

**DRAFT INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION**

**UNIVERSITY OF CALIFORNIA SANTA CRUZ
MARINE SCIENCE CAMPUS
PUBLIC COASTAL ACCESS OVERLOOKS AND OVERLOOK IMPROVEMENTS**

OCTOBER 2010

**University of California Santa Cruz
Physical Planning and Construction
1156 High Street
Santa Cruz, CA 95064**

**ENVIRONMENTAL CHECKLIST FORM
INITIAL STUDY**

**UNIVERSITY OF CALIFORNIA
SANTA CRUZ**

**OCTOBER 2010
PROJECT NUMBER 977330**

**MARINE SCIENCE CAMPUS
PUBLIC COASTAL ACCESS OVERLOOKS AND OVERLOOK IMPROVEMENTS**

I. PROJECT INFORMATION

1. Project title:
Public Coastal Access Overlooks and Overlook Improvements (“Overlooks Project”)
2. Lead agency name and address:
The Regents of the University of California
1111 Franklin Street
Oakland, CA 94607
3. Contact person and phone number:
Sally Morgan, 831-459-1254
University of California Santa Cruz
1156 High Street
Santa Cruz, CA 95064
4. Project location:
UC Santa Cruz Marine Science Campus, Santa Cruz, California
5. Project sponsor’s name and address:
(See #3)
6. Custodian of the administrative record for this project (if different from response to item 3 above.):
UC Santa Cruz Physical Planning and Construction
7. Identification of previous EIRs relied upon for tiering purposes (including all applicable LRDP and project EIRs) and address where a copy is available for inspection.)
 - 1) UCSC Marine Science Campus CLRDP EIR, September 2004, SCH #2001112014.
 - 2) Addendum # 1 to the CLRDP EIR, November 2006. (Minor Revisions to the CLRDP)
 - 3) Addendum #2 to the CLRDP EIR, July 2010 (Specific Resource Plan Phase 1A, implementing CLRDP Resource Management Plan)
 - 4) California Coastal Commission UCSC Marine Science Campus Coastal Long Range Development Plan Staff Reports and Findings (CEQA-certified regulatory program), November 2007 and March 2008.These documents are available for review at the office of UC Santa Cruz Physical Planning and Construction, Barn G, UC Santa Cruz main campus, 1156 High Street, Santa Cruz, CA 95064

II. INITIAL STUDY

Pursuant to Section 15063 of the California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations, Sections 15000 et seq.), an Initial Study is a preliminary environmental analysis that is used by the lead agency as a basis for determining whether an EIR, a Mitigated Negative Declaration, or a Negative Declaration is required for a project. The CEQA Guidelines require that an Initial Study contain a project description, description of environmental setting, identification of environmental effects by checklist or other similar form, explanation of environmental effects, discussion of mitigation for significant environmental effects, evaluation of the project's consistency with existing, applicable land use controls, and the name of persons who prepared the study.

Tiering Process

The CEQA concept of "tiering" refers to the evaluation of general environmental matters in a broad program-level EIR, with subsequent focused environmental documents for individual projects that implement the program. This environmental document incorporates by reference the discussions in the CLRDP EIR (the Program EIR) and concentrates on project-specific issues. CEQA and the CEQA Guidelines encourage the use of tiered environmental documents to reduce delays and excessive paperwork in the environmental review process. This is accomplished in tiered documents by eliminating repetitive analyses of issues that were adequately addressed in the Program EIR and by incorporating those analyses by reference.

Section 15168(d) of the State CEQA Guidelines provides for simplifying the preparation of environmental documents on individual parts of the program by incorporating by reference analyses and discussions that apply to the program as a whole. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance (CEQA Guidelines Section 15152[d]).

This Initial Study is tiered from the UCSC 2004 CLRDP EIR, a 2006 Addendum #1 to that EIR, a 2010 Addendum #2 to that EIR and the Coastal Commission's November 2007 and March 2008 Staff Reports and Findings (collectively referred to in this Initial Study as the CLRDP EIR) in accordance with Sections 15152 and 15168 of the CEQA Guidelines and Public Resources Code Section 21094.

The CLRDP EIR is a Program EIR that was prepared pursuant to Section 15168 of the CEQA Guidelines. The CLRDP is a general land use plan that guides physical development on the site to accommodate expanded and new program initiatives. The CLRDP EIR analyzes full implementation of uses and physical development proposed under the CLRDP, and it identifies measures to mitigate the significant adverse program-level and cumulative impacts associated with the anticipated development. The proposed project is an element of the growth that was anticipated in the CLRDP and evaluated in the 2004 CLRDP EIR.

UCSC also prepared a 2006 Addendum #1 to the 2004 CLRDP EIR to document and analyze the modification to the CLRDP recommended by Commission staff. Following consideration of the 2004 CLRDP EIR and Addendum #1 the University amended the CLRDP to incorporate the modifications recommended by Commission staff in November 2006. Thereafter, the Coastal Commission suggested additional CLRDP modifications, which were analyzed in the Commission's 2007 and 2008 staff reports. In April 2008, the Commission determined that the CLRDP, as amended to include modification identified in the 2007 and 2008 staff reports, is

consistent with the policies of the California Coastal Act and approved the CLRDP, conditional upon UCSC's acceptance of the revised conditions. The campus revised the CLRDP in accordance with the Commission's approval and on December 29, 2008, the Executive Vice President of the University, through delegated authority, accepted the Commission's modifications to the CLRDP. The California Coastal Commission then certified the December 2008 CLRDP in January 2009. The 2004 CLRDP EIR, Addendum #1, and the November 2007 and March 2008 Coastal Commission staff reports and findings made as part of the Commission's CEQA certified regulatory program are collectively referred to herein as the "CLRDP EIR".

By tiering from the CLRDP EIR, this Tiered Initial Study will rely on the CLRDP EIR for the following:

- a discussion of general background and setting information for environmental topic areas;
- overall growth-related issues;
- issues that were evaluated in sufficient detail in the CLRDP EIR for which there is no significant new information or change in circumstances that would require further analysis; and
- assessment of cumulative impacts.

This Initial Study will evaluate the potential environmental impacts of the proposed project with respect to the CLRDP EIR to determine what level of additional environmental review, if any, is appropriate. As shown in the Determination in Section VIII of this document, and based on the analysis contained in this Initial Study, it has been determined that the proposed project would not have potentially significant effects on the environment that cannot be reduced through project-level mitigation to a less than significant level, or that were not previously addressed or adequately addressed in the CLRDP EIR. Therefore, a Mitigated Negative Declaration will be prepared.

The CLRDP sets forth policies that will govern development at the Marine Science Campus, which are designed to protect the coastal environment on and surrounding the campus. Each policy is applied to the CLRDP program and specific developments proposed for the campus through a series of CLRDP implementation measures ("IMs"). Each proposed project must incorporate relevant IMs to ensure consistency with the CLRDP as determined during Coastal Commission review of impending developments. The CLRDP EIR prepared by the campus identifies measures to mitigate the potential environmental effects of proposed development. Both program level and Project-Level mitigation measures were identified. Program level mitigation measures, set forth requirements that apply to on-going operations and to the program of development overall, such as implementation of an ongoing transportation demand management program at the campus, and development and implementation of specific resource plans for natural resources management at the campus. The CLRDP EIR also identified measures applicable to specific developments, such as implementation of dust control measures during construction. The project analyzed in this Initial Study incorporates applicable CLRDP implementation measures and mitigation measures. Therefore, CLRDP implementation measures that are already being carried out as part of the CLRDP, and CLRDP EIR program-level mitigation measures applicable to the project, will not be readopted, but rather are incorporated as part of the project. CLRDP project-specific mitigation measures applicable to the project will be readopted. Nothing in this Initial Study in any way alters the obligations of the campus to implement the CLRDP implementation measures or the program-level CLRDP EIR mitigation measures.

III. PROJECT DESCRIPTION

Project Summary

The proposed Public Coastal Access Overlook and Overlook Improvements Project (“Overlooks Project”) consists of construction of three new public coastal access overlooks, and improvements to two existing overlooks at the University of California Santa Cruz (UCSC) Marine Science Campus. The campus is located on the shore of Monterey Bay, at the southwestern corner of the city of Santa Cruz. On the western edge of the campus is Younger Lagoon, part of a natural reserve in the University of California Natural Reserve System. The project would provide publicly-accessible overlooks from which to view the ocean coast, Younger Lagoon, a seasonal wetland, and campus marine mammal pools for which public access is otherwise limited due to safety hazards or for the protection of marine wildlife and habitats. The facilities would include interpretive signs and public amenities such as bicycle parking and benches, to enhance public access to and enjoyment of these restricted areas.

