beneath the deck on the west side of the dolphin pool would remain, but would be shortened, and the trainer platform locally widened to create a slide-out for the animals. Existing eight-foot-high wood fencing along the western boundary of the facility would be removed, and the wood would be salvaged and used to reconstruct a new fence. Additional fencing within the facility and an existing sun shade that extends over portions of the facility would be removed and replaced.

Improvements to the seawater circulation system within the existing mechanical area of the mammal pool facility would include new pumps and piping in the immediate area of the existing filters and pumps, and heat recovery exchangers in the seawater recirculation system within the existing seawater pool structures. Existing utilities within the footprint of the pool expansion, including a storm drain, a natural gas line, and a light pole, would be relocated. All of the utility line replacements would be within the existing developed area in and adjacent to the expanded mammal pool facility. The Project would not increase water demand. New energy use would be limited to a new 20-25 horsepower (Hp) pump and two new 1 Hp storm sump pumps, and would be offset by new heat recovery exchanges in the seawater recirculation system.

The proposed project also expands the outdoor marine mammal pool facility by approximately 2,894 square-feet to accommodate enlargement of the facility's largest pool, the dolphin pool. The oblong 1,730 square-foot dolphin pool would be expanded to 32 feet in length, and a portion of it will be deepened from 10 feet to a maximum depth of 30 feet. Development incidental to the dolphin pool enlargement includes moving the existing southern fence further south about 16 fee, and modifying a sub-surface observation room, ramps, and trainer platform. The expansion would involve removing an existing fence, excavation of a portion of a berm, excavation to a depth of 30 feet for the dolphin pool expansion, construction of a new retaining wall, and new fencing. A new driveway to the south of the facility would be created for construction access.

The Project would increase impervious surface by approximately 1,500 square-feet, which includes the new pool area. A storm water infiltration basin would be created south of the new fence. The infiltration basin would be designed to maintain storm water runoff volumes from the site at or below the limits provided by the CLRDP.

Lastly, to provide temporary accommodation for the animals displaced by the proposed project construction, two existing fiberglass tanks in the California Department of Fish and Wildlife (CDFW) yard[7] would be refurbished; and an existing fiberglass tank, currently located outside of

[6] HDPE lumber is made from recycled high-density polyethylene retrieved from recycled water bottles, milk jugs, detergent bottles and other plastic containers.

[7] The Marine Wildlife Veterinary Care and Research Center, operated by the California Department of Fish and Wildlife (CDFW) at the project site since 1998, is currently housed in three one-story structures in the middle of the Campus. This area is developed with several existing above-ground tanks, pens for holding sea otters, and associated seawater and life support equipment.

the CDFW yard, would be installed on an existing concrete slab inside the yard, along with new decking, a ramp and stairs. Also, improvements would be made to the existing fencing surrounding the CDFW facility, including 12-foot-tall posts to support new sunshades.

See Exhibit B for project plans.

C. CLRDP CONSISTENCY

The CLRDP includes a number of sections, policies, and implementation measures (IMs) that apply specifically to the project sites. See Exhibit C for the applicable CLRDP standards.

The Project is essentially composed of two developments. The primary development component is the renovation and expansion of the marine mammal pool facility. Incidental to the pool facility development is the renovation and installation of temporary tanks at the CDFW yard that would hold animals during construction. Both development components are proposed on land designated as Research and Education Mixed Use. Here, the Project is clearly consistent with the designated use because the purpose of the Project is to renovate and expand the marine mammal pool facility, which would result in greater marine research capacity for the Campus. Although both developments have the same designation, they are located in different development zones. The marine mammal pool facility is located in the Lower Terrace Development Zone, in which a number of additional land use restrictions apply because of its proximity to the sea; whereas the CDFW facility is located further inland in the Upper Terrace Development Zone. In addition to the general type of uses allowed under the Research and Education Mixed Use designation, uses allowed west of McAllister Way in the Lower Terrace Development Zone, where the pool facility is located, are further limited; including, relevant here, “uses that integrally relate to existing development or research activities in the development zone…” (IM 4.2.14). Again, the marine pool facility improvements are clearly an allowable type of use in both the Upper Terrace and Lower Terrace Development Zones.

The expansion of the marine mammal pool facility would add an additional 2,894 square-feet of Outdoor Research Area in the Lower Terrace Development Zone. Under CLDRP Figure 5.3, an additional 10,000 square-feet (i.e. beyond the amount of pre-existing development before CLDRP certification) of Outdoor Research Area is allowed in the Lower Terrace Development Zone. In 2010, the Outdoor Research Yard Expansion Project added 3,200 square-feet of outdoor research area. So with the additional square-footage of this Project, the combined additional total of Outdoor Research Area would be 6,094 square-feet, within the allowable maximum. In the Upper and Middle terrace zones a combined additional 60,000 square-feet of Outdoor Research Area is allowed, but the tanks that would be used at the CDFW are already existing (one is being moved into the CDFW yard from outside of it) and therefore would not add additional square-footage. Briefly stated, the Project is consistent with Figure 5.3 regarding allowable land use intensity.

CLRDP Figures 5.2 and 5.4 limit the maximum height allowable in the area where the pool facility is located to between 24 feet and 15 feet (depending whether it falls within subareas 12 and 13, respectively). No new buildings are proposed, but the expansion of the pool facility includes new fencing that would be no more than eight-feet tall, which is well within the 15- to 24-foot maximum allowable height. The CDFW facility is located in subarea 10, which has a

height limit of 24 feet. The temporary 12-foot-tall shade structure proposed for the CDFW facility also meets the CLRDP's height limitation for subarea 10. Thus, the Project is consistent with height limitations for the applicable development zones, as provided by Figures 5.2 and 5.4.

To protect scenic views and the visual quality of the area, in addition to regulating height CLRDP Section 5.4 requires the Project to be sited and designed to be compatible with existing development and surrounding areas. Policy 4.2 requires that all new development at the Campus be sited and designed to be compatible with existing Campus development and surrounding areas. Also, IM 4.2.1 requires new development to be consistent with the CLRDP Illustrative Campus Buildout Site Plan, and provides guidelines on siting, materials, height, clustering, and project design. IM 4.2.7 specifically requires construction materials used for new development ensure compatibility among all building on the Campus. Here, the majority of the development is renovation of the existing facility which will be screened by surrounding fences and buildings. The expanded pool and the new ramp would not be visible from outside the fence except from the public viewing platform (Overlook C) on the top of the adjacent berm, which provides visual access to the marine mammal pool facility for members of the public on docent-led tours, and which will not be impacted by the proposed project. The tanks within the CDFW yard would not be visible from outside the fences. The proposed new fencing around the mammal pools, which be constructed out of wood salvaged from the existing fence, would be a maximum of eight-feet tall, and would be located only 16-feet south of its current location in an already developed area. Thus, the Project is consistent with IM 4.2.1, and IM 4.2.7. Also the increase in depth of the dolphin pool to a maximum of 30 feet would not alter surface landforms and is consistent with IM 4.2.2, which requires development be sited and designed to minimize the alteration of natural landforms. In sum, the Project is consistent with Policy 4.2 because it is sited and designed consistent with the existing development of the Campus.

Policy 4.3 states that development must be sited and designed so that the impacts of activity and direct light on wildlife and public views outside of the development zones is limited to the maximum extent feasible. Policy 4.3 and IM 4.3.1 require that activity and direct light not be visible within the original[8] Younger Lagoon Reserve (YLR); and IM 4.3.2 requires development to be sited and designed so that activity and direct light is limited to the maximum extent feasible. The pool expansion would be no taller than the top of the berm, and the existing and new fencing will screen the expanded pool facility from the adjacent YLR. Thus no direct light or activity from the mammal pool area would be visible in the original YLR, consistent with IMs 4.3.1 and 4.3.2. In addition IM 4.3.3 requires that all lighting on Campus must be provided at the lowest foot-candle levels necessary to achieve safety and efficient navigation. The Project includes the installation of new low-level LED pathway lighting along the new ramp to the underwater observation area at the dolphin pool. The proposed pathway lighting is consistent with IM 4.3.3 because it minimizes nighttime use by eliminating the use of the large area flood lights currently in place. One new light would be used to illuminate the expanded dolphin pool, but would not be visible in the original YLR because it would be screened by the fences and would be designed to limit light spillage into offsite areas, and because it also includes an on-

[8] The "original" YLR consists only of the 25 acres of land encompassing the lagoon itself and the upland habitat on the slopes surrounding the lagoon. The 47 acres of terrace lands that were added to the YLR in 2008 are not considered part of the "original" YLR.

and-off switch, meaning that the light will be turned off when it is not needed for research purposes. Ultimately, the light levels would be lower than under the existing conditions. The Project's lighting is also consistent with the applicable Chapter 6 design requirements, which generally require avoiding light spillage, minimizing light into habitat areas, and minimizing interference with the coastal night sky. In sum, the Project is consistent with the CLRDP's visual and scenic requirements.

IM 2.1.2 prohibits oversized utility lines beyond what is necessary to serve the projected needs of the campus (based on Figure 5.7). The renovation and expansion of the marine mammal pool facility would require new utility lines that would connect the new pools to the existing seawater distribution lines, and new electrical lines that would connect to the existing electrical distribution system. These utility lines would be located within and adjacent to the existing facility footprint, and not within the utility prohibition zone. Thus, the proposed project is consistent with IM 2.1.2. No other utility lines are proposed, and the Project would not increase water use or sewer discharge, therefore the Project does not raise any conformance issues with Section 5.8 utilities policies.

In addition to prohibiting expansion of utilities into the adjacent rural areas, the CLRDP includes a number of other policies aimed at stabilizing and strengthening the urban/rural border and protecting adjacent agricultural resources. The Project is consistent with such applicable policies because: (1) the buildout plan specifically allows for expansion of the outdoor research facility (IM 2.3.4); (2) the development remains clustered within the already existing facilities within the Research and Education Mixed Use areas (IM 2.3.1); and (3) the project is not located within 300 feet of established crop lines (IM 2.2.1). Another measure that ensures a logical transition from the urban landscape to the agricultural landscape is a requirement that "at least 30-percent of the land area within the Lower and Middle Terrace development zones shall be maintained in a pervious state, and free from impervious surfaces" (IM 2.3.2). The Project would increase impervious coverage by approximately 1,500 square-feet in the Lower Terrace Development Zone, which is within the allowed limit.

Because the Project will increase impervious coverage by 1,500 square-feet, and thereby create additional runoff, the Project includes a new infiltration stormwater basin to filter and treat runoff in compliance with the hydrology and water quality policies of CLRDP Section 5.7. Also, in compliance with those policies, the new infiltration basin would be planted in accordance with IM 7.1.16, which generally requires that vegetated basins must be created by low-profile natural looking berms, and replace all non-native and invasive plant species with native vegetation capable of enhancing water quality. The stormwater basin is also consistent with Chapter 6 landscape guidelines requiring plants that treat stormwater and are complementary to the surrounding rural and natural environment. Moreover, the new impervious surface would, after being filtered and treated as described above, discharge to the existing seawater return outfall. The Project will not generate additional wastewater. For these reasons, the Project is consistent with all applicable hydrology and water quality policies, as well as natural resource policies related to the discharge of stormwater (IM 3.1.2; IM 3.2.7).

CLRDP Section 5.3 provides for the protection, enhancement, and restoration of natural resources and requires, relevant to this Project, protection and restoration of habitat areas (Policy

3.2), protection of environmentally sensitive habitat areas (Policy 3.4), protection for the original YLR, protection of coastal bluffs (Policy 3.7), and conservation of cultural resources (Policy 3.8). Overall, because the Project would take place primarily in the existing developed facilities and some ruderal areas existing within fenced areas, and in conjunction with the Project's minimal area of ground disturbance, the use of no hazardous materials, and required construction monitoring, the Project is consistent with the CLRDP's natural resource protection policies.

CLRDP IM 3.2.11 requires that a survey for California red-legged frogs (CRL frogs), a federally listed species, be conducted prior to the authorization of any development project within 100 meters of an identified wetland source. For this Project, both the pool facility site and the temporary tanks at the CDFW facility are located within 100 meters of wetlands. In 2013, a biotic assessment was conducted for CRL frogs at both of the Project's development locations. The biotic assessment found that the likelihood of CRL frogs being present at the mammal pool facility site is low. For the CDFW facility, potential habitat does exist in the nearby original Younger Lagoon Reserve; however, the CDFW facility is enclosed with a perimeter fence, and no CLR frogs are likely to be present. The Project would nevertheless include typical mitigation measures to address and minimize the potential take of the CRL frog, such as such as species-specific training for construction personnel, monitoring, and protective fencing. Thus, the proposed project is consistent with IM 3.2.11.