Project Location

The location of the proposed Overlooks Project is UCSC’s Marine Science Campus, which includes Younger Lagoon Reserve. All areas of the Marine Science Campus that lie outside of the CLRDP-designated development zones were added to the Younger Lagoon Reserve as a condition of Coastal Commission approval of the CLRDP. Several of the overlooks, which are sited at the margins of development zones, therefore are within what is now the Younger Lagoon Reserve: Overlooks C and A are within development zones at the margin of the YLR, while the sites of overlooks D, E and F are within areas incorporated into the YLR as a condition of approval of the CLRDP. The overlooks would be constructed at four discrete sites that overlook the Pacific Coast and Younger Lagoon, and one site that overlooks a wetland on the campus, as shown on Figure 1, below. Figure 1 also shows Overlook B, and existing overlook for which improvements were already completed under a separate approval. Figure 2, which follows Figure 1, illustrates the locations of existing and proposed overlooks on an aerial photo of the site, and shows the potential extent of ground disturbance associated with construction and improvements at sites A, D, E and F. Note that Overlook C improvements would not involve any new ground disturbance.



Figure 1. Marine Science Campus with Overlook Locations



Figure 2. Footprints of Disturbance for Proposed Overlook Construction

Detailed Project Description

The elements of the Overlooks Project are described and illustrated in detail below and locations are shown on Figures 1 and 2, above. Details on overlook design, construction procedures and equipment, and proposed materials, and provided below. The proposed Overlooks Project consists of construction of three new public access overlooks, designated in UCSC's Coastal Long Range Development Plan (CLRDP) as Overlooks A, E and F, and improvements to two existing overlooks, designated as Overlooks C and D. Site C is within a developed area of the Marine Science Campus and site A is within the margin of a development zone. The other sites are within the boundaries of the Younger Lagoon Reserve, as modified as a condition of Coastal Commission approval of the CLRDP. The CLRDP also describes improvements to existing Overlook B, which were carried out in 2009 as part of another project and are not part of the current project.

All overlooks would include signage and interpretive panels to identify the major natural features that can be observed. Amenities such as benches, trash cans and bicycle parking would be located at or near each overlook. All new overlooks and overlook improvements have been sited and designed to integrate into the natural site aesthetic. Areas disturbed during construction would be replanted in native plants from locally-collected seeds and stock, as required by the CLRDP. The Overlook C path was upgraded for full ADA accessibility under a separate project in 2001. Overlook A, D, and E pads and paths would be fully handicapped-accessible, in accordance with ADA regulations. Overlook F and its access path will also be accessible, although the main bluff top path that leads to this site is not currently accessible. Improvements to this path are included in another larger project currently under analysis, with construction anticipated in 2012-13. All new access routes and overlook platforms will be surfaced with materials (such as FIBAR¹, gravel pavers² or grass pavers³) that are both fully ADA accessible and are either fully-permeable and/or will store storm water for infiltration, such that there is no increase in surface runoff.

The CLRDP, Chapter 7 and Chapter 9, includes schematic plans and describe siting and design parameters for the overlooks. Proposed refinements to the design and construction of the new overlooks and completed planning for improvements to the existing overlooks, which are consistent with the preliminary descriptions and aesthetic and design criteria presented in the CLRDP, are described and analyzed in this Initial Study.

Overlook A Design and Siting

Overlook A (Figure 3, below) would be developed adjacent to the Seymour Marine Discovery Center to provide viewing of seasonal wetland, W5, to the northeast. This overlook would be sited in an area presently equipped with picnic tables for public use, just north of the parking lot of the Seymour Marine Discovery Center at the edge of the Wetland W5 buffer. The Seymour Discovery parking lot is surrounded by a low earthen berm, which screens the lot from the adjacent natural areas. The proposed overlook site is on the opposite side of the berm from the parking lot. The berm is vegetated in a mix of non-native grasses and herbs and native shrubs, and several Monterey cypress trees stand between the overlook site and the parking lot⁴. The overlook would

¹ For example, see: <http://www.getplaygrounds.com/Manufacturers/fibar.htm>

² For example, see: <http://www.terrafirmenterprises.com/?gclid=CKfU2Z26jKMCFQ4MbAod83tfZg>

³ For example, see: <http://www.invisiblestructures.com/gravelpave2.html>

⁴ The cypresses were planted on the site in the past, but are highly invasive, and are among the species designated as top priority for near-term removal under the recently-approved Specific Resource Plan (SRP), Phase 1, which implements the previously-approved CLRDP Resource Management Plan. If these trees are removed in the future as part of SRP implementation, a new screen of native vegetation would be planted.

be accessed from the southeast end of the Seymour Discovery Center parking lot, from a point near the existing ADA parking spaces, via an accessible path angled along the berm. It also would be accessible from a future public access trail, currently is an informal dirt path, that would circle the north and east sides of the parking lot. The overlook would serve as an observation point for pedestrians using the public pathway, and for school groups and other campus visitors.

Overlook design includes two 8-ft X 4-ft earthen pads, elevated approximately 14 inches above existing grade and surrounded by a low railing on three sides. Picnic tables would be provided adjacent to the overlooks. A 6-ft high vegetation screen of local native shrubs and grasses would be planted along the north/ northwest sides of the overlook to define the overlook area, discourage foot traffic off of the pad area into the wetland buffer, and provide wind screening and visual screening of human activity at the overlook. The access route from the Discovery Center lot to the overlook would have a grade of less than 5%, for ADA accessibility, and would have a permeable but ADA-accessible surface. An interpretive panel at each of the two pads would provide information about the natural aspects of the seasonal pond to the north and northeast along with other visible features of the landscape, including coastal terrace and ocean views to the southeast. Figure 3, below (based on CLRDP Figure 7.9) presents a schematic diagram of the proposed overlook.

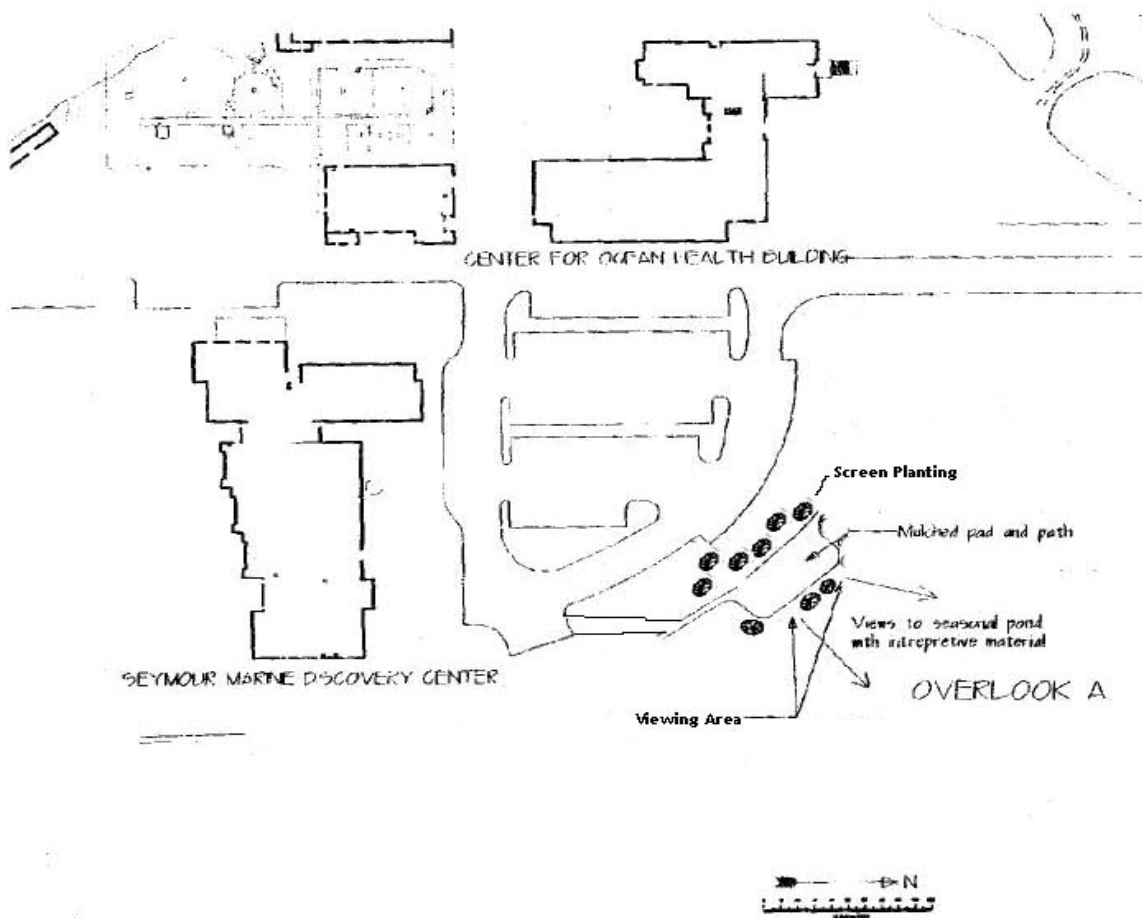


Figure 3. Schematic Design of Overlook “A”

Overlook C Design and Siting

Overlook C is an existing overlook located atop an existing earthen berm immediately west of the MSC Long Marine Lab's (LML's) marine mammal pool (CLRDP Figure 5.6). The California Conservation Corps originally built this overlook as a cooperative project between LML and the adjacent Younger Lagoon Reserve (YLR). Overlook C provides views both of LML marine mammal pools and into YLR and affords opportunities for docent interpretation of the marine mammal research on the LML side, and of Monterey Bay, the "front" and "back" Younger Lagoon beaches, sea cliff and lower lagoon on the YLR side. The existing overlook includes interpretive panels on LML dolphin research. Improvements to this overlook would be limited to adding new interpretive panels on the west side of the overlook, to provide information on the YLR and Monterey Bay National Marine Sanctuary, and would not entail any new footprint of disturbance. Access to this overlook is by docent-guided tour only, through the center of the LML facilities. Public access to Overlook C has been and will continue to be controlled, consistent with CLRDP policy, to protect marine mammals, marine mammal research efforts, and YLR wildlife. Overlook C is fully ADA accessible.

Overlook D Design and Siting

Overlook D, an existing rudimentary overlook located north of the Center for Ocean Health building in a natural area on the Younger Lagoon side of the MSC's earthen berm, provides a view of the lower part of YLR. The overlook is within the fenced YLR and is accessible only through guided tours or through special arrangement. The overlook currently is accessed from McAllister Way through a locked gate at a gap in the berm via a casual, lightly maintained, sandy pedestrian trail. The overlook itself is a sandy, nearly level, unimproved area about 250 sq. ft. in area, equipped with a bench and surrounded by low-growing natural vegetation.

Proposed improvements to the overlook include construction of an ADA-accessible path from McAllister Way via a fenced alcove at the current entry location that would provide a gathering area adjacent to the roadway. In order to eliminate existing steps and create a trail with accessible grade, the length of the trail would be increased with a switchback down the slope to the overlook. The trail would be surfaced with a pervious, but ADA-accessible material (as described above). The overlook pad itself would be cut slightly into the slope to minimize its visibility. To facilitate observation of the lagoon wildlife from the overlook, the project would include construction of a partially-enclosed observation blind at the overlook pad. The observation blind would be of galvanized steel frame construction with shed roof in non-reflective, earth-tone colors, and would be set back against the slope, to minimize the blind's visibility. The blind would be about 20 ft long by 16 ft wide by 9 ft tall. The area immediate north of the structure would provide views of the marine terraces, about which interpretive materials would be provided. Interpretive signage would be installed inside the blind or on the overlook pad. The path and blind would be screened by native vegetation plantings propagated from seeds collected within the reserve. The screen would extend to about the height of a 36-inch to 42-inch-high railing around the blind, to minimize the visibility of human activity from within the reserve, and also to discourage unauthorized human entry into YLR. Disturbed area also would be planted with native vegetation at the completion of construction, with plants propagated from seeds collected within the YLR. Neither the trail nor the overlook would include any night lighting, and both would be available for day time use only, consistent with the habitat protection requirements of the CLRDP.

Construction of the trail and overlook pad would require mechanical cut and fill to meet ADA slope standards and runoff/erosion control, and would include two short sections of low retaining wall where the path passes through the gap in the earthen berm and another at the back of the overlook pad, against the slope. The pad site and trail route would be graded with a bobcat (small grader) and the retaining walls and blind structure would be constructed and installed by hand without the use of heavy equipment. Concrete for the grade beam, overlook retaining wall and posts would be pumped by hose from the access path entry gate. Cut and fill would be balanced, with a goal of avoiding fill import or export.

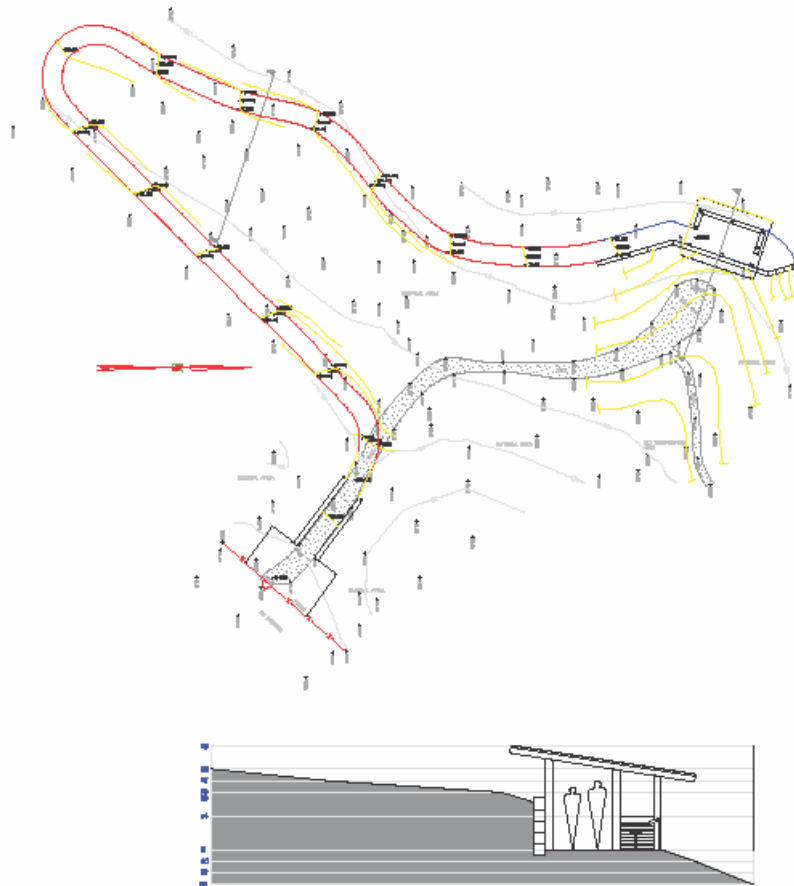


Figure 4. Overlook “D” Refined Plan

CLRDP Figure 7.11 shows preliminary design of Overlook D improvements as conceived in the CLRDP. The design of Overlook D and its access route have been refined through subsequent planning and engineering study. Figure 4, above, shows the design as refined to provide ADA accessibility and improved topographic screening of the observation shelter.

Trail surfacing material for the Overlook D access trail will be required to be both ADA-accessible and to provide storm water infiltration, as described above. The proposed bird blind at Overlook D does have the potential to concentrate runoff in a small area, since the approximately 320-sf area roof of the blind will be impervious. The roof will be slanted toward the down slope edge of the

blind, such that storm water will run off its long west-facing edge. The project would include construction of a vegetated infiltration trench parallel with the west (down slope) edge of the blind, along the drip line of the roof, and cobbles will be placed on the slope above the infiltration trench for reinforcement. Rather than capturing rain water in gutters and down spouts, which would concentrate the flow in small areas, rain would be allowed to flow evenly off the slope of the roof and drain into the infiltration trench, where it will be infiltrated on site.

Overlook E Design and Siting

Overlook E would be a new overlook to be located adjacent to the west side of McAllister Way, opposite the NOAA Fisheries building, above the middle section of Younger Lagoon Reserve, on a sandy vegetated area, at the YLR fence line. This overlook would be directly accessible as part of the envisioned future public access trail system (CLRDP Figure 9.1) and would provide pedestrians along this public access route with a view into the lagoon and invite closer observation. An interpretive panel would introduce visitors to the significance of protected areas, such as Younger Lagoon, to coastal ecology. A minor alteration to the existing fence would provide a viewing opening from which views of the lagoon are possible to the south toward the beach, west toward the main section of the lagoon and agricultural fields beyond, and to the northwest up the lagoon's upper arms (see Figure 5, below).

The existing fence along McAllister Road would be integrated into Overlook E, and no new fencing would be constructed with Overlook E. A new fence would be constructed in the future to tie into Overlook E and be constructed in a manner as to maintain the existing screen between Younger Lagoon and human activity and development along the road. A barrier fence and a native plant screen would be installed in tiers in the YLR side of the overlook as part of the Overlooks Project. This would consist of fencing four feet in height, screened by plantings of native shrubs along the west side of the fence to minimize human presence from the perspective of the reserve, with a break in the screening at the overlook, to allow views into the lagoon area. A screen of native shrubs between the overlook opening and the west side of McAllister Way would also provide screening of human activity along McAllister Way from inside the reserve. Vegetation would be trimmed as needed, to provide views while still minimizing visibility of human observers and passers by from the wildlife/lagoon perspective. Dense native plantings that would include plants such as native blackberry, native rose, and possibly poison oak would be placed below and around the overlook, both to diminish human visibility at the overlook from inside the reserve, and also further to discourage unauthorized entry into the reserve from this location. All plants used for restoration and landscaping would be propagated from locally-collected native seeds.