IM 3.1.12 requires consultation with the United States Fish and Wildlife Service (USFWS) regarding a project's potential impact on species to determine whether take authorization is required. USFWS determined that the possibility of CRL frogs occurring on the Project site was low, but still recommended specific construction mitigation measures (such as a training session for all construction personnel regarding the Endangered Species Act, construction boundaries, etc.), which have been incorporated into the Project. In addition, although the biotic assessment concluded that the presence of the San Francisco Dusky-Footed Woodrat (a species of concern) and nesting birds in the proposed construction areas is relatively low, the project includes mitigation measures to protect nesting birds and the San Francisco Dusky-Footed Woodrat (including a biological survey conducted 30 to 60 days before start of construction). In addition, the adjacent berm, which will be partially excavated to provide for the project, contains no special-status plants. Also, as required by IM 3.5.6, the Administrative Director of the UCSC Natural Reserves was consulted and concurred that the Project would not result in a significant impact to the YLR.

Regarding potential impacts of noise and light on wildlife habitat, a noise technical study was conducted and concluded that the Project would not add new sources of ambient noise. Thus the Project is consistent with IM 3.4.3, which requires that noise generated by human activity on the terrace portion of the Campus not exceed 60 dBA CNEL.[9] In addition, the existing berms and the proposed fencing surrounding both the marine mammal pool facility and the CDFW facility would ensure consistency with IMs 3.5.7, 4.3.1, and 4.3.2, which require that activity, direct

[9] Community Noise Equivalent Level (CNEL) measurements are a weighted average of sound levels gathered throughout a 24-hour period. This is essentially a measure of ambient noise. Different weighting factors apply to day, evening, and nighttime periods. This recognizes that community members are most sensitive to noise in late night hours and are more sensitive during evening hours than in daytime hours.

light, and movement associated with development not be visible from within the original Younger Lagoon Reserve, or environmentally sensitive habitat areas located in the terrace portion of the Campus.

Regarding bluff setbacks, IM 3.7.1 provides that development within 100 feet of the top edge of the coastal bluff shall be prohibited, but expressly provides an exception for infrastructure improvements necessitating a near bluff edge location contemplated by the CLRDP and for minor non-building infrastructure (e.g. marine mammal pools) that are consistent with the CLRDP. Here, the Project is an expansion of the marine mammal pools that will be located less than 100 feet from the top edge of the bluff. However, this development is specifically planned for in the CLRDP and clearly meets the exception in IM 3.7.1 regarding development within 100 feet of the bluff. Thus, the Project is consistent with IM 3.7.1 regarding coastal bluff setbacks.

In summary, the improvement of the facility's existing deteriorating pools will greatly benefit marine research and provide better educational opportunities at the Campus. As proposed by the University, the proposed Marine Mammal Pool Expansion and Renovation Project is consistent with the certified CLRDP.

D. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of Title 14 of the California Code of Regulations requires the Commission to make a specific finding that a permit application is consistent with any applicable requirements of CEQA. This requirement also applies to the Commission's review of NOIDs, based on Regulation Section 13550(d). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The University, as the lead agency under CEQA, certified a Final EIR (FEIR) for the CLRDP in September 2004. In November 2006, the University certified an addendum to the FEIR to respond to changes in the CLRDP in the time since the original FEIR certification, including changes stemming from Coastal Commission review of the CLRDP prior to certification. UCSC, again acting as lead agency, conducted an environmental review for the proposed project as required by CEQA and issued a Mitigated Negative Declaration February 2014.

The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Natural Resources as being the functional equivalent of environmental review under CEQA. The Commission has reviewed the relevant coastal resource issues raised by the proposed project, and has determined that the proposed project will not have adverse impacts on coastal resources. All public comments received to date have been addressed in the findings above. All above findings are incorporated herein in their entirety by reference.

The Commission finds that the proposed project will avoid significant adverse effects on the environment, within the meaning of CEQA. As such, there are no additional feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse environmental effects that approval of the proposed project would have on the environment within the meaning of CEQA. The proposed project will not result in any

significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

1. University of California, Santa Cruz, Physical Planning and Construction, Marine Mammal Pools Renovation and Expansion Project, Final Initial Study/ Mitigated Negative Declaration, February 2014.
2. UC Santa Cruz Marine Science Campus Coastal Long Range Development Plan, updated October 2013.

UC Santa Cruz Mammal Pool Expansion and Renovation

[redacted]

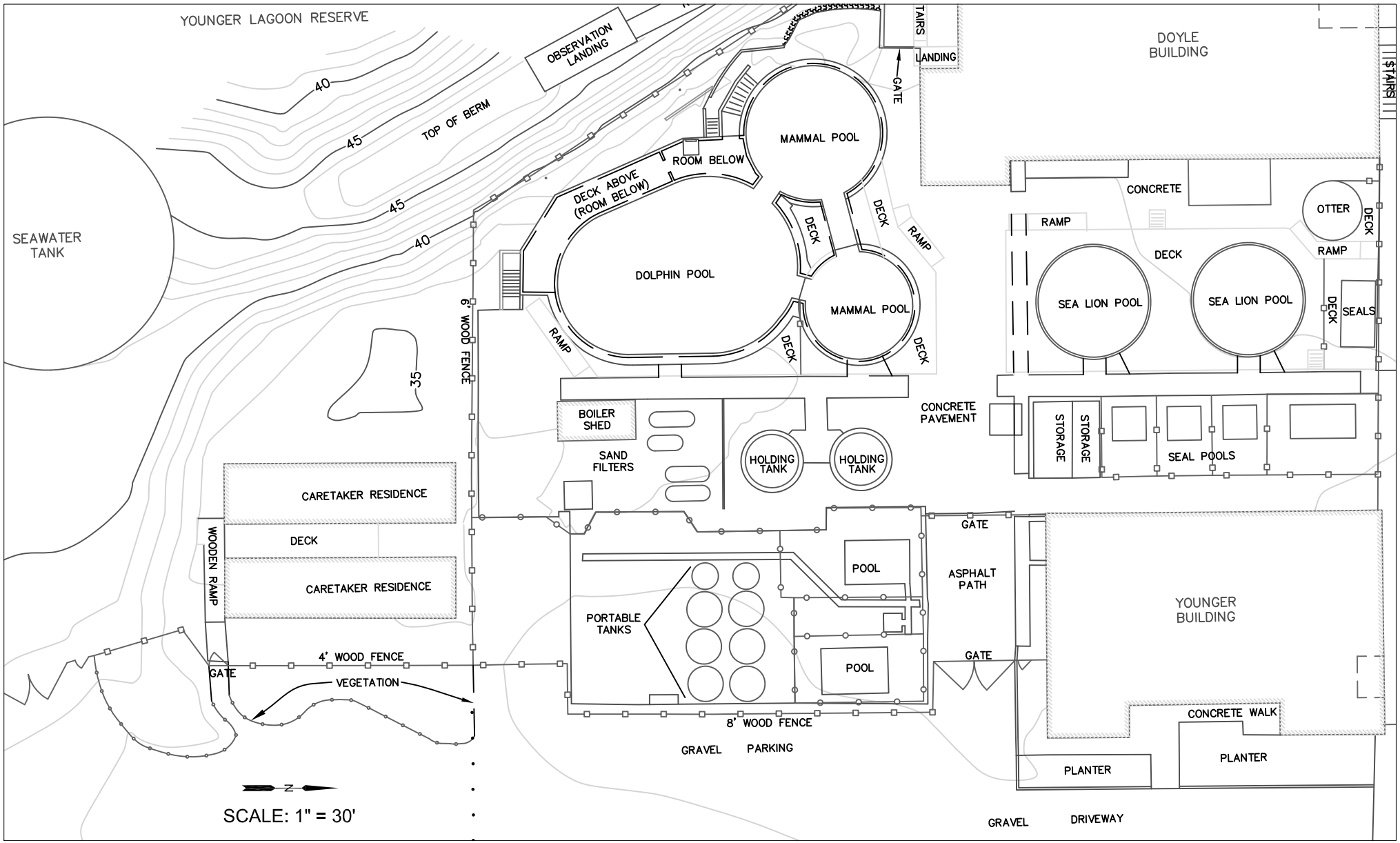
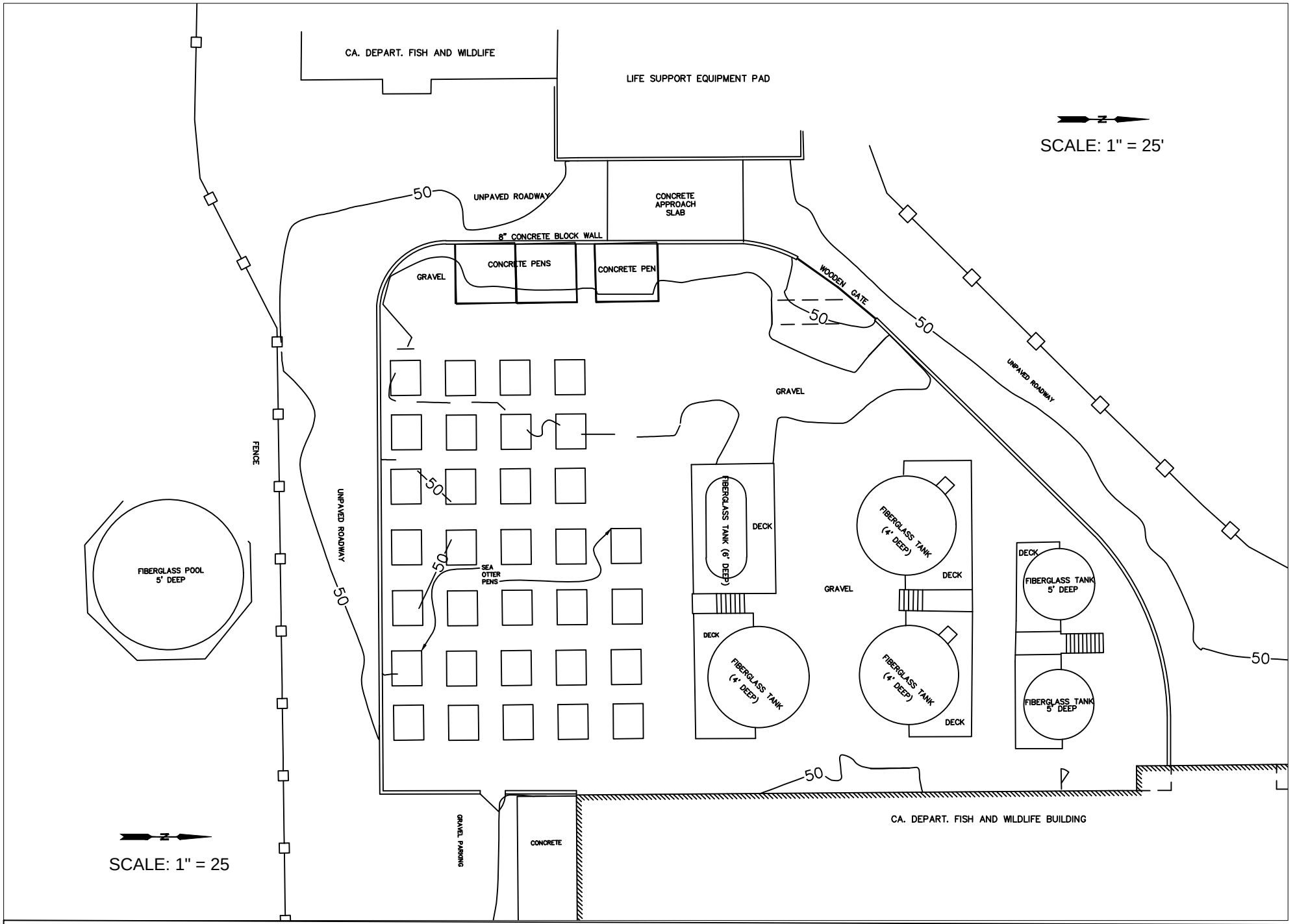