Overlook construction would consist of minor grading to level a pad for siting of a bench, fence enclosure and interpretive signage. The access route and overlook pad would be surfaced with permeable, ADA-accessible material, as described above. The project also would include plantings along the NOAA building to maximize screening of the building from the reserve. However, cypress trees would not be used, as previously proposed in the CLRDP, as these are highly invasive and are considered Priority 1 species for removal under the recently-approved CLRDP Specific Resource Plan, Phase 1.

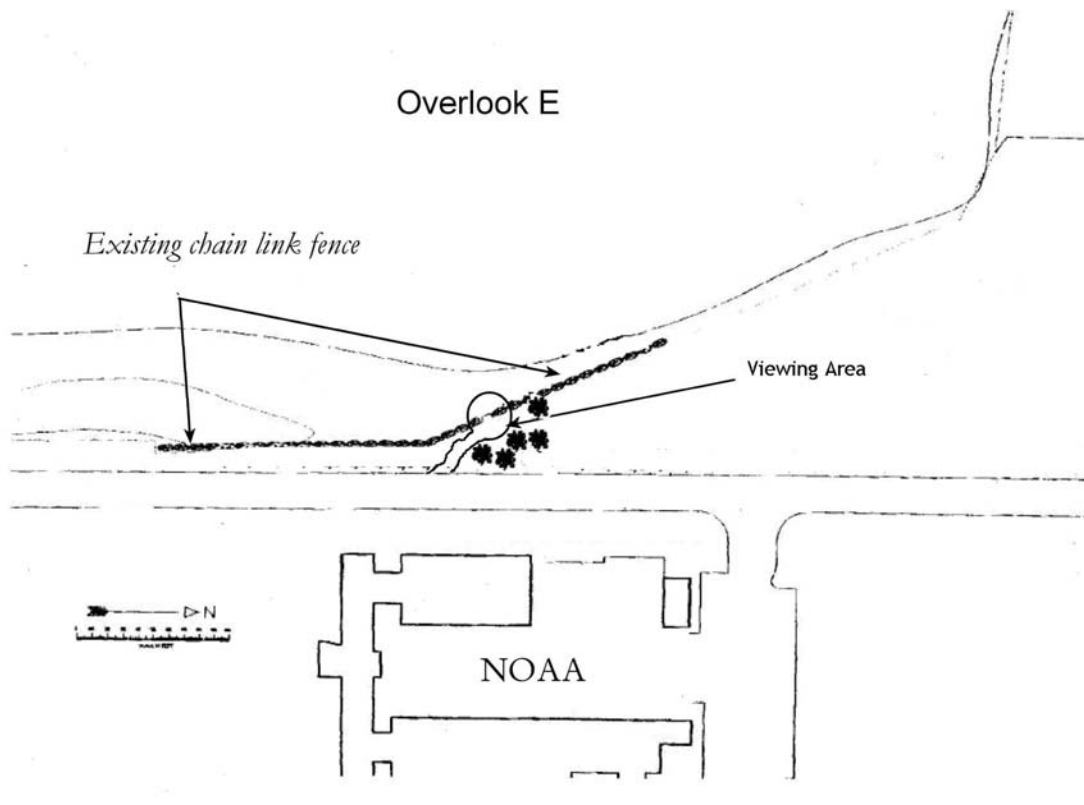


Figure 5. Overlook “E” Illustrative Plan (based on CLRDP Figure 7.11)

Overlook F Design and Siting

Overlook F would be a new bluff top overlook to be established near the coastal bluff edge at the southeastern corner of the Campus, at a slight promontory in the bluff roughly 100 feet west of the De Anza Mobile Home Park (see CLRDP Figure 91). This overlook would be sited to be easily accessed from the existing public bluff top trail, improvements to which are required under the CLRDP and are being considered as part of a larger development program, in a separate environmental document currently in preparation. Bicycle racks and trash/recycling cans would be provided near the overlook, and a low-profile bench or benches at the overlook. The overlook would be oriented so as to best provide panoramic ocean views with as little obstruction as possible. To minimize visual obstructions in the views while also ensuring public safety, low vegetative barriers rather than fencing would be used along the bluff edge, if feasible. Interpretive signs also would be of low profile and placed so as not to adversely impact ocean views. The area around the overlook has recently been restored through removal of non-native ice plant and replanting in native species. The overlook access path and site, an area of approximately 200 square feet, would be surfaced with permeable, ADA-accessible material. Construction would require little or no grading. Subsequent to construction, additional native plantings of coastal bluff top species would be placed in any exposed areas.

Overlook Construction Activities

All staging activity for overlook construction will be carried out in existing paved or graveled parking lots and work areas. Because the project would require relatively small amounts of

materials and little mechanical equipment, only a small area would be needed for staging, and this can be accommodated in existing paved areas of the campus. Two or more improvement projects could be underway simultaneously, with total work crew of up to 8 persons. Work would be accomplished over a 4 month period, beginning in spring, 2011. Most work would be carried out by hand or with hand-held power tools; however, decking, railing and paving materials would be transported to each overlook site by truck, forklift or backhoe.

No grading would be required for Overlook C. Very minor leveling and surface compaction would be required for Overlook F. A small amount of earth moving, likely using a small backhoe, would be needed for construction of overlooks A and E, and a larger amount of earth moving would be needed to create the viewing area and ADA-access route for Overlook D. For that overlook, about 20 cubic yards of soil would be cut from the viewing platform area and placed as fill on the small ridge behind the viewing platform, to allow the viewing platform to be “tucked” into the slope. Minor cut and fill also would be needed along the Overlook D access trail route, and some segments of the route could require construction of simple, low retaining or support walls, which likely would consist of wooden planks held upright with concrete stakes or a very low retaining structure of dry-stacked 6-inch- to 12-inch-diameter stones. It is anticipated that cut and fill would be balanced, such that only a minimum of fill import or off-haul would be needed. Any grading plan will be accompanied by a storm water control plan, which will be implemented if any grading is to be conducted during the rainy season or if rain threatens. It is not anticipated that the project would require any permanent storm water diversion features, as viewing platforms and path surfaces would be constructed of pervious or semi-pervious materials that would ensure that ground water is infiltrated on site.

Overlooks A, D and E would require some vegetation removal. The most extensive area of vegetation clearing would be for Overlook D, where the access route runs through coastal scrub that would have to be cleared. Both sides of the path and the areas graded to create the viewing platform would be replanted in native vegetation at the conclusion of construction. Minor clearing could be required at overlooks A and E to make way for the viewing platforms; these areas also would be replanted in native vegetation at the conclusion of construction. Ice plant at the Overlook F site was recently removed as part of the campus’ program to extirpate invasive non-natives, and the area around the overlook site has been replanted in low-growing native plants. New plantings would be installed in graded areas as soon as possible after construction and would be mulched to control erosion while vegetation is re-established.

Project Schedule

As detailed in CLRDP Chapter 9 (Table 9.3), work at overlooks A, C, D and E was to be completed within one year of CLRDP certification; work at overlooks B and F were to be completed within two years of CLRDP certification. Overlook B improvements have been completed. For the other overlooks, because development under the CLRDP has proceeded at a slower pace than anticipated, the campus has requested that the California Coastal Commission extend these timelines. The campus has committed to complete all overlook construction and improvements by December 2011.

IV. PROJECT OBJECTIVES

The primary purpose of the project is to provide public points of visual access to the ocean, Younger Lagoon Reserve and the seasonal wetland north of Seymour Marine Discovery Center, to

support active and passive recreation and enjoyment of coastal areas and education about coastal resources and issues. Through implementation of the project, the campus would comply with and implement policies and implementation measures included in and required by the California Coastal Commission as part of its certification of the CLRDP, which are noted in relevant sections below. The text of applicable implementation measures is provided in Appendix A of this document.

V. PROJECT APPROVALS AND PERMITS

The previously-approved 2004 Coastal Long Range Development Plan (CLRDP) for the University of California, Santa Cruz's (UCSC's) Marine Sciences Campus includes policies and implementation measures that require UCSC to construct improvements to existing public access Overlook D on the Marine Science Campus and develop two new coastal overlooks, designated overlooks A and E. These were briefly described in the Draft CLRDP. Improvements to two additional existing overlooks, B and C, and addition of Overlook F were added to the CLRDP during Coastal Commission and public consultation and were included and described in the Final CLRDP (UCSC 2007), which also prescribed timing for the implementation of all the overlook projects. Schematic descriptions of the overlooks are included in the CLRDP and the CLRDP EIR, but the Overlooks Project has not previously been analyzed at the project level in any of the CEQA assessments of the CLRDP.