Figure 2

UC Santa Cruz Mammal Pool Expansion and Renovation

UCSC Mammal Pool Facility, Existing Site Plan



UC Santa Cruz Mammal Pool Expansion and Renovation

Figure 3
CDFW Mammal Pool Facility, Existing Site Plan

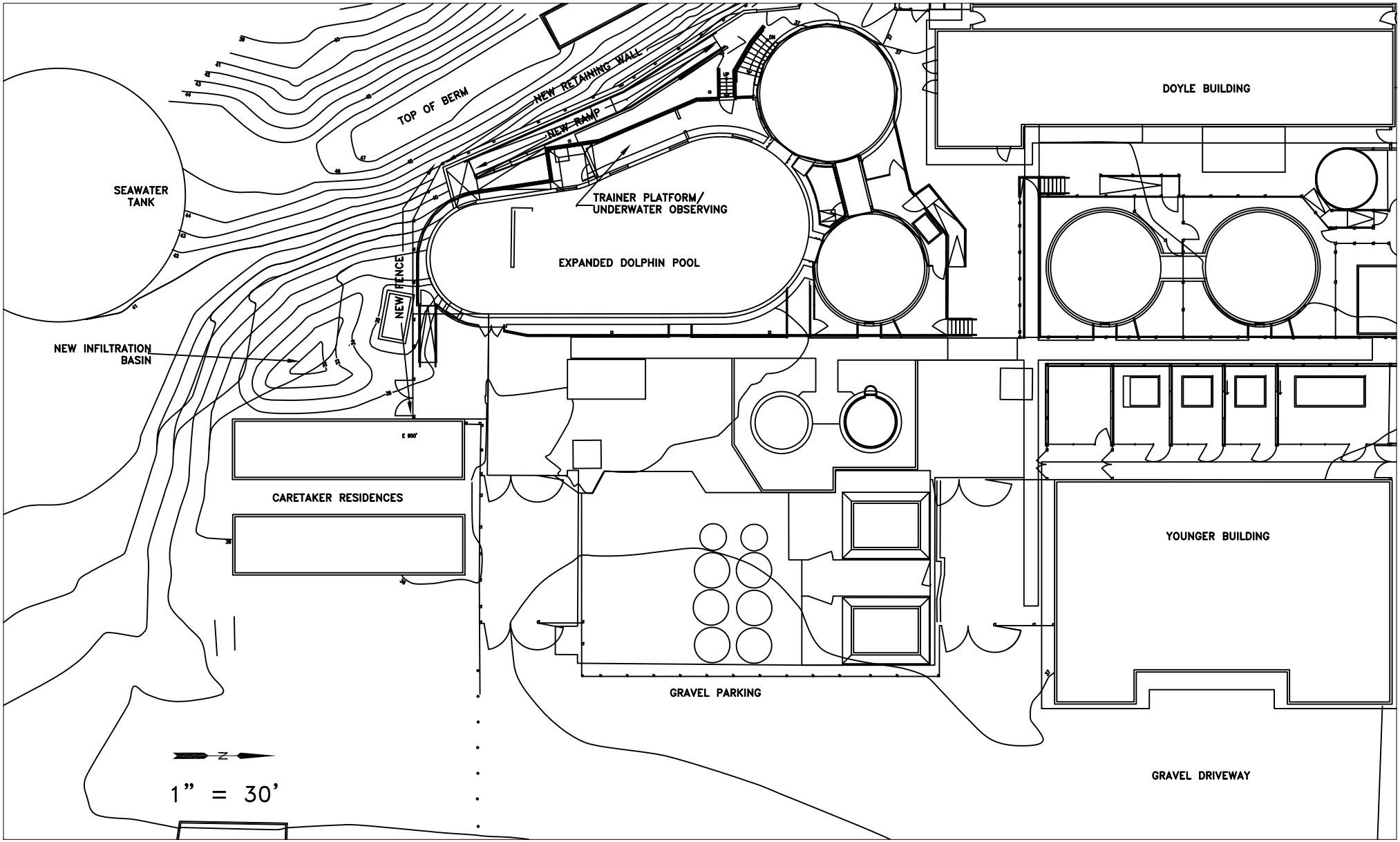


Figure 4
UCSC Mammal Pool Facility, Proposed Site Plan

UC Santa Cruz Mammal Pool Expansion and Renovation

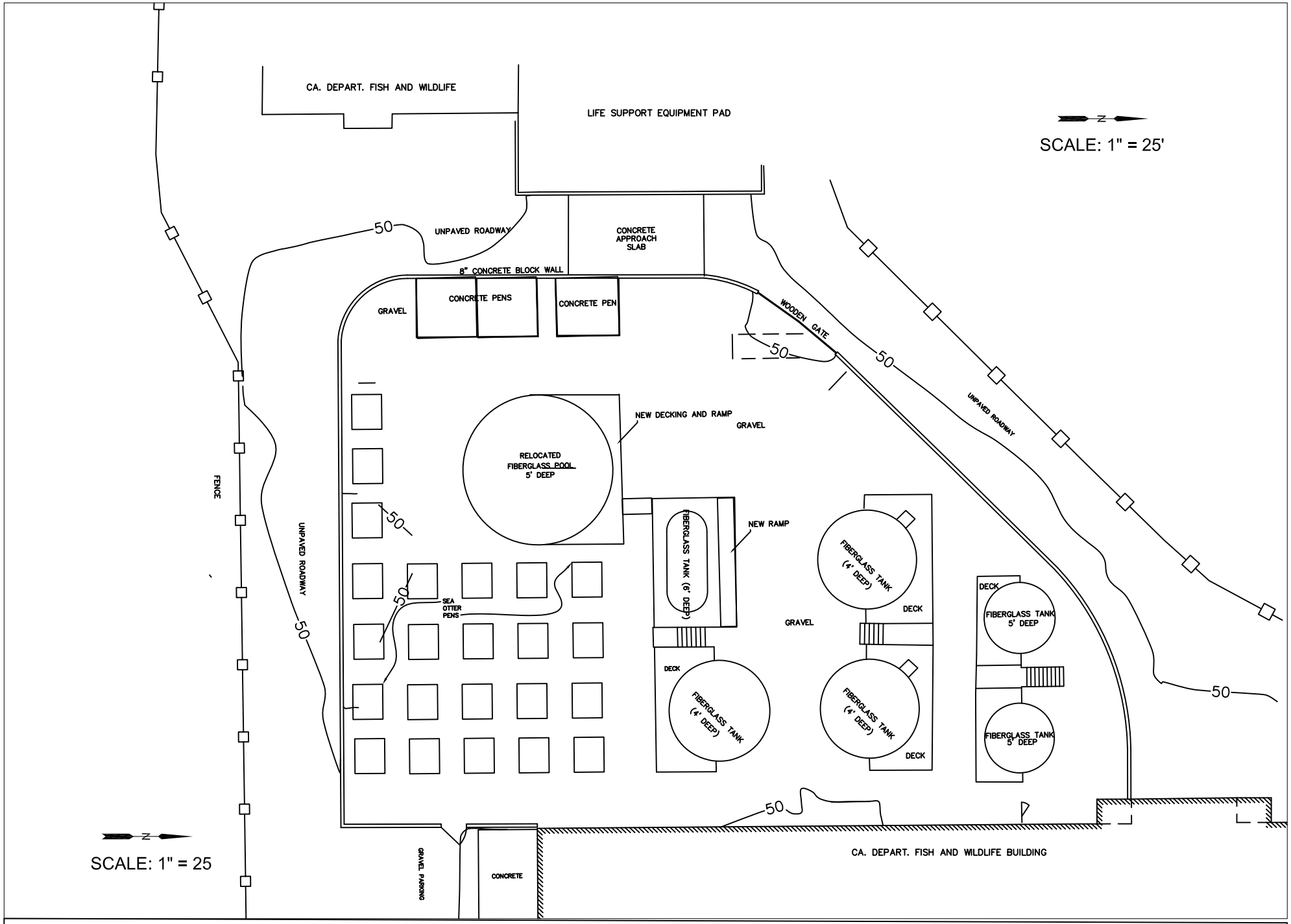


Figure 5

UC Santa Cruz Mammal Pool Expansion and Renovation

UCSC Mammal Pool Facility, Existing Site Plan

University's control, the Planning Director (UCSC) shall notify the Executive Director (CCC) of the manner in which the University proposes to remedy the default and a mutually acceptable schedule for monitoring and reporting progress on correcting the deficiency.

5.2. Land Use

This section sets forth the general plan for land use on the Marine Science Campus.

5.2.1. Building Program

The building program for the Marine Science Campus consists of eight program elements, and each of these is described below. Figure 5.1, Building Program (New Construction Only), sets forth the maximum allowable floor area for each building program element prescribed by this plan. Facilities that are ancillary to each of the eight program elements (such as outdoor patios, walkways, minor storage and service areas, etc.) are allowed as part of each element. Above ground ancillary facilities (e.g., storage sheds, etc.) shall be counted as part of the maximum square footages identified in each case, but ground-level ancillary facilities (e.g., walkways, patios, etc.) shall not.

Marine Research and Education Facilities

These are the major facilities associated with the operation of marine research laboratory and educational facilities and are limited to all existing facilities (except facilities specifically identified for removal in Figure 5.1 below), plus a total maximum of up to 254,500 additional square feet of facilities for the following uses:

- Laboratories, wet and dry, connected with the marine sciences,
- Teaching and seminar rooms associated with the marine educational or scholarly activities,
- Offices in support of the primary laboratory or educational activity.

Outdoor Research Areas

This includes existing outdoor research areas, plus a total maximum of up to 70,000 additional square feet of outdoor research area to be used in conjunction with marine research and education activities, including:

- Outdoor marine research pools,
- Other organized outdoor marine research facilities.

Support Facilities

These facilities provide places for scientists, faculty, students, staff, and visitors to meet, eat, and recreate, and are limited to:

- A seminar auditorium with a maximum of 350 seats, with a maximum of 5,000 square feet,
- Meeting rooms with a maximum of 200 seats total, with a maximum of 2,500 square feet total,
- Food service facilities, with a maximum of 3,500 square feet total,

Fig. 5.1 Building Program (New Construction Only)

Program Element	*Maximum Quantity*	*Units*
NEW BUILDINGS		
Marine Research and Education Facilities		
Marine Research and Education Uses	254,500	sq ft (gfa)
Temporary Office Trailers (to be removed)	-3,000	sq ft (gfa)
Support Facilities	19,000	sq ft (gfa)
Short-Term Accommodations		
10 Visitor/Overnight Rooms	2,500	sq ft (gfa)
30 Researcher Rooms	12,000	sq ft (gfa)
Caretaker Accommodations		
2 Caretaker Housing Units (Replacement units only)	1,600	sq ft (gfa)
2 Temporary Caretaker Housing Units (to be removed)	-1,400	sq ft (gfa)
Campus Entrance Facilities		
Campus Entrance Kiosk	125	sq ft (gfa)
Equipment Storage and Maintenance		
Centralized Warehouse	37,500	sq ft (gfa)
SUBTOTAL NEW BUILDINGS	322,825	sq ft (gfa)
OUTDOOR DEVELOPMENT		
Outdoor Research		
Outdoor Research Area	70,000	sq ft
Equipment Storage and Maintenance		
Open Laydown Yards	70,000	sq ft
Seawater System		
4,000 GPM Seawater System Expansion	12,000	sq ft
SUBTOTAL OUTDOOR DEVELOPMENT	152,000	sq ft
ADDITIONAL PARKING	604	spaces

Note: For the purpose of this CLRDP, gross floor area (gfa) shall be derived using Outside Gross Area method OGSF50. OGSF50 = Basic Gross Area+50% of the reported Covered Unenclosed Gross Area. The Basic Gross Area is the sum of all areas, finished and unfinished, on all floors of an enclosed structure (i.e., within the environmentally controlled envelope) for all stories or areas which have floor surfaces. The Covered Unenclosed Gross Area is the sum of all covered or roofed areas of a building located outside the enclosed structure (i.e., the environmentally controlled envelope) for all stories or areas that have floor surfaces.

5.2.2. Land Use Designations and Diagram

Five land use designations have been created for the UCSC Marine Science Campus: 1) research and education mixed use, 2) resource protection, 3) resource protection buffer, 4) wildlife corridor, and 5) open space. Figure 5.2, Land Use Diagram, shows the geographic location of these designations on the Marine Science Campus. The full-size version of this diagram is included in a pocket behind the back cover of the CLRDP. Figure 5.3, Locational Restrictions for Building Program, provides additional control over the location of individual building program elements within the Research and Education Mixed Use designation. The intended effect of the designations established by this subsection, the location of these designations and of uses within these designations, and the uses allowed within each are set forth below.

Research and Education Mixed Use

The primary purpose of this land use designation is to accommodate existing permitted uses and the building program elements set forth in Subsection 5.2.1 above. The building program elements allowed in each of the four areas designated for Research and Education Mixed Use and their maximum allowed intensities are specified in Figure 5.1. Additionally, utilities, lighting, signage, trails, drainage facilities, and landscaping are allowed in this designation.

The distribution of building program elements among the Lower, Middle, and Upper Terrace development zones, as shown in Figure 5.3, reflects the allocation of developable campus land that directly borders the sea primarily to new development that is most coastal dependent: the seawater system, marine research and education, coastal public access and recreation, and limited parking related to these uses. The other building program uses, which support these more coastal-dependent uses, are precluded from the Lower Terrace. The one exception is the caretaker housing units, which may be located close to the outdoor research areas located in the Lower Terrace. In addition, temporary desalinization research and organic agriculture uses and development are allowed in this designation on an interim basis as described above. Campus entrance facilities are limited to the campus entry development zone.

Resource Protection

The primary purpose of this designation is to protect wetlands and Environmentally Sensitive Habitat Areas (ESHA). Areas that are identified in this CLRDP as Resource Protection include most of the original Younger Lagoon Reserve, intertidal areas along the coast, and the delineated seasonal wetlands on the upland terrace. Uses and development allowed in the Resource Protection designation shall include adequate measures to ensure that resources are protected against any significant disruption of habitat values and are limited to:

- Habitat creation, enhancement, and restoration,
- Scientific and educational study,
- Nature/interpretative study,
- Other resource-dependent activities,

Fig. 5.2 Land Use Diagram

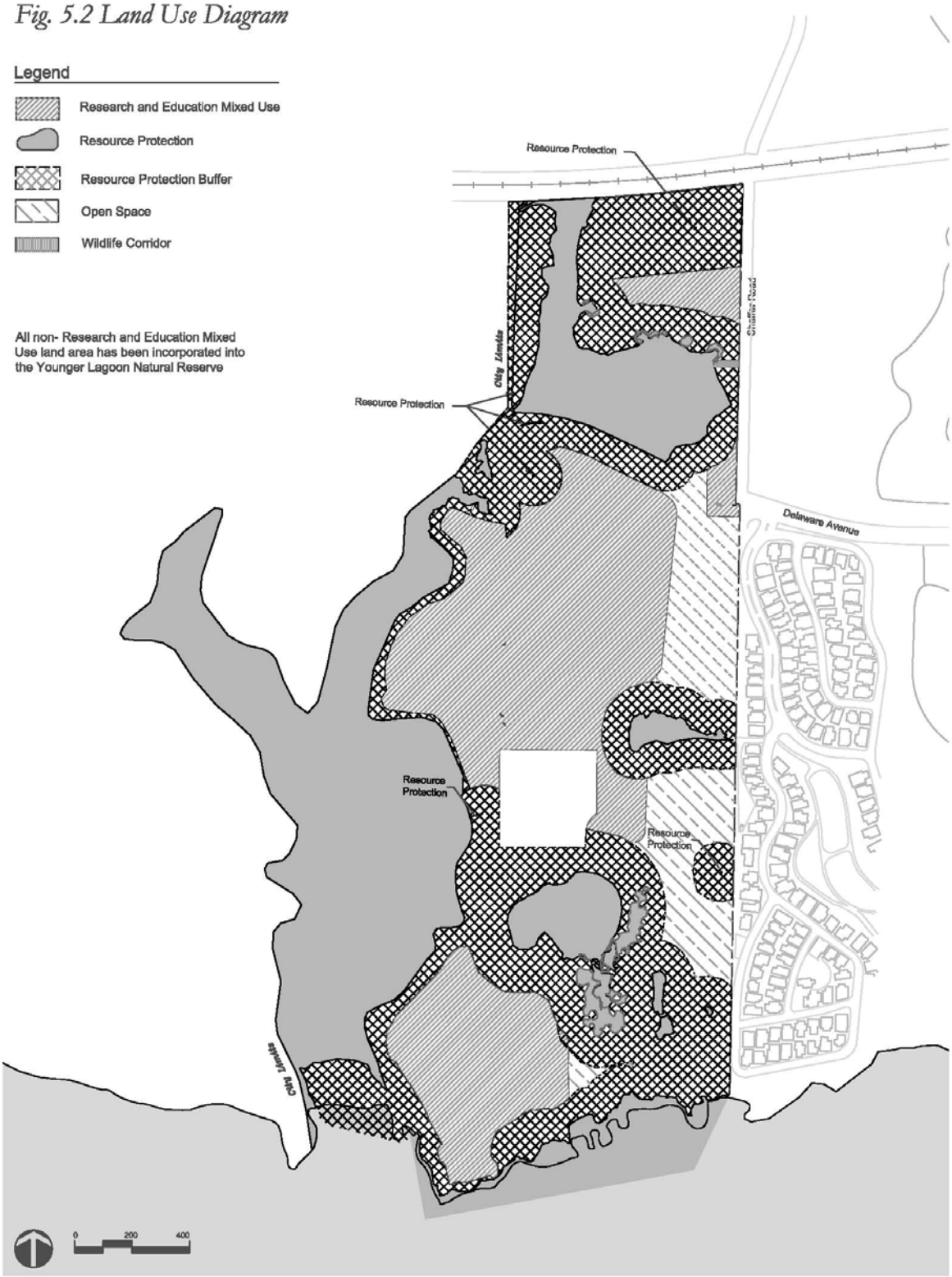


Fig. 5.3 Locational Restrictions for Building Program (see Figure 5.4 for subarea locations)

Program Element	*Lower Terrace Development Zone*	*Middle Terrace Development Zone*	*Upper Terrace Development Zone*	*Campus Entrance Development Zone*
Marine Research and Education	----------No locational restrictions----------			Not allowed
Outdoor Research Area	Limited to existing facilities, plus a combined total maximum of 10,000 square feet of additional outdoor research area	Limited to existing facilities, plus a combined total maximum of 60,000 square feet of additional outdoor research area in the Middle and Upper Terrace development zones together		Not allowed
Support Facilities	Limited to existing facilities	Not allowed in Subareas No. 6, 7, or 10	Not allowed	Not allowed
Short-term Accom-modations				
Researcher	Not allowed	Not allowed in Subareas No. 2 or 7	Not allowed	Not allowed
Overnight	Not allowed	Not allowed in Subareas No. 2, 6, 7, or 10	Not allowed	Not allowed
Caretaker Accom-modations	Not allowed in Subareas No. 2, 6, 7, 10 or 14		Not allowed	Not allowed
Equipment Storage and Maintenance Facilities	Limited to existing facilities, plus new facilities ancillary to allowed uses	Not allowed in Subareas No. 4, 5, 6, 7, 9, or 10		Not allowed
Public Access and Rec. Fac.	----------No locational restrictions----------			
Seawater System	----------No locational restrictions----------			
Parking Fac.	----------No locational restrictions----------			
Campus Entrance Fac.	----------Not Allowed----------			No locational restrictions

Note: *Fig. 5.3 does not supersede other CLRDP provisions that provide additional detail on where certain types of development and uses are allowed. Other CLRDP provisions remain in effect and must be understood in tandem with the locational restrictions identified here.*

5.2.3. Land Use Policies

Stable Urban/Rural Boundary

Policy 2.1 Maintaining a Stable Urban/Rural Boundary
Development and use of the site shall be carried out in a manner designed to limit urban development north and west of the campus.

Implementation Measure 2.1.1 – Oversizing of Utility Lines Prohibited. *Utilities on the campus shall be limited to the size necessary to serve only the projected needs of the campus.*

Implementation Measure 2.1.2 – Utility Prohibition Zone. *New sewer and/or water utility lines and/or expansion of existing lines shall be prohibited within the utility prohibition zone at the western edge of the Campus (see Figure 5.7).*

Policy 2.2 Strengthening the Urban/Rural Boundary through the Protection of Adjacent Agricultural Resources
The urban/rural boundary shall be strengthened by avoiding conflicts with adjacent agricultural uses.

Implementation Measure 2.2.1 – Setback of Development and Uses from Adjacent Agricultural Use. *All caretaker accommodations shall be located no closer than 500 feet from the western Campus property line. All other development and uses shall be located no closer than 300 feet from established crop lines (as shown on Figure 3.15) and no closer than 200 feet from the western Campus property line, whichever is the greater distance, except that existing (i.e., pre-CLRDP certification) development and uses (and/or redevelopment and/or reuse of same, including minor expansion of the California Department of Fish and Game facility); ancillary unoccupied structures that support research activities; and public access and recreation facilities and features shown in Figure 5.6 and/or described in Section 5.6 in these agricultural setback areas shall be allowed without restriction with respect to agricultural setback. Short-term accommodations may be located in the area between the 300-foot/200-foot setback and the 500-foot setback only if users of such accommodations are prohibited from staying in the accommodations for more than one week at a time.*

Policy 2.3 Designing for the Urban Edge
Development on the Marine Science Campus shall be sited and designed to sustain a logical transition from urban landscape to rural and agricultural landscape.

Implementation Measure 2.3.1 – Cluster Development. *Except for allowed drainage facilities, development shall be clustered within, and open space shall be preserved outside of, areas designated for Research and Education Mixed Use including through such means as building clustering, building articulation and scale reduction at the boundary of development zones, rural/agricultural building design, limited lighting, and vegetative and other screening of development, as well as by use of agricultural setbacks, habitat buffers, natural habitats, view corridors, and open space areas. Among other things, this siting and design approach is intended to reinforce the sense of urban edge created by the canyon topography of the original Younger Lagoon Reserve, existing development, and the Santa Cruz city limit.*

Implementation Measure 2.3.2 – Impervious Coverage. *At least 30 percent of land area within the Lower and Middle Terrace development zones shall be maintained in a pervious state and free of impervious surfaces. One hundred percent of the land area within the Upper Terrace and Campus Entrance development zones may be developed with impervious surface as long as water quality standards are met.*

Implementation Measure 3.2.1 – Restoration of Wetlands on the Marine Science Campus. *As part of the University's comprehensive effort to manage natural resources on the Marine Science Campus, wetlands on the northern part of the site shall be connected, expanded, and restored to enhance their functional values. Such restoration program shall include integrating the hydrology of Wetlands W1 and W2 and expanding this consolidated area to provide enhanced biological values. The areas both east and west of the combined Wetland W1/W2 hydrologic corridor shall be restored as functioning wetland upland/transitional habitat, including as described in Appendix A (Resource Management Plan). The restoration program shall also enhance plant biology in Wetlands W1, W2, and W6 to create a consolidated north-south corridor for wildlife movement to YLR (original YLR). As part of any development project involving wetland manipulation, a restoration plan shall be prepared consistent with this CLRDP including its Resource Management Plan (Appendix A) and submitted to the California Coastal Commission, California Department of Fish and Game, and the U.S. Fish and Wildlife Service for review and comment.*

Implementation Measure 3.2.2 – Management of Terrace Wetlands. *The terrace wetlands shall be protected and enhanced by improving surface water flow, removing non-native and invasive plants, promoting the abundance and diversity of native plant species through small-scale plantings, creating buffers, implementing the Drainage Concept Plan (Appendix B), controlling access by humans and non-native animals, and implementing other enhancement measures in accordance with the provisions of this CLRDP, including its Resource Management Plan (Appendix A).*

Implementation Measure 3.2.3 – Protection and Enhancement of Wildlife Movement. *Wildlife movement across the site shall be facilitated and enhanced by establishing two enhanced wildlife corridors and associated buffers adjacent to the Upper Terrace development area (as shown in Figure 5.2) that provide enhanced habitat value and wildlife connectivity in the area between the original Younger Lagoon Reserve and the Moore Creek/Antonelli Pond system east of the Campus. Conditions for wildlife movement in these areas shall be enhanced by eliminating invasive weeds, planting native species to provide better protective cover and visual screening for wildlife than existing vegetation, controlling access by humans and non-native animals, providing fencing/building elements at the development zone boundary that screen Upper Terrace development zone noise, lights, and activities from wildlife in the corridors/buffers, and other enhancement measures in accordance with the provisions of this CLRDP, including its Resource Management Plan (Appendix A). The University shall also coordinate with the owners of the properties immediately east of Shaffer Road and the City of Santa Cruz (in the case of Shaffer Road itself) to promote the extension of the wildlife corridors and wildlife corridor buffers across Shaffer Road and to Moore Creek/Antonelli Pond in the manner most protective of wildlife (see also parameters for wildlife corridors in the Resource Management Plan (Appendix A).*