Subsequent to the Regent's approval and the Commission's certification of the CLRDP, Overlook B improvements were constructed as part of a separate project approved under a CEQA Categorical Exemption. More detailed plans for improvements to Overlooks C and D and development of new overlooks A, E and F have now been prepared. This detailed planning elaborates upon, but is consistent with the overlooks as contemplated and described in the final CLRDP.

This Initial Study describes and analyzes the potential environmental effects of implementation of the proposed Public Access Coastal Overlooks and Overlook Improvements Project (hereinafter the "Overlooks Project"), which consists of construction of overlook improvements and new overlooks under the now-refined plans. Analysis provided in this Initial Study augments the analysis of public access improvements that was included in the CLRDP EIR.

The Chancellor of UCSC will determine, based on review and consideration of the CLRDP EIR and this Initial Study and proposed Mitigated Negative Declaration, whether to approve the Overlooks Project. In addition, the University must file a Notice of Impending Development (NOID) for the project with the California Coastal Commission, which will determine whether the proposed project is consistent with the previously-approved CLRDP. It is not anticipated that any permits from other agencies will be required.

VI. CONSISTENCY WITH THE CLRDP

The proposed Overlooks Project responds to the requirements of Implementation Measure (IM) 6.1.4 and other related CLRDP implementation measures listed in Appendix A to this Initial Study and referenced in relevant analytical sections. Development of the project would implement some of the public access and resource protection and interpretation requirements of the CLRDP. Project design has been subjected to design review for consistency with CLRDP standards. The project would not result in an increase in campus or community population levels except as part of the generalized slow background growth in campus visitor population anticipated in the CLRDP. The

CLRDP Implementation Measures listed in Appendix A of this Initial Study have been taken into account in Overlook project siting, design and construction planning and applicable measures are incorporated into the project. The project therefore is consistent with the applicable policy objectives and goals of the CLRDP

VII. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

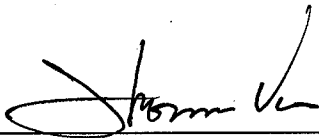
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

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

VIII. DETERMINATION: (To be completed by lead agency)

On the basis of the initial evaluation that follows:

- I find that the proposed project **WOULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the proposed project could have a significant effect on the environment, the project impacts were adequately addressed in an earlier document or there will not be a significant effect in this case because revisions in the project have been made that will avoid or reduce any potential significant effects to a less than significant level. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project **MAY** have a significant effect on the environment. An **ENVIRONMENTAL IMPACT REPORT** will be prepared.

	<u>10.20.10</u>
Signature	Date
<u>Thomas Vani</u>	<u>University of California</u>
Printed Name	For

IX. EVALUATION OF ENVIRONMENTAL IMPACTS

The University has defined the column headings in the Initial Study checklist as follows:

A. **Potentially Significant Impact** is appropriate if there is substantial evidence that an effect may be significant. If there is one or more “Potentially Significant Impact”, an EIR will be prepared.

B. **Project Impact Adequately Addressed in CLRDP EIR** applies where the potential impacts of the proposed project were adequately addressed in the CLRDP EIR and mitigation measures identified in the CLRDP EIR will mitigate any impacts of the proposed project to the extent feasible. All applicable CLRDP EIR mitigation measures are incorporated into the project as proposed. The impact analysis in this document summarizes and cross references (including section/page numbers) the relevant analysis in the CLRDP EIR.

C. **Less than Significant with Project-Level Mitigation Incorporated** applies where the incorporation of project-specific mitigation measures will reduce an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” All project-level mitigation measures must be described, including a brief explanation of how the measures will reduce the effect to a less-than-significant level.

D. **Less Than Significant Impact** applies where the project will not result in any significant effects. The effects may or may not have been discussed in the LRDP program EIR. The project impact is less-than- without the incorporation of LRDP or Project-level mitigation.

E. **No Impact** applies where a project does not create an impact in that category or the category does not apply. “No Impact” answers need to be adequately supported by the information sources cited, which show that the impact does not apply to projects like the one involved (*e.g.*, the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (*e.g.*, the project will not expose sensitive receptors to pollutants, based on a project specific screening analysis).

X. Impact Questions and Responses

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

Relevant Features of the Project

The proposed Overlooks Project consists of minor improvements to existing Overlook C; improvements to existing Overlook D including development of a graded ADA accessible path down a slope and construction of an observation blind; and development of new overlooks A, E and F. Proposed development of Overlook F would be confined to installation of low fencing, surfacing, interpretive signs and a bench and similar amenities at an existing informal overlook on the ocean cliff. New overlooks A and E would require some vegetation clearing, grading for platform and path construction, and installation of fencing and signage. None of the improvements would include lighting or potentially reflective features. The bird blind proposed for Overlook D to be set into the slope above Younger Lagoon, has been designed and would be constructed of materials that would minimize its visibility from within the reserve. Overlook F, the site of which would be visible in views from the ocean, would include path improvements and installation of a bench, but these improvements would not be expected to be noticeable in views of the site from the ocean.

Implementation Measures and Mitigation Measures Incorporated

The proposed project is consistent with the site locations and schematic designs included in the CLRDP and complies with and incorporates aesthetics-related CLRDP policies 4.2 (protection of Scenic Quality) and 4.3 (Visual Intrusion and Lighting), and Implementation Measures 4.2.1 (Design Standards), 4.2.2 (Alteration of Natural Landforms), 4.2.7 (Construction Materials), 4.3.1 (Visual Intrusion into Younger Lagoon Reserve), 4.3.2 (Visual Intrusion into Terrace ESHA and Other Areas Outside Development Zones), and 6.1.4 (Public Access Overlooks) (as detailed in

Section V, above) to ensure that overlook facilities are consistent with CLRDP design standards and are not visually intrusive in coastal views or views of Younger Lagoon. No CLRDP EIR mitigations related to aesthetics were identified in the CLRDP EIR

Previous Analysis

a-d) The CLRDP EIR (Section 4.1) analyzes potential impacts of the entire CLRDP program of development on scenic vistas, scenic resources, and the visual character and quality of the Marine Science Campus site and its surroundings. The CLRDP includes an extensive list of policies and implementation measures, to ensure that CLRDP development would not result in significant environmental impacts, including aesthetic impacts. Items relevant to the project are listed in Appendix A of this document. The CLRDP EIR does not identify any significant aesthetic impacts related to the CLRDP development program, which includes development proposed as part of this project.

Project-Level Environmental Review

a-d) The designs of improvements to Overlooks C and D and of new overlooks A, E and F have not changed significantly from the preliminary designs presented in the CLRDP. The trail to Overlook D is longer than anticipated in the CLRDP, to provide a slope shallow enough to accommodate ADA access. Overlook A originally was conceived as a wooden platform; the platform was eliminated, again to ensure that the facility would be ADA accessible. Overlook E was conceived as an alcove in the YLR fence, and a row of cypress trees was included as a screen. On the advice of the YLR manager, who believed that a secluded alcove would promote illicit human access in to the YLR area, the size of the alcove has been minimized. Further, rather than Monterey Cypresses, which are now considered invasive and will not be planted on the campus in future based on findings of the Specific Resource Plan Scientific Advisory Committee, tall shrubs will be planted to screen views of McAllister Way from the YLR. These design changes would not significantly alter the aesthetic effect of any of the overlooks, and therefore are consistent with the design criteria included in the CLRDP to ensure that CLRDP development, including the then-envisioned overlooks, would not result in significant impacts with respect to scenic vistas (DEIR 4.1-36), scenic resources (DEIR 4.1-39), visual character or quality (4.1-42), light or glare (4.1-42) or cumulative aesthetic impacts (4.1-47).

Summary

The Overlooks Project is consistent with the adopted CLRDP, the CLRDP EIR, and would not introduce any new potential aesthetic impacts. No changed circumstance or new information is present that would alter the conclusions contained in the previous analyses. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address aesthetic impacts of the Project.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-Level Mitigation Incorporated	Less Than Significant Impact	No Impact
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1. AGRICULTURAL RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-Level Mitigation Incorporated	Less Than Significant Impact	No Impact
timberland, are significant environmental effects, lead agencies may refer to information compiled by the CA Dept. of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined in Public Resources Code 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Relevant Features of the Project

The proposed project consists of development of several public access overlooks at the ocean and Younger Lagoon coasts of the campus site and one overlook at a wetland adjacent to the Seymour Discovery Center. The overlooks, located throughout the campus' Lower Terrace, would provide visual coastal access and interpretive materials for public visitors to the campus, but are not expected to result in a measureable increase in average daily campus population. None of the

overlooks would be sited on the campus' Upper Terrace, the only part of the campus that adjoins agricultural lands

Implementation Measures and Mitigation Measures Incorporated in the Project

None of the CLRDP Implementation Measures are relevant to the proposed project.