Implementation Measure 3.2.4 – Management of Special Status Species Habitat. *Special status animal species and their habitats shall be protected, and their habitats enhanced consistent with the Resource Management Plan (Appendix A), including through protection and enhancement of wetland habitats (including for California red-legged frog) and grassland/scrub-grassland habitats outside of development zones (including for special status bird species), through protection from non-native predators, and through implementation of other enhancement measures in accordance with the provisions of this CLRDP.*

Implementation Measure 3.2.5 – Protect Habitat Areas From Human Intrusion. *Habitat areas on the Marine Science Campus shall be protected against degradation from human intrusion by developing trails and interpretive signs, managing trail use, and implementing other enhancement measures in accordance with the provisions of this CLRDP.*

Implementation Measure 3.2.6 – Natural Area Management. *The University shall restore, enhance, and manage all areas located outside of defined development zones (except for approved streets and trails) as high-quality open space and natural habitat area.*

Implementation Measure 3.2.7 – Management of Water Quality and Drainage Features. *Water quality shall be protected and enhanced and erosion shall be minimized by means including implementation of the Drainage Concept Plan contained in this CLRDP (see Appendix B). The vegetated stormwater basins, vegetated filter strips, vegetated swales, and other natural drainage features to be installed per the Drainage Concept Plan may exhibit ephemeral wetland and/or habitat characteristics over time, but their primary function is for water quality filtration and treatment, flow control, and infiltration. As such, maintenance within them on a regular basis is expected and necessary in this respect, and is allowed per this CLRDP (see maintenance parameters in the Drainage Concept Plan). It is the intent of the California Coastal Commission in approving installation of these drainage features that they not be treated as wetlands including for purposes of Implementation Measure 3.2.9, except that site specific mitigation measures other than setbacks may be required for development proposed adjacent to such features, to minimize impacts of construction and development on any sensitive resources identified pursuant to Implementation Measures 3.3.1 and 3.4.4.*

Implementation Measure 3.2.8 – Maintenance and Monitoring of Terrace Habitats. *Long-term maintenance and monitoring programs for the terrace habitats shall be developed and implemented in accordance with the provisions of this CLRDP.*

Implementation Measure 3.2.9 – Wetland Buffers. *Buffers for wetlands delineated at the time of CLRDP certification shall be as shown on Figure 5.2 and in no case shall they be reduced. For any new wetlands identified and delineated pursuant to Implementation Measure 3.3.1, development shall be sited and designed to minimize wetland impacts, and development shall be prohibited within a 100 foot buffer of any such wetlands unless it is development allowed within areas designated Resource Protection Buffer, except that a reduced or greater buffer distance may be applied if supported by a site-specific biological evaluation indicating that a reduced buffer would not result in a significant adverse effect to the wetland, or that a greater buffer distance is needed. To the extent that new wetland areas are identified pursuant to Implementation Measure 3.3.1 and the appropriate buffer area is not already designated Resource Protection Buffer on Figure 5.2, the Resource Protection Buffer designation shall be applied to the wetland buffer area.*

Implementation Measure 3.2.10 – Natural Areas Habitat Management. *Within six (6) months of CLRDP certification, the University in consultation with the Executive Director of the California Coastal Commission shall convene a scientific advisory committee (SAC) to guide the restoration, enhancement, and management of natural areas (i.e., all areas outside defined development zones, except for the original Younger Lagoon Reserve) on the Marine Science Campus (see Appendix A). Natural areas restoration, enhancement, and management may be completed in up to three phases corresponding to dividing the natural area into thirds (i.e., where Phase 1 accounts for at least one-third of the natural area, Phase 1 plus Phase 2 accounts for at least two-thirds, and all of the three phases together account for all of the natural area). All restoration, enhancement, and management activities shall be guided by Specific Resource Plans developed by the University in accordance with the SAC and the criteria contained in the Resource Management Plan (Appendix A) and current professional standards for such plans. The SAC shall be responsible for guiding development of Specific Resource Plans and shall complete its work on the Specific Resource Plan for Phase I restoration and enhancement efforts within four (4) months of convening. The content of Specific Resource Plans shall be consistent with the performance standards set forth in Appendix A, which may be adapted periodically based on findings from ongoing restoration work. The University shall file a Notice of Impending Development for Phase I work within one (1) year of CLRDP certification. All natural areas restoration and enhancement shall be completed within 20 years of CLRDP certification, with interim benchmarks that at least one-third of the restoration and enhancement shall be completed within seven years of CLRDP certification and that at least two-thirds shall be completed within 14 years of CLRDP certification.*

Implementation Measure 3.2.11 – CRLF Protection. *Surveys for California red-legged frog shall be conducted prior to authorization of any development project within 100 meters of an identified wetland resource. All authorized development shall include construction and post-construction safe passage and other mitigation measures (e.g., barriers along development perimeters) as appropriate.*

Implementation Measure 3.2.12 – USFWS Consultation Required. *Development project authorizations shall include either (1) evidence of authorization by the U.S. Fish and Wildlife Service, including but not limited to a Habitat Conservation Plan/incidental take permit; or (2) evidence from the USFWS that no authorization is required.*

Implementation Measure 3.2.13 – Rodenticides. R*odents on the Campus may be controlled as necessary to maintain public health and safety. Rodenticide use shall be prohibited outside of developed areas within development zones. The impacts on non-target species from any rodenticide used on the Campus shall be minimized to the maximum extent feasible. Rodent control areas shall be reviewed for the potential presence of non-target species – including special-status species – and the rodent control methods tailored to minimize non-target species impacts. When chemical control is required, the use shall be guided by label restrictions and any advisories published by the California Department of Pesticide Regulation or the County Agricultural Commission. In areas occupied by burrowing owls, fumigants shall not be used unless specifically determined safe by a qualified biologist. If necessary, alternative methods of rodent control shall be determined by a qualified biologist. The rodenticide applicator shall remove carcasses of poisoned animals, when they are found, to minimize secondary toxic effects on raptors or other wildlife. Carcass survey and disposal shall be performed in the treated area and the area surrounding it beginning on the third day following the initial exposure of toxic baits. Any exposed carcasses shall be disposed of in a manner inaccessible to wildlife. Carcass surveys shall continue for at least five days after toxic baiting has ceased and thereafter until no more carcasses are found.*

Implementation Measure 3.2.14 – Non-Invasive Native Plant Species Required. *All landscaping and vegetation on the Campus (including restoration and enhancement plantings, screening vegetation, stormwater system plantings, ornamental plantings, and all other plant material) shall be limited to non-invasive native plant species that are appropriate to the habitat and region and that are grown from seeds or vegetative materials obtained from local natural habitats so as to protect the genetic makeup of natural populations. Horticultural varieties shall not be used. Only locally collected seed, cuttings, and/or other propagules shall be used for landscaping. If feasible, materials should be collected from similar habitats on the first and lower reaches of the second marine terraces along the coast of western Santa Cruz County and southern San Mateo County.*

Policy 3.3 Use and Protection of Coastal Waters and Wetlands

The diking, filling, or dredging of open coastal waters and wetlands shall be permitted where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) incidental public service purposes, including but not limited to, burying cables and pipes or inspection of existing intake and outfall lines, (2) restoration purposes, and (3) nature study, aquaculture, or similar resource dependent activities. In addition, the diking, filling, or dredging of existing wetlands shall maintain or enhance the functional capacity of the wetland.

Implementation Measure 3.3.1 – Pre-development Evaluation of Wetland Conditions. *An evaluation of the development area shall be conducted prior to each development project. The evaluation shall include any changed site conditions that could affect wetland values protected by this CLRDP. A wetland evaluation shall be completed in the proposed development area (i.e., the proposed development footprint and a surrounding 200-foot buffer area) in consultation with the Executive Director, using the Coastal Act 30121 wetland definition. To the extent wetland areas are identified during this process that are not already designated Resource Protection on Figure 5.2, the Resource Protection designation shall be applied to the newly identified wetland area and uses and development limited in*

accordance with that designation (see Section 5.2.2, Resource Protection). For any newly identified wetland area, an appropriate buffer shall be established, based upon site-specific conditions in accordance with Implementation Measure 3.2.9.

Implementation Measure 3.3.2 – Update CLRDP With Respect to Wetlands. *For any wetlands and wetland buffers identified pursuant to implementation measures 3.3.1 and 3.2.9, the University shall amend the CLRDP to reflect the newly identified wetlands and wetland buffers, including all relevant CLRDP text, figures, and use and development restrictions applicable to those areas, and to remove those areas from development zones. The CLRDP amendment shall be submitted to the Coastal Commission before the effective date of the related development project authorization.*

Policy 3.4 Protection of Environmentally Sensitive Habitat Areas (ESHAs)
Environmentally sensitive habitat areas (ESHAs) shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. Development in areas adjacent to environmentally sensitive habitat areas shall be sited and designed to prevent impacts that would significantly degrade those areas, and shall be compatible with the continuance of those habitat areas. ESHAs have been designated as "Resource Protection" in this CLRDP, and the uses and development allowed in this designation are identified in Section 5.2.2. ESHAs shall be buffered from urban uses as shown in Figure 5.2 and described in Section 5.2.2 (Resource Protection Buffer subsection).

Implementation Measure 3.4.1 – Additional Measures to Protect Habitat Areas. *Buffering of sensitive habitat areas shall also be achieved through development restrictions consistent with the policies and programs of this CLRDP, including those that regulate the location of windows, lighting, access, signage, and noise-generating equipment that would disrupt protected habitat values.*

Implementation Measure 3.4.2 – Noise Intrusion into Terrace ESHA. *Development shall be sited and designed so that noise sources are no closer than 100 feet from designated Resource Protection areas located in the terrace portion of the Marine Science Campus (other than development, such as paths, that may include minimal noise sources and that is planned and/or located within 100 feet of these areas and where measures are taken so that noise potentially audible from within these areas is limited to the maximum extent feasible). Use of Campus facilities shall occur in a manner that does not result in undue noise into designated terrace area Resource Protection areas. Noise shall be monitored periodically or upon complaint and appropriate noise attenuation measures shall be immediately implemented to lower any unacceptable noise generation.*

Implementation Measure 3.4.3 – Noise Intrusion into YLR (original YLR). *YLR (original YLR) shall not be exposed to noise generated by human activity on the terrace portion of the Marine Science Campus in excess of 60 dBA CNEL, as measured at the boundary of the YLR (original YLR). For the purposes of this measure, "dBA CNEL" means a 24-hour energy equivalent level derived from a variety of single noise events, with weighting factors of 5 and 10 dBA applied to the evening (7pm to 10pm) and nighttime (10pm to 7am) periods, respectively, to allow for the greater sensitivity to noise during these hours.*

Implementation Measure 3.4.4 -- Pre-development Evaluation of ESHA Conditions. *An evaluation of the development area shall be conducted prior to each development project. The evaluation shall include changed site conditions that may affect ESHA values and new information that was not known at the time of the original ESHA determination. To the extent ESHA areas are identified during this process that are not already designated Resource Protection on Figure 5.2, the Resource Protection designation shall be applied to the newly identified ESHA and uses and development limited in accordance with that designation (see section 5.2.2, Resource Protection). For any newly*

identified ESHA area, an appropriate buffer shall be established, based on site-specific biological evaluation, and designated as Resource Protection Buffer.

Implementation Measure 3.4.5 – Update CLRDP With Respect to ESHA. *For any ESHA and ESHA buffers identified pursuant to implementation measures 3.4.4, the University shall amend the CLRDP to reflect the newly identified ESHA and ESHA buffers, including all relevant CLRDP text, figures, and use and development restrictions applicable to those areas, and to remove those areas from development zones. The CLRDP amendment shall be submitted to the Coastal Commission before the effective date of the related development project authorization.*

Younger Lagoon Reserve

Policy 3.5 Special Protection for the Original Younger Lagoon Reserve
The University recognizes the special biological significance of the original Younger Lagoon Reserve for habitat value and for research and education and therefore shall continue to provide special protection for the property by retaining it as part of the University's Natural Reserve System and protecting it consistent with this CLRDP.

Implementation Measure 3.5.1 – Protection and Enhancement of YLR Habitats. *The native plant and animal habitats of Younger Lagoon Reserve (original YLR) shall be protected and enhanced by controlling and removing non-native and invasive plant species, promoting the abundance and diversity of native plant species through small-scale plantings and re-vegetation of areas where exotics and/or invasives have been removed, implementing the Drainage Concept Plan (Appendix B), maintaining and installing fencing/barriers consistent with this CLRDP to control trespass from the terrace portion of the site into YLR (original YLR), limiting access by humans (except access otherwise allowed by this CLRDP), prohibiting domestic pets, and other appropriate means that may become available.*

Implementation Measure 3.5.2 – Protection of Special Status Species in YLR. *Habitats for special status animal species that use Younger Lagoon Reserve (original YLR) shall be protected and enhanced.*

Implementation Measure 3.5.3 – Protection of YLR Resources. *The biological productivity and quality of YLR (original YLR) shall be protected, including by minimizing the effects of stormwater discharges and entrainment, controlling runoff, preventing depletion of ground water supplies, maintaining natural vegetation buffers areas and minimizing alteration of natural features.*

Implementation Measure 3.5.4 – Development of Monitoring and Maintenance Program. *Long-term maintenance and monitoring programs for Younger Lagoon Reserve (original YLR) shall be developed and implemented to assist in long-term preservation of species and habitats in accordance with the provisions of this CLRDP.*

Implementation Measure 3.5.5 – Siting of Windbreak Vegetation. *The windbreak vegetation required by this CLRDP in connection with new development in the terrace portion of the site (see for example Section 6.5 and Figure 6.6) shall be sited to maximize their ability to screen terrace development as seen from Younger Lagoon Reserve (original YLR).*

Implementation Measure 3.5.6 – YLR Manager Consultation. *Development shall not be authorized by the University without consultation with the YLR Manager. Development shall incorporate measures to address issues and impacts identified through the consultation.*

Implementation Measure 3.5.7 – Movement Not Visible From YLR (Original YLR). *Movement associated with development (including within outdoor activity/research areas and buildings, and including all windows in buildings) shall not be visible from within YLR (original YLR).*

Implementation Measure 3.5.8 – Protective Measures for YLR (Original YLR) in Middle Terrace. *In conjunction with building construction west of McAllister Way in the Middle Terrace development zone, the University shall construct and/or plant protective barriers along the eastern edge of YLR (original YLR) in Development Subarea #7 and, if appropriate, extending south to connect to the existing berm. Such barriers may include fencing, dense vegetation, and/or an earthen berm. If an earthen berm is developed, it shall be sized so that no soil importation is required from outside the Marine Science Campus (i.e., the soil required to construct it would be less than or equal to the amount of soil that becomes available within the campus as a result of grading to prepare development sites), unless importation of additional soil is necessary to ensure proper berm function/configuration; and such soil is demonstrably clean and free of contaminants (including foreign seed stock). Any such berm shall be planted with native grasses and herbaceous shrubs consistent with CLRDP Appendix B, Resource Management Plan.*

Policy 3.6 Public Access to and within YLR (Original YLR)

Access to the original Younger Lagoon Reserve may be controlled consistent with the need to protect YLR resources from disruption and degradation and to provide maximum public access consistent with the Coastal Act.

Implementation Measure 3.6.1 – Provision of Controlled Access within YLR (Original YLR). *Physical access within YLR (original YLR) by authorized management, emergency, research, student personnel, and/or docent-led general public consistent with the public access and recreation diagram and policies contained in this CLRDP shall be provided.*

Implementation Measure 3.6.2 –Visual Access to YLR (Original YLR). *Visual access to YLR (original YLR) shall be provided for the general public through overlooks (see Figure 5.5), at least one of which shall be available for unescorted (i.e., non-docent) public use.*

Implementation Measure 3.6.3 - Public Beach Access within YLR (Original YLR). *Supervised beach access to Younger Lagoon beach shall be provided to the general public consistent with and pursuant to a management plan for such access that is based on the best possible assessment of the capacity of the beach area to sustain use and the level of intensity of such use when considered in light of the fragility of the beach area and adjacent resources and ongoing research. Within six months of CLRDP certification, and at five-year intervals post-certification after that, the University shall submit a Notice of Impending Development to the Coastal Commission with all necessary supporting information for a development project to implement such a beach access management plan for the next five years. Each such management plan shall at a minimum include:*

- *A regular schedule of guided, educational tours to the beach area that is coordinated with and similar to other Marine Science Campus education and docent programs and designed to introduce visitors to the special aspects of beach ecology without causing deterioration of that ecology or loss of opportunity for feeding or breeding of beach dependent species. These tours may be weekly weather permitting, but shall be offered a minimum of two times per month.*

- *Identification of all parameters for beach access, including a clear depiction of the area within which such access is allowed, and a clear description of all related implementing measures (e.g., trail alignments, trail design, barriers/fencing, signage, timing restrictions, supervision requirements, etc.). Access shall be by way of controlled access trails shown on Figure 5.6. Trails shall be maintained, marked, and signed for safety and interpretation of YLR ecology.*

- *A monitoring program that evaluates trends in beach area conditions, where at a minimum such program shall include: user data (including identification of all user types and specific data on size and composition of beach tour groups); a selected set of repeatable photo points to be taken seasonally to show all major areas of the beach; presence/absence of tidewater goby and evidence of breeding activity; species composition and coverage of beach dune vegetation from the lowest (nearest to the mean high tide line) occurring terrestrial plant to 10 meters inland into the strand vegetation; evidence of seed production by beach strand species in this zone; species composition and abundance of animal tracks (vertebrate and invertebrate) on the beach and adjacent beach dune area; and regular counts of feeding shorebirds on the beach.*

- *An assessment of beach area resources and the effect of beach area use and activities (including authorized and unauthorized uses, research use, YLR activities, etc.) on such resources in the time since the last five-year review and overall in the time since at least CLRDP certification;*

- *A description of existing public access opportunities on the Campus, and the way in which such opportunities relate to the amount and type of supervised access provided to the beach area.*

Coastal Bluffs and Blufftops

Policy 3.7 Protection of Coastal Bluff and Blufftop Areas

New development that creates or contributes to erosion or geologic instability or that would require the construction of protective devices that would substantially alter natural landforms along the bluffs shall be prohibited. Coastal bluff and blufftop vegetation shall be expanded and enhanced in accordance with the provisions of this CLRDP.

Implementation Measure 3.7.1 – Bluff Setbacks. *New development shall be sited and designed in such a manner as to avoid the need for shoreline armoring over the development's lifetime, and shall include enforceable provisions for addressing any future bluff retreat/erosion danger to the development without shoreline armoring (e.g., moving the development, removing the development, etc.). Development within 100 feet of the top edge of the coastal bluff shall be prohibited other than: existing buildings and streets; existing and proposed access and recreation amenities (see Section 5.6 and Figure 5.6); infrastructure improvements necessitating a near bluff edge location contemplated by the CLRDP (i.e., seawater system facilities); minor non-building research infrastructure (e.g., marine mammal pools); habitat restoration/enhancement; and directly related minor structures (such as irrigation, public safety fencing, etc.) that are consistent with the CLRDP.*

Implementation Measure 3.7.2 – Coastal Bluff and Blufftop Area Protection and Enhancement Measures. *The coastal bluff environment of the Marine Science Campus shall be protected and enhanced in accordance with the provisions of this CLRDP, including through University enhancement and management of the 100-foot bluff setback area identified in implementation measure 3.7.1 pursuant to the Resource Management Plan (Appendix A).*

Implementation Measure 3.7.3 – Protecting Existing Development from Coastal Erosion. *Shoreline armoring shall be allowed only as a last resort to protect structures existing at the time of CLRDP certification that are in danger from erosion, and only if: (a) less-environmentally damaging alternatives to armoring are not feasible (including relocation of endangered structures); and (b) the armoring has been sited, designed, and accompanied by measures to proportionately mitigate any unavoidable negative coastal resource impacts (on views, sand supply, public access, etc.).*

Agricultural Resources

Policy 3.8 Protection of Adjacent Agricultural Resources
The University shall minimize and, where possible, avoid conflicts with adjacent agricultural uses.

Implementation Measure 3.8.1 – Cooperation. *The University shall work cooperatively with the adjacent agricultural users to identify means of minimizing or avoiding any potential use conflicts (including the improvement of water quality in YLR), and to implement mutually acceptable conflict-avoidance strategies.*

Implementation Measure 3.8.2 – Agreement to Indemnify and Hold Harmless. *Prior to start of construction of any CLRDP facilities located north of the designated Lower Terrace Development Zone, the University shall offer to enter into an agreement substantially in conformance with the pre-CLRDP certification agricultural hold harmless and indemnity restrictions that apply to the Marine Science Campus, to indemnify and hold harmless the owners, lessees, and operators of the property from liability and costs resulting from the effect of normal and necessary farm operations upon the Marine Science Campus and its employees, students, agents, and invitees.*

Cultural Resources

Policy 3.9 Conservation of Cultural Resources
Reasonable mitigation measures shall be required, including those that may be identified through consultation with appropriate Native American representatives, where development would adversely impact archaeological and/or paleontological resources.

Implementation Measure 3.9.1 -- Construction Monitoring. *Should archaeological and/or paleontological resources be encountered during any construction on the Marine Science Campus, all activity that could damage or destroy these resources shall be temporarily suspended until qualified archaeologist/paleontologists and Native American representatives have examined the site and mitigation measures have been developed that address and proportionately offset the impacts of the project on archaeological and/or paleontological resources. Development shall incorporate measures to address issues and impacts identified through any archaeologist/paleontologist and/or Native American consultation.*

Hazardous Materials Management

Policy 3.10 Hazardous Materials Management
The Marine Science Campus environment shall be protected from contamination caused by the transportation, storage, and use of petroleum products and hazardous materials.

Implementation Measure 3.10.1 – Hazardous Materials Management. *The University, through the Office of Environmental Health and Safety, shall manage the use, and in the event of spillage the containment and cleanup of, hazardous materials and petroleum on the UCSC Marine Science Campus in compliance with federal and state regulations related to the storage, disposal, and transportation of hazardous substances.*

Implementation Measure 3.10.2 – Protective Measures for Laydown Yard. *The University shall install appropriate features around the perimeter of that part of any laydown yards that are dedicated to the maintenance and servicing of heavy equipment to ensure that hazardous materials do not enter the stormwater drainage system, watercourses, and/or groundwater. (See also Implementation Measure 7.1.12)*

Policy 3.14 Permanent Protection

The University hereby establishes as a guiding CLRDP principle its intent to protect, in perpetuity, Campus natural areas (i.e., all areas outside of development zones) from development other than the low-intensity uses and development allowed in the Resource Protection, Resource Protection Buffer, Open Space, or Wildlife Corridor land use designations. Designation of these natural areas to a Research and Education Mixed Use land use designation (or any subsequent and similar future CLRDP land use designation) shall be prohibited.

Implementation Measure 3.14.1 - Natural Areas Protection. *Within two years of CLRDP certification, all Campus natural areas (i.e. all areas outside of the four designated development zones) shall be incorporated into the University of California Natural Reserve System as an integral part of Younger Lagoon Reserve. Within two years and six months of CLRDP certification, the University shall submit to the Coastal Commission an amendment to the CLRDP to update it with respect to the revised configuration of Younger Lagoon Reserve and the natural areas. In addition, if any area within the four designated development zones as they are configured at the time of CLRDP certification is subsequently excluded from the designated development zones in the future (pursuant to Implementation Measures 3.3.1, 3.3.2, 3.4.4, and 3.4.5), then such area shall likewise be incorporated into Younger Lagoon Reserve within the same time frames and pursuant to the same parameters identified above with respect to the initial Reserve incorporation, but timed from the date that the required CLRDP amendment (required pursuant to Implementation Measures 3.3.2 and 3.4.5) is certified by the Coastal Commission.*

5.4. Scenic and Visual Qualities

This section sets forth plans, policies, and implementation measures related to maintaining scenic and visual qualities on the Marine Science Campus.

5.4.1. Scenic Corridor Protection

The Land Use Diagram (Figure 5.2) and Development Subareas (Figure 5.4) have been designed so that development and open space areas are located in such a manner as to protect significant public view corridors to the ocean, the agricultural coastline, and surrounding hillsides. Siting and design parameters, including regulation of building heights and maximum scale, are also required to protect on- and off-site public views of the site, including protecting the visual character of the site itself.