CLRDP EIR General Mitigation Measure 4.2-1, which is included as part of the proposed project, requires that a fence and screen of shrubs or trees be constructed along the boundary between the campus and the adjacent Younger Ranch agricultural fields in conjunction with the first development project on the campus, to ensure that campus development does not result in incursions by members of the public onto adjacent farm lands. As the first development project on the campus under the CLRDP, the Overlooks Project would trigger this measure. However, planting of a vegetation screen along the Wetland W1 buffer adjacent to Younger Ranch, which is one element of this mitigation measure, is already being carried out as part of the Specific Resource Plan, Phase 1A (a non-development project), which was approved previously under Addendum #2 to the CLRDP EIR. This screen will augment the previously-established wetland buffer between the campus and potential agricultural activities at Younger Ranch. In addition, the campus has already constructed a portion of the fence required by CLRDP EIR mitigation Measure 4.2-1, and will construct the remainder of the fence during fiscal year 2010-11 as part of the SRP Phase 1A project (currently under CCC consideration for approval), prior to or concurrently with the development of the Overlooks Project.

Previous Analysis

a) Soils on the lower terrace are of lesser quality than middle and upper terrace soils. Based on an analysis of the Marine Science Campus following the California Department of Conservation Land Evaluation and Site Assessment (LESA) Model, the CLRDP EIR determined that agriculture on the Marine Science Campus would not be economically viable due to the high costs of providing water to the site for irrigation. Therefore, the CLRDP EIR concluded that development under the CLRDP, which includes the proposed Overlooks Project, would not result in significant impacts on Farmland (CLRDP EIR: 4.2-12 and -13).

b) The Marine Science Campus and the adjacent Younger Ranch are not under Williamson Act contract; therefore, the CLRDP EIR concluded that development under the CLRDP, including development of the public access overlooks, would have no impacts on Williamson Act lands (p 4.2-13).

c, d) These items, which were added to the CEQA checklist in January, 2010, subsequent to the approval of the CLRDP EIR, are addressed under "Project-Level Environmental Review", below.

e) The CLRDP EIR analyzed the potential that development and increased campus population under the CLRDP could constrain use of certain pesticides on adjacent agricultural lands and generate complaints of nuisance, vandalism/theft, pilferage, and trespass/liability at the Younger Ranch, and that these pressures could increase costs of agricultural operations, impair productivity, and diminish the feasibility of continued agricultural production, possibly resulting in the eventual removal of adjacent land from agricultural use. The potential for this impact to occur was considered less than significant (CLRDP EIR p 4.2-14 to -15). The Overlooks Project, in improving public access on the campus, could contribute to this less-than-significant impact.

CLRDP General Mitigation 4.2-1, described above, which would further reduce the significance of this already less-than-significant impact, has been partially implemented by the campus, and

will be fully implemented in advance of or concurrently with construction of the proposed project, independent of the Overlooks Project.

Project-Level Environmental Review

c, d) The Overlooks Project includes minor development at five locations on the lower terrace of the Marine Science Campus. The campus land is not classified as forest land or timberland and the project therefore would not result in conversion of any forest land to non-forest land. No impact would occur.

Summary

As described above, the proposed project, as new campus development, would trigger **CLRDP EIR General Mitigation 4.2-1**; however, the campus is in the process of implementing this measure independent of campus development. The finding that the Overlooks Project would not result in any significant impacts to agricultural resources is consistent with the adopted CLRDP, the certified CLRDP EIR. The project would not introduce any new potential agricultural impacts, and no changed circumstance or new information is present that would alter the conclusions contained in the previously-certified CLRDP EIR. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address agricultural impacts of the Project.

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

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Relevant Features of the Project

The proposed Overlooks Project consists of improvements to two existing overlooks and new construction of three overlooks, and would entail grading for pathways and pads, vegetation removal and replacement, and installation of fences, interpretive signage and one small structure (a bird blind).

The use of heavy equipment (a small “bobcat” excavator) for grading and construction at some or all of the project sites, for a total duration of no more than a few weeks, would generate small amounts of air pollutant emissions, including PM₁₀. The project would not develop any new stationary sources of air pollutant emissions or toxic air contaminants and is not anticipated to result in a measurable increase in average daily population at the campus except as relates to slow background growth in campus visitor population anticipated in the CLRDP EIR.

Implementation Measures and Mitigation Measures Incorporated

The project includes implementation measures related to transportation demand management. These are listed in Section 13, below (Transportation/ Traffic). The full text of relevant measures is provided in Appendix A of this document. Specifically, the project would encourage pedestrian recreational use of the campus and also would provide bicycle racks to encourage the use of bikes rather than cars to access the campus.

CLRDP EIR Project Specific Mitigation Measure 4.3-1 (CLRDP EIR p 4.3-16), includes a suite of measures to minimize emissions of fugitive dust and construction vehicle fumes during construction associated with CLRDP implementation, including the proposed project, and is therefore included in the proposed Overlooks Project. This measure requires implementation of dust-control measures and best management practices during construction.

Previous Analysis

a-d) The CLRDP EIR analyzed the following air quality issues: potential construction emissions of respirable particulate matter (PM₁₀), ozone precursors, and toxic air contaminants (TACs); operational emissions of criteria pollutants, carbon monoxide (CO), and TACs; objectionable odors; cumulative emissions of CO and TACs; and consistency with Air Quality Management Plan. Implementation of the Overlooks Project would contribute to the construction emissions of PM₁₀ and TACs associated with development under the CLRDP but would not contribute significantly to the identified operational emissions of CLRDP development.

The Association for Monterey Bay Area Governments (AMBAG) found that the CLRDP was consistent with the 2000 Air Quality Management Plan for the Monterey Bay Area.⁵ Therefore, emissions of VOCs, NOX, and SO₂ resulting from implementation of the CLRDP, including the proposed Overlooks Project, are considered to have a less-than-significant cumulative impact on regional air quality (CLRDP EIR 4.3-26).

⁵ AMBAG, 2003

Construction PM₁₀ Emissions. Based on the size of the area that would be graded for construction of each project under the CLRDP, the EIR concluded that PM₁₀ emissions from construction of multiple projects at the same time could exceed the significance threshold established by the Monterey Bay Unified Air Pollution Control District. The Overlooks project could include simultaneous construction at more than one location and the cumulative area of the overlooks and associated access trails may exceed one acre. Implementation of CLRDP EIR Project Specific Mitigation Measure 4.3-1 (which is included in the proposed Overlooks Project) would ensure that temporary and localized air quality impacts (fugitive dust and construction vehicle emissions) from construction activities under the CLRDP less than significant (CLRDP EIR p 4.3-16).

Construction TAC Emissions. The CLRDP EIR included a health risk assessment that analyzed the potential acute exposure and long-term carcinogenic risks from construction emissions of TACs in diesel particulates and in the form of soil contaminants carried in fugitive dust. The estimated maximum acute exposure levels of TACs from fugitive dust during construction activities under the CLRDP, including the Overlooks Project, are below the acceptable threshold levels for both acute exposure and carcinogenic risk. Therefore, implementation of the CLRDP, including the Overlooks Project would not cause or substantially contribute to significant (adverse) health impacts (carcinogenic and non-carcinogenic) from the emissions of TACs (CLRDP EIR p 4.3-18).

e) The CLRDP EIR determined that implementation of the CLRDP, including implementation of the Overlooks Project, would not result in objectionable odors (CLRDP EIR p 4.3-24).

Project-Level Environmental Review

As analyzed above, the Overlooks Project would not result in a significant air quality impact, and is consistent with the adopted CLRDP and the certified CLRDP EIR. The project incorporates **CLRDP EIR General Mitigation Measure 4.3-1**, which would reduce the project’s PM₁₀ construction emissions to a less-than-significant level.

Summary

The project would not introduce any new potential air quality impacts not previously addressed in the CLRDP EIR, and no changed circumstance or new information is present that would alter the conclusions contained therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address air quality impacts of the Project.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
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3. BIOLOGICAL RESOURCES -- Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?					
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any applicable policies protecting biological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Relevant Features of the Project

The proposed Overlooks Project consists of minor improvements to one existing overlook (C), major improvements to one existing overlook (D) and construction of three new overlooks (A, E and F) and associated access paths. Construction would include grading and earth moving to create the path to and pad for Overlook D, which would be set on the slope above Younger Lagoon, within the Younger Lagoon Reserve, and within the Environmentally Sensitive Habitat Area (ESHA) buffer for the reserve. The project would require removal and restoration of native plantings which do not include any special status species. The new trail would have a pervious surface and an infiltration trench would be constructed adjacent to the overlook to capture and infiltrate roof runoff from the overlook bird blind, to ensure that the project would not result in any increase in storm water runoff. Construction of Overlook E, which also would overlook Younger

Lagoon and be within its ESHA buffer, would entail relatively minor grading, modification of a fence, and vegetation trimming to provide increased visibility into the lagoon. Overlook A, which would be marginally within the wetland buffer for Wetland W5, adjacent to the Seymour Discovery Center parking lot, would entail grading and related vegetation removal, although to a lesser degree than for Overlook D since the site is only slightly sloped. Disturbed areas would be replanted with appropriate native plants. Improvements to Overlook C, an existing viewing platform overlooking the campus' marine mammal pools, would not involve any significant ground disturbance or any plant removal. Overlook F, a location currently used informally as an overlook, would require very minor grading for installation of a path and pad for a bench. The site is a level location that presently is being restored with native plants. Any disturbed area would be replanted in native species. All new paths and overlook pads would be surfaced with a pervious, but ADA-accessible material, as described above. None of the overlooks or paths would include night lighting, and no reflective materials would be used in construction. All materials, design and construction would conform to the applicable CLRDP policies, implementation measures and mitigation measures referenced below and listed in Appendix A of this document, which are incorporated in the project.

CLRDP Implementation Measures Incorporated

The following CLRDP implementation measures (IMs) are applicable to and included as part of the proposed Overlooks Project:

IM 3.2.4 (Management of Special Status Species Habitat) requires that development under the CLRDP, including the overlooks, be sited and designed to avoid intrusion into wetlands and other special status species habitat.

IM 3.2.5 (Protect Habitat Areas from Human Intrusion) requires that CLRDP development be sited and designed in such a way is to minimize human intrusion into sensitive habitat area and to screen human activity from wildlife in these areas. The proposed overlooks have been sited and designed as conceptualized in the CLRDP in a manner that would provide the public with visual access to sensitive habitat area while protecting these areas from human intrusion with features such as vegetation screening, fencing and blinds.

IM 3.2.9 (Wetland Buffers) is applicable to Overlook A which is sited in a wetland buffer. The CLRDP authorizes the development of interpretive trails and public access overlooks within wetland buffers.

Overlook sites A, C, D and E are within 100 m of wetland resources. **IM 3.2.11 (California red-legged frog [CRLF] protection)** requires surveys for CRLF of any proposed development area within 100 m (about 300 feet) of any wetland. All wetlands and wetland buffers on the campus were surveyed for the presence of CRLF in spring 2010 (Ecosystems West 2010), as described below. The project also includes pre-construction exclusion and construction mitigation measures for the protection of CRLF, as required by the implementation measure. These are described below.

IM 3.2.12 (USFWS Consultation Required), which requires consultation with USFWS on all proposed development projects to determine whether the project has the potential to result in take of CRLF, is applicable to and included in the project. The proposed project includes implementation and mitigation measures developed in consultation with USFWS, to avoid take of CRLF. The campus consulted with USFWS and has obtained formal concurrence that with the

inclusion of the measures described below the project would not result in a take of California red-legged frog.

IM 3.2.14 (Non-Invasive Native Plant Species), which requires that any new plantings consist of non-invasive natives, is included as part of the project. The project includes replanting of disturbed areas with native non-invasive plants. Consistent with the recently approved Specific Resource Plan Phase 1A, these would be grown from locally-collected seeds and cuttings subsequent to construction.

IM 3.3.1 (Pre-development Evaluation of Wetland Conditions) and IM 3.4.4 (Pre-Development Evaluation of Environmentally Sensitive Habitat Areas [ESHA] Conditions) are applicable to the project and, in compliance therewith, a qualified biologist and a wetland specialist conducted pre-development evaluations of the project sites relative to wetland boundaries and special status species (Biosearch 2010; Huffman-Broadway Group 2010). Although, as allowed under the CLRDP, the sites of Overlook A is within a wetland buffer, overlooks D and E are in the buffers for designated ESHAs, and Overlook F is in the ESHA coastal bluff, none of the overlook sites is within a wetland or other ESHA.

IM 3.4.1 (Additional Measures to Protect Habitat Areas), is applicable to the project. This measure requires that campus development, including the proposed overlooks, access trails and interpretive elements be designed and sited to avoid disruption of habitat values in Environmentally Sensitive Habitat Areas. The project does not include lighting. Project features are sited to minimize visibility from within the ESHA, through topographic or vegetation screening. The blind at Overlook D will use only non-reflective materials and is designed to blend visually with the slope behind it.

IM 3.4.2 (Noise Intrusions into Terrace ESHA) and IM 3.4.3 (Noise Intrusion into YLR) apply to Overlook sites D and E, which are within the buffer for Younger Lagoon Reserve, and Overlook A is near the buffer of Wetland W5, a Terrace ESHA. Accordingly, these overlooks have been designed for quiet observation of wildlife and wildlife habitat and would be accessed only on foot. The potential for noise intrusions into these areas during construction is discussed in Section 10 (Noise), below.

IM 3.5.1 (Protection and Enhancement of YLR Habitats) is applicable to Overlooks D, E and F, which are sited within the YLR and Overlook sites A and C, which are at its margins. Accordingly, all overlook designs minimize grading and include topographic or vegetative screening and post-construction replanting of native plants, to protect and enhance the reserve.

IM 3.5.2 (Protection of Special Status Species in YLR), is applicable to the proposed project, which includes CLRDP project-level and project specific mitigation measures to protect special status species and nesting birds, as described below.

IM 3.5.3 (Protection of YLR Resources), is applicable to the project and, accordingly, all overlook designs include vegetal buffers and utilize pervious surfacing materials and infiltration features as needed, such as at the Overlook D blind, to minimize any new runoff and to maintain a screen around human activity.

IM 3.5.6 (Consultation with YLR Manager) is applicable to the project and the campus has consulted with the YLR manager (meeting 6/21/10 and comments on draft of this Initial Study) on the design, siting and landscaping restoration components of the Overlooks. The manager's comments and YLR resource values were taken into account in the siting details and design of the

overlooks. Designs incorporate features to avoid creation of stormwater runoff, ensure appropriate revegetation after construction, and minimize the visual intrusiveness of overlooks into natural areas, while also providing public access and education.

IM 3.5.7 (Movement not Visible from YLR) is applicable to Overlook D, which includes a wildlife blind and topographic screening to minimize the extent to which human activity is visible from inside the YLR, and Overlook E, which also includes vegetal screening.

IM 3.6.2 (Visual Access to YLR) is applicable to Overlooks A, C, D and E, which have been designed to provide visual access to the YLR. Overlooks A and E will be available for unescorted viewing.

IM 3.7.2 (Coastal Bluff and Bluff Top Area Protection and Enhancement Measures), is applicable to Overlook F, which is sited on the coastal bluff top. Work at this site would include removal of residual non-native invasive plants and restoration with native plantings to hold the bluff as needed and reduce erosion.

IM 4.3.1 (Visual Intrusion into YLR) and **IM 4.3.2 (Visual Intrusion into Terrace ESHA and Other Areas Outside of Development Zones)** are applicable to all of the proposed overlooks and, accordingly, the design for each includes vegetal or topographic screening, and none of the overlook designs includes lighting, and all include vegetal or topographic screening to the maximum extent compatible with providing observation points.

IM 6.2.3 (Access to Resource Protection Areas) and **IM 6.2.5 (Access to Coastal Bluffs)** are applicable to the project, which include fences, vegetation screening, informational signs and, in some cases, controlled access provisions to provide resource protections.

Full text of relevant IMs are included in Appendix A of this document. IMs included in the Overlooks Project that would avoid or mitigate impacts are discussed by issue area under “Project-Level Environmental Analysis”, below.

All measures relevant to design and siting were incorporated in the schematic siting and design of the overlooks as described in the CLRDP. Project refinements since that time also comply with these siting and design requirements, as required by the CLRDP.

Previous Analysis

a) The CLRDP EIR determined that no special-status plant species occur on the Marine Science Campus and that special status plants are unlikely to be present in campus development areas due to the lack of suitable habitat and that the implementation of the proposed CLRDP therefore would not have the potential to result in significant adverse impacts on any special-status plant species under CEQA (CLRDP EIR p 4.4-60).

The CLRDP EIR reported the presence of juvenile and sub-adult California red-legged frogs (CRLF), a federally listed threatened species, in a ditch along the railroad tracks immediately adjacent to the northern margin of the campus but, as of 2002, no CRLF had been observed on the campus and no suitable breeding habitat was present on or adjacent to the campus. For successful reproduction to occur, surface water must be present at a minimum from March to late June (Ecosystems West 2002). Breeding adults require ponded or slow moving water and good aquatic cover (e.g., emergent vegetation and riparian cover). This habitat typically is in the form of permanent or semi-permanent freshwater bodies or tidally influenced coastal marshes with low salinity levels. The open waters of Younger Lagoon, at the western margin of the MSC, are too saline to support CRLF populations. The upper arms of the lagoon contain small drainages that

may provide cover and temporary hydration points, but are considered too ephemeral to support reproduction. Adults usually stay within a few feet of surface water areas during spring and summer months but will move up to 3 miles to other aquatic areas during rainy weather. CRLF potentially could move seasonally around the northern portion of the Younger Lagoon drainages.