5.4.2. Scenic and Visual Resource Policies

Policy 4.1 Protection of Scenic Views

New development at the Marine Science Campus shall be sited and designed in a manner that protects public views, including the public view corridors depicted in Figure 3.16, and that limits development outside of the four Campus development zones to the maximum extent feasible.

Implementation Measure 4.1.1 – Location of Development. *The University shall cluster development on the Marine Science Campus as shown in Figures 5.2 and 5.4 so as to leave ample open space that protects identified public views, including identified public view corridors.*

Policy 4.2 Protection of Scenic Quality

New development at the Marine Science Campus shall be sited and designed to be compatible with existing Campus development and surrounding areas.

Implementation Measure 4.2.1 – Design Standards and Illustrative Campus Buildout Site Plan. *Decisions on siting, materials, height, clustering, and other aspects of project design shall be consistent with Chapter 5 and Chapter 6 and shall be guided by the Illustrative Campus Buildout Site Plan and the preliminary parameters for selected projects in Chapter 7. With respect to the development of the public overlooks, such overlooks shall be sited and designed consistent with the preliminary parameters identified in Chapter 7 unless alternative siting and design would result in both better public overlook value and better coastal resource protection.*

Implementation Measure 4.2.2 – Alteration of Natural Landforms. *Development shall be sited and designed to minimize the alteration of natural landforms.*

Implementation Measure 4.2.3 – Building and Other Structure Heights. *Buildings on the Marine Science Campus shall be no more than two stories tall and shall be no higher, as measured from natural grade to the top of the roof, than the maximum height limits specified in Figure 5.4, except that laboratory buildings located within the Middle Terrace development zone may be as high as 36 feet above natural grade subject to Implementation Measure 4.2.4, and the Phase II wing of the Ocean Health building may be up to 36 feet in height. Except for temporary structures, flat roofs shall be prohibited. Mechanical equipment and any associated screening structures that extend above the roof shall be limited to the maximum extent feasible in height and bulk. Screening structures (or portions thereof) shall only be used where such structures will provide better public viewshed protection than leaving such equipment unscreened. If it is not feasible to keep such equipment and/or structures below the maximum height (e.g., by reducing their number and/or size, by locating at a lower elevation than the roof peaks, by reducing building heights, etc.), then such equipment and structures shall not exceed maximum height limits by more than 5 feet, their aggregated length shall not exceed 25 percent of the length of the building's ridgeline, and their aggregated horizontal footprint shall not exceed 25 percent of the area of the aggregate horizontal footprint of the roof. Those portions of buildings that are located nearest the perimeter of the development zones shall be stepped down in height relative to the building to avoid uniform massing at the maximum height limits on the perimeter of development zones (see also Chapter 6). All other (i.e., non-building) structures shall be no higher as measured from natural grade to the topmost element than the maximum height limits specified in Figure 5.4.*

Implementation Measure 4.2.4 – Laboratory Buildings. *Laboratory buildings located within the area limited to 30-foot heights may be as high as 36 feet above natural grade if it is not feasible to meet the 30-foot height limit due to the vertical clearance necessary for specialized laboratory requirements (for mechanical systems, ductwork, etc.).*

Implementation Measure 4.2.5 – Maximum Building Gross Square Footage. *Individual new buildings shall not exceed 20,000 gross square feet in the Lower Terrace development zone, shall not exceed 37,500 gross square feet in the Upper Terrace development zone, and shall not exceed 40,000 gross square feet in the Middle Terrace development zone.*

Implementation Measure 4.2.6 – Maximum Additional Gross Square Footage in Lower Terrace. *New building development in the Lower Terrace development zone after the CLRDP is certified shall not exceed 40,000 gross square feet in total, exclusive of structures that are part of the seawater system.*

Implementation Measure 4.2.7 – Construction Materials. *Stained vertical wood siding, roughcast concrete, high-quality shingle roofing, and other materials with compatible appearances (e.g., stone, wood, cor-ten steel, etc.) shall be used for the exterior of all buildings and other structures to ensure design compatibility among all buildings on the Marine Science Campus.*

Fig 5.4 Development Subareas

Legend

#1 Development Subarea

Development Zone Boundary

[1] Subarea No.	[2] Subarea Size	Max. No. of Stories	Max. Height	[3] Max. Building Coverage
1	59,000	[4] 1	[4] 30	64%
2	44,900	1	[5] 18	30%
3	69,500	2	[6] 30	60%
4	105,500	2	[6] 30	60%
5	26,000	2	[6] 30	60%
6	73,000	1	[7] 24	40%
7	34,500	--	[8] 10	--
8	116,000	2	[4] 30	40%
9	27,500	2	24	40%
10	79,000	2	24	40%
11	62,000	2	[9] 24	40%
12	30,000	2	24	40%
13	23,500	1	15	40%
14	20,000	--	[10] 6	--
15	77,500	1	24	40%
16	20,500	--	[11] 12	125 sf
	868,400			

Notes:

[1] Building development outside of subareas is prohibited. Development outside of subareas shall be limited to at-grade development (e.g., streets, parking areas, etc.) unless it is an above-grade development explicitly identified as appropriate in this CLRDP (e.g., an earthen berm extension); where any associated above-grade elements (e.g., fencing, light standards, etc.) shall not exceed the scale, including the heights, established for such elements in the CLRDP.

[2] Subarea boundaries are approximate within 10 percent plus or minus; actual boundaries will be field verified when development is proposed.

[3] Parking shall be allowed anywhere in the development zone provided it is consistent with all provisions of the CLRDP. Coverage associated with parking and with outdoor reasearch area, laydown, and storage does not apply towards maximum building coverage calculations. Maximum building coverage must also be understood in relation to maximum square footages in Section 5.2 that also apply, and in relation to other CLRDP provisions that might further limit development.

[4] A small portion of the warehouse (i.e. up to 20% of footprint) may be two stories high and a max of 36 feet in height.

[5] Above-grade development shall be concentrated to the south as much as possible.

[6] Building height may extend to 36 feet for buildings with ventilated lab space per IM 4.2.4; mechanical equipment enclosures may extend up to five feet above the maximum height in certain circumstances per IM 4.2.3.

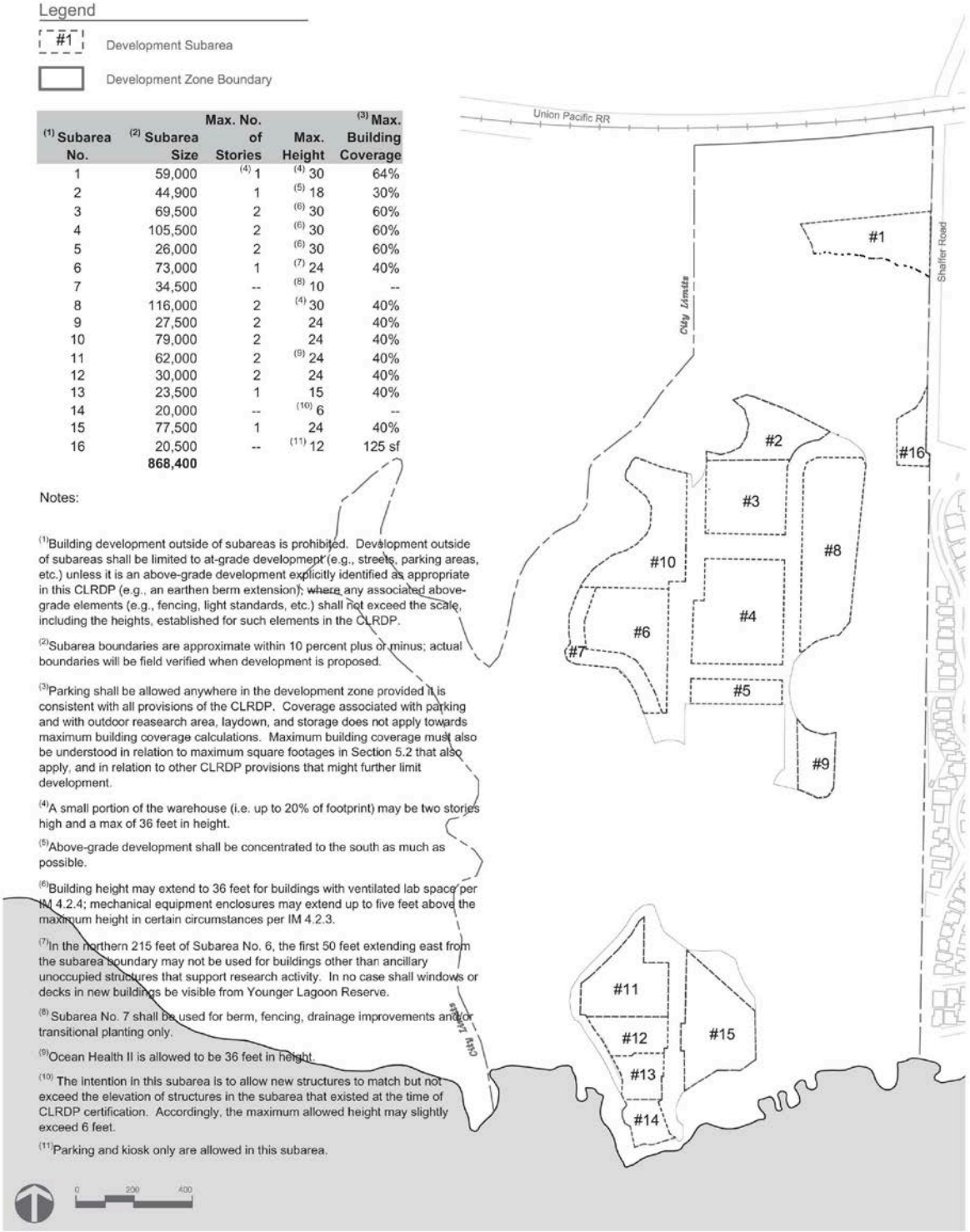
[7] In the northern 215 feet of Subarea No. 6, the first 50 feet extending east from the subarea boundary may not be used for buildings other than ancillary unoccupied structures that support research activity. In no case shall windows or decks in new buildings be visible from Younger Lagoon Reserve.

[8] Subarea No. 7 shall be used for berm, fencing, drainage improvements and/or transitional planting only.

[9] Ocean Health II is allowed to be 36 feet in height.

[10] The intention in this subarea is to allow new structures to match but not exceed the elevation of structures in the subarea that existed at the time of CLRDP certification. Accordingly, the maximum allowed height may slightly exceed 6 feet.

[11] Parking and kiosk only are allowed in this subarea.



Implementation Measure 4.2.8 – Building Setbacks. *New buildings on the Marine Science Campus shall be located no closer than 15 feet from campus streets and no closer than 20 feet from the pavement edge of Shaffer Road, as improved per Implementation Measure 5.1.3.*

Implementation Measure 4.2.9 – Building Length Limitations. *New building sections constructed on the Marine Science Campus shall not exceed 175 feet in continuous building length adjacent to a street or parking area.*

Implementation Measure 4.2.10 – Placement of Utility Lines Underground. *All utility lines on the Marine Science Campus shall be located underground.*

Implementation Measure 4.2.11 – Windbreak Vegetation. *The windbreak vegetation required by this CLRDP in connection with new development in the terrace portion of the site (see Section 6.5 and Figure 6.6) shall be sited to screen development from public view without interfering with that portion of the public view not encumbered by development (e.g., maintaining ocean/horizon views over and around buildings).*

Implementation Measure 4.2.12 – Development in Northernmost Portion of Middle Terrace. *Development in that portion of the Middle Terrace development zone that is located in development Subarea #2, as identified in Figure 5.4, shall be sited and designed to minimize impacts to public views as seen from the Group 2 public trail segments, as identified in Figure 9.1.*

Implementation Measure 4.2.13 – Development Along Edge of Lower Terrace. *Development in that portion of the Lower Terrace development zone that is located in Subareas #13 or #14, as identified in Figure 5.4, shall be limited to low intensity uses and facilities sited and designed to minimize impacts to public views as seen from trails and other access and recreation facilities and features shown on Figure 5.6 and/or described in Section 5.6. Development located in Subarea #14 shall be limited to the seawater system, circulation, and public access improvements and shall not exceed the elevation of the existing seawater facilities. Development in Subareas #13 and #14 shall not significantly block public views and shall, if located within the footprint of the berm (along the western edge of the zone), be no taller than the top of the berm at the time of CLRDP certification.*

Implementation Measure 4.2.14 – Building Development West of McAllister Way in Lower Terrace. *Building development in that portion of the Lower Terrace development zone that is located west of the location of McAllister Way at the time of CLRDP certification shall be limited to uses that integrally relate to existing development or research activities in the development zone, need a location adjacent to YLR (original YLR), or otherwise require a more isolated location.*

Implementation Measure 4.2.15 – Building Development West of McAllister Way in Middle Terrace. *Development in Subarea #6 shall be limited to uses that would benefit from a more isolated location, and development in Subarea #7 shall be limited to extension of the pre-CLRDP certification earthen berm, overlook improvements, natural drainage system components, fencing, and/or landscaping.*

Implementation Measure 4.2.16 – Building Development Outside of Subareas Prohibited. *Building development located outside of the subareas shown in Figure 5.4 shall be prohibited. Development located outside of subareas and inside of development zones shall be limited to at-grade development (e.g., streets, parking areas, etc.), unless it is an above-grade development explicitly identified as appropriate in this CLRDP (e.g. an earthen berm extension), where any associated above-grade development and structures (e.g., fencing, light standards, etc.), shall not exceed the scale, including the height, established for such development and structures in the CLRDP.*

Policy 4.3 Visual Intrusion and Lighting

Development shall be sited and designed so that the impacts of activity and direct light on wildlife and public views outside of development zones is limited to the maximum extent feasible.

Implementation Measure 4.3.1 – Visual Intrusion into YLR (Original YLR). *Development adjacent to YLR (original YLR) shall be sited and designed so that activity and direct light will not be visible from within YLR (original YLR).*

Implementation Measure 4.3.2 – Visual Intrusion into YLR (Terrace Lands). *Development shall be sited and designed so that activity and direct light that may be visible from outside of development zones is limited to the maximum extent feasible, and so that any activity and/or direct light that is unavoidably visible is minimized in its intensity. In determining the measures needed to limit visual intrusion to the maximum extent feasible, the University shall consult with the manager of Younger Lagoon Reserve and the California Department of Fish and Game.*

Implementation Measure 4.3.3 – All Lighting. *Lighting on the Marine Science Campus shall be provided at the lowest footcandle levels necessary to achieve safety and efficient navigation.*

Implementation Measure 4.3.4 – Building Lighting. E*xterior lighting shall be located only at building entries and usable interior courtyards. No other exterior lighting of buildings, such as façade or accent lighting, shall be allowed, except where necessary for safety. Interior lighting shall be located so as to minimize the potential for light and glare to be visible from within Resource Protection, Resource Protection Buffer, and Wildlife Corridor areas and be consistent with the Uniform Building Code.*

Implementation Measure 4.3.5 – Street and Trail Lighting. *Streets on the Marine Science Campus may only be lighted within the development zones of the campus. Trails shall be lighted only to the extent needed for safety. Only low-intensity lights attached to low-height, wood bollards (i.e., up to 36" maximum height) shall be used for trail lighting, and all trail lighting shall be downward directed.*

Implementation Measure 4.3.6 – Parking Lot and Maintenance Yard Lighting. *Lighting in parking lots and maintenance yards shall be the lowest lighting intensity levels necessary to provide safety and security. All parking lot and maintenance yard lighting shall be full cut-off type lighting and shall be downward directed. Pole mounted lighting shall be limited to the maximum extent feasible (in number, height, and bulk) and shall not exceed 12 feet in height.*

Implementation Measure 4.3.7 – Sign Lighting. *Sign lighting on campus shall be limited to signs identifying important destinations, restricted areas, and/or dangerous terrain. All sign lighting shall be the minimum necessary to achieve design objectives. No backlighting of signs or use of neon shall be allowed.*

Implementation Measure 4.3.8 – Lighting Plan Required. *New development that includes lighting shall be authorized by the University only if it includes a lighting plan that details the manner in which the development individually and cumulatively is consistent with and implements the lighting parameters of this CLRDP, including Policy 4.3 and its implementing measures, and including long-term lighting system monitoring and maintenance.*

- Maintenance of pre-development drainage peak flows in the post-development drainage system.

- Treatment of stormwater and other runoff to meet defined water quality success criteria (including the requirements set forth in "California's Management Measures for Polluted Runoff," Section 6217 (g) of the Coastal Zone Amendment and Reauthorization Act, and the Central Coast Region Basin Plan).

- Maintenance of BMPs and monitoring of filtered and treated stormwater and other runoff to ensure that the drainage system is able to provide effective control of water quantity and quality consistent with plan objectives.

- Maintenance of groundwater recharge at pre-CLRDP levels to the maximum extent practicable.

- Correction of erosion and sedimentation problems in the original Younger Lagoon Reserve caused by drainage from the terrace portion of the site.

Policies and implementation measures upon which the Drainage Concept Plan is based are provided below. In carrying out the Drainage Concept Plan, decisions are to be guided by, and achieve consistency with these policies and implementation measures, and the Drainage Concept Plan.

5.7.2. Drainage Management Policies

Policy 7.1 Productivity and Quality of Coastal Waters
The Marine Science Campus shall be developed and used in a manner that shall sustain and, where feasible, enhance and restore, the biological productivity and quality of coastal waters on and adjacent to the Campus through controlling, filtering, and treating runoff and other non-point sources of pollution, preventing depletion of groundwater supplies and substantial interference with surface water flow, encouraging wastewater reclamation, and maintaining natural vegetation buffer areas that protect riparian habitats.

Implementation Measure 7.1.1 – Management of Stormwater and Other Runoff. *The stormwater and other runoff drainage system on the Marine Science Campus shall be sited and designed using a combination of good site planning, source control, and filtration/treatment best management practices (including engineered storm water treatment systems) to achieve water quality objectives, as detailed in the Drainage Concept Plan (Appendix B). Low Impact Development (LID) BMP strategies and techniques shall be used in all system design (e.g., maximizing infiltration in BMP design, reducing the hydraulic connectivity of impervious surfaces, etc.). The drainage system shall be designed to filter and treat (i.e., to remove typical and expected urban runoff pollutants) all site runoff prior to its use for on-site habitat enhancement, infiltration, and/or landscape irrigation, and/or prior to its discharge otherwise. The drainage system shall be sized to accommodate the volume of runoff produced from all applied water (such as for irrigation) and from each and every storm and/or precipitation event up to and including the 85th percentile 24-hour runoff event for volume-based BMPs. Drainage shall be directed to vegetated stormwater basins through vegetated filter strips and swales to further improve water quality prior to its discharge to receiving areas. The drainage system for equipment/vehicle use areas (i.e., parking lots, maintenance and laydown areas, etc.) shall also include engineered treatment systems and/or equivalent systems designed to filter and treat contaminants expected to be present in the runoff relating to the specific type of equipment/vehicle use.*

Implementation Measure 7.1.2 –Water Quality Standards. *Stormwater and other site runoff shall be filtered and treated to the extent necessary to meet the minimum water quality requirements set forth in the Drainage Concept Plan.*

Implementation Measure 7.1.3 – Pre- and Post-Development Flows. *The University shall develop and manage a drainage system on the Marine Science Campus that maintains pre-development drainage patterns and peak flow rates for up to the 25-year return storm in the post-development drainage system to the maximum extent feasible, provided that accommodating such flows does not require drainage system sizing that exceeds 85th percentile storm event requirements (see Appendix B). The one exception to this flow pattern standard is drainage from Basin 10, part of which shall flow to Basin 9 to avoid construction of a new outfall over the coastal bluff (see Drainage Concept Plan in Appendix B).*

Implementation Measure 7.1.4 – Pre-Development Drainage Patterns Defined. *"Predevelopment drainage patterns" means the pattern of stormwater and other runoff flows prior to certification of this CLRDP, as identified in Drainage Concept Plan.*

Implementation Measure 7.1.5 – Pre-Development Drainage Peak Flow Rates Defined. *"Pre-development drainage peak flow rates" means the estimated rates at which stormwater and other runoff flowed on the site assuming the site was covered in grassland vegetation, as estimated in the Drainage Concept Plan, with the exception that for drainage Basins 5 and 9 only, it means the estimated rates at which stormwater flowed on the site prior to certification of this CLRDP, as estimated in the Drainage Concept Plan.*

Implementation Measure 7.1.6 – Groundwater Recharge. *The University shall develop and manage a drainage system on the Marine Science Campus that maintains groundwater recharge at pre-CLRDP levels to the maximum extent practicable through the use of infiltration (e.g., in the vegetated stormwater basins and swales).*

Implementation Measure 7.1.7 – Seawater System. *Seawater pumped onto the site shall be contained and discharged so as not to impact freshwater resources and upland habitats on the Marine Science Campus.*

Implementation Measure 7.1.8 – Irrigation and Use of Chemicals for Landscaping. *Any water used for landscape irrigation on the Marine Science Campus shall not be applied in a manner that would cause significant erosion. Any use of chemicals for fertilizer and/or weed and pest control shall be limited to the maximum extent feasible, including as required by the Drainage Concept Plan, and any chemicals unavoidably used shall not enter habitat areas or the ocean in concentrations sufficient to harm wildlife and/or to degrade habitat.*

Implementation Measure 7.1.9 – Wastewater. *All wastewater generated on the Marine Science Campus shall be discharged to the City of Santa Cruz's sanitary sewer system.*

Implementation Measure 7.1.10 – Elements of the Stormwater Treatment Train. *The University has identified six primary treatment BMPs in the Drainage Concept Plan (Appendix B) to be used as appropriate in every project-specific drainage plan developed for the Marine Science Campus. Wherever possible, these BMPs shall be used in series as a treatment train, but any combination may be used, depending on what is appropriate in any particular drainage basin, provided a subset of these six BMPs and/or a substitution (of an equally effective BMP) for one or more of them would provide equal or better water quality and other resource protection. In every case, engineered stormwater treatment systems shall be installed as part of the treatment train where areas subject to vehicular-type pollutant generation (e.g., parking lots, maintenance areas, laydown areas, etc.) are tributary to the treatment train.*

5.8.3. Utilities Policies

Policy 8.1 Provision of Public Works Facilities
New or expanded public works facilities shall be designed and limited to accommodate only needs generated by development or uses consistent with this CLRDP. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

Implementation Measure 8.1.1 – Sizing of Utilities. *Utilities and services to and on the Marine Science Campus, including water, sanitary sewer service, stormwater systems, and electrical and communication lines, shall be sized consistent with and limited to accommodating only the building program set forth in this CLRDP.*

Implementation Measure 8.1.2 – Seawater System. *The University may maintain and may expand its seawater system to provide fresh seawater consistent with this CLRDP. The capacity of the seawater system shall be consistent with the building program set forth in Figure 5.1 of this CLRDP.*

Policy 8.2 Protection of Biological Productivity and Quality of Coastal Waters When Providing Public Works Facilities
The biological productivity and quality of coastal waters, streams, and wetlands appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained when providing public works facilities.

Implementation Measure 8.2.1 – Installation of New Utility Lines and Related Facilities. *New incidental public underground utility lines and related incidental public facilities shall be allowed below wetlands and riparian corridors only when there is no feasible less environmentally damaging alternative and where feasible mitigation measures have been provided to both minimize adverse environmental effects and to commensurately offset any unavoidable effects.*

Implementation Measure 8.2.2 – Seawater System. *The seawater system shall be operated in a manner that will protect against spillage and that will sustain the biological productivity and quality of coastal waters, streams, and wetlands.*

Implementation Measure 8.2.3 – Evaluation of Western Utility Corridor. *Development that requires or includes telephone, data, and/or electricity utility upgrades that require significant ground disturbance within the utility corridor along the western boundary of the site shall include an analysis detailing the measures necessary to re-route all utilities out of this utility corridor and/or adding the needed additional capacity through an alternative route. If found to be feasible and less environmentally damaging, the additional capacity shall be accommodated through an alternative route and, if feasible, the existing lines shall be rerouted. Any necessary utility abandonment measures (such as pulling out utility lines and restoring affected habitat area) shall be included within the University's development authorization.*

Policy 8.3 Water Conservation Required
New development shall include water conservation measures that reduce water use. Such conservation measures shall be applied to both interior water use (e.g., including but not limited to, ultra low-flow plumbing fixtures, flow restrictors, hot water re-circulation pumps, water pipe insulation, Energy-Star rated appliances, etc.) and exterior water use (e.g., including but not be limited to, drought tolerant landscape species, drip irrigation, cistern collection for irrigation, rain sensitive irrigation systems, overflow prevention mechanisms, automatic shutoff nozzles, etc.). The City of Santa Cruz shall be consulted regarding necessary water conservation measures.