As described in the CLRDP EIR, the wetland areas on the upper terrace do have the potential to provide temporary hydration and foraging areas for CRLF during winter movements, including along the CLRDP-designated wildlife corridor along the northern edge of the Upper Terrace. Although dense grasslands, ruderal habitat and coyote brush scrub such as are present on the campus provide suitable upland habitat for movement and aestivation, during the non-breeding season (June through December) CRLF require moist areas, which often are densely vegetated or support standing water. The CLRDP EIR determined that the wetlands on the campus are not potential breeding habitat, and that the potential for dispersing individuals to be present in the campus grasslands is low, particularly during the dry season, because of the distance from breeding sites and because the aquatic habitat on the site, critical in providing hydration during upland movement, is ephemeral. As reported in the CLRDP EIR, the USFWS concurred with these conclusions (CLRDP EIR 4.4-64).

The CLRDP EIR determined that development under the CLRDP, including the proposed Overlooks, would not affect CRLF breeding habitat and would have a less-than-significant impact on CRLF because development would be set back from the northern margin area where CRLF were observed as of 2002, and because the CLRDP designated the majority of the Upper Terrace, which was considered as potential upland habitat, as resource protection area (CLRDP EIR p 4.4-62). **CLRDP IM 3.2.11** (see Appendix A of this document) nonetheless requires CRLF surveys prior to approval of development within 100 m (about 300 feet) of any wetland on the campus. Furthermore, the CLRDP EIR identified CLRDP Project-Specific Mitigation Measure 4.4.1 to further reduce the less-than-significant impact of CLRDP development on CRLF. As discussed below, this measure, as modified below, applies to and is included in the Overlooks Project.

The CLRDP EIR also determined that the dense coastal scrub and riparian areas in the YLR are suitable habitat for San Francisco dusky-footed woodrat, a state and federal species of concern, but that these areas would not be affected by development under the CLRDP and that no impact to this species therefore would occur (CLRDP EIR 4.4-66).

b) The CLRDP EIR did not identify any sensitive natural communities on the Marine Science Campus other than wetlands, which are discussed under c), below.

c) The CLRDP delineates sensitive habitats and wetlands and wetland buffers on the campus, and permanently protects them from development, and therefore the CLRDP EIR concluded that CLRDP implementation would not cause significant adverse effects on these sensitive habitats (CLRDP EIR p 4.4-68). Overlooks and public access trails are allowable development for wetland buffer areas under the CLRDP. CLRDP IM 3.3.1 requires pre-development confirmation of wetland delineations to provide for adjustments of wetland and buffer boundaries to ensure wetland protection. The current delineation was certified by the Army Corps of Engineers based on a field review in March 2007. This federal jurisdictional delineation is considered valid for five years from certification, or until March 2012.

d) The CLRDP EIR evaluated the potential that development in annual grassland and coastal scrub in the development zones on the Middle and Upper terraces could disturb nesting raptors, including burrowing owls, a California species of special concern, through the direct effects of

ground disturbance and the indirect effects of increased human activity and noise. The CLRDP EIR determined that this impact would be less than significant because raptor nesting records are limited for the site and there is abundant protected foraging habitat in the region, including substantial areas of the Marine Science Campus and Younger Lagoon Reserve (CLRDP EIR p 4.4-64). The CLRDP EIR identified **Project Specific Mitigation Measure 4.4-2**, detailed below, which is applicable to and included as part of the project (as modified below), to further reduce the less-than-significant impact.

The CLRDP EIR identified a CRLF movement corridor along the northern margin of the campus, but determined that development under the CLRDP would not result in significant impacts to Marine Science Campus wildlife corridors, because these habitats are outside the CLRDP-allowed development zones and are protected by buffers (CLRDP EIR p 4.4-69). No other movement corridors or nesting or breeding sites were identified.

e, f) The CLRDP EIR determined that development under the CLRDP would not interfere with the Younger Lagoon Reserve Management Plan, which is the only plan for conservation of biological resources that applies to the Marine Science Campus. The CLRDP was developed in consultation with the then-current YLR manager and is consistent with the goals of the YLR Management Plan in place at the time of CLRDP approval. The proposed overlooks are described in and consistent with the CLRDP and therefore are consistent with the YLR Management Plan.

Project-Level Environmental Review

a) Construction at overlook sites and for their access paths, in particular at sites A and D and to a lesser extent sites E and F, would require grading and other ground disturbance. Consistent with **IM 3.2.4 (Management of Special Status Species Habitat)** and other IMs protective of special habitat areas on the campus (as described above), each of the overlooks has been sited to avoid intrusion into wetlands and other potential special status species habitat, and the development would not affect any CRLF breeding habitat. Subsequent to construction, disturbed areas would be replanted in native plants as needed to restore native habitat.

Special Status Plants. A botanical survey of the project development footprints (see Figure 2, above) was undertaken by a qualified botanist in July and August 2010 (Biosearch 2010) to update data presented in the CLRDP, which were collected in 2002. No special status plants were observed within any of the project footprints during the 2010 survey. Although this botanical survey was undertaken outside of the blooming season for most special status plants, the findings are consistent with informal observations by YLR staff over the past several years (Howard, personal communication 6/2010), and with the findings reported in the CLRDP EIR. No significant impacts with respect to special status plants therefore are anticipated, and the project would include restoration of native plants and would be expected to result in a net benefit with respect to native plant habitat. Nonetheless, it is possible that special status spring-blooming plant species could be present that were not detected during the non-blooming season and that individuals or clusters of such plants, if present, could be injured or destroyed by the proposed project. Since no such plants have been reported for the campus in the past, this would represent a new occurrence of special status plants on the campus, and the potential destruction therefore would be a potentially significant impact. The following Overlooks Project-specific mitigation therefore is included in the proposed project:

Overlook Project-Specific Mitigation Measure BIO-1: A qualified botanist will conduct a focused plant survey for special-status plant species on and within 100

feet of all areas of ground disturbance during the spring-summer blooming period immediately prior to the construction period. If no special-status species are observed during the focused survey, no additional mitigation is necessary.

If any special status plants are observed on any of the project sites, a botanist will map and quantify the population and establish a suitable buffer zone based on species requirements, proximity to the work area, and other site-specific factors. The identified population or individuals will be protected during construction by minor footprint modification, exclusion fencing or other protective measures.

If protection of the sensitive areas in this manner would preclude construction, and the population therefore cannot be avoided by the project, a qualified botanist will quantify impacts to the population, and the campus will consult with regulatory agencies (California Coastal Commission, California Department of Fish and Game, and/or U.S. Fish and Wildlife Service, as appropriate) for guidance, and additional measures, such as transplanting, or seed or plant start collection and cultivation for restoration in a protected area, will be identified and implemented to ensure that the special status plant population is preserved.

With the implementation of these measures, the potential impact would be less than significant.

Special Status Wildlife and Wildlife Habitat

California Red-legged Frog

As discussed above, although no CRLF or other special status wildlife species had been found on campus as of 2002, CRLF had been found in a wetland at the northern campus margin (designated W2 in the CLRDP) and along the railroad right of way to the east and west of the campus. The CLRDP EIR determined that the campus wetlands and adjacent wetland areas within 100 m (about 300 feet), in particular on the Upper Terrace, are potential habitat for CRLF.

An updated special status wildlife species survey of all of the campus wetlands and of a buffer area of 100 m (about 300 feet) radius around each wetland was conducted in May 2010, in compliance with **CLRDP IM 3.2.11**. At that time, non-breeding CRLFs were found in a pond at the north end of wetland W2 on the Upper Terrace, and in wet depression D1, south of wetland W6 on the north end of the Middle Terrace (personal communication from Kim Glinka to Dean Fitch and John Barnes, May 10, 2010). No evidence of CRLF breeding (eggs or tadpoles) was observed. Subsequent to this survey, a dead CRLF was found in the Seymour Discovery Center parking lot, in the developed area on the campus Lower Terrace, on August 2, 2010. It presumably had been crushed by a vehicle. On the basis of the recent observations it appears that, while there still is no suitable breeding habitat for CRLF on the campus, CRLF are using the wetlands at the north western margin of the Middle Terrace as well as at the northern margin of the Upper Terrace, at least seasonally, and also may occasionally travel across the areas around and between campus wetlands in the Middle and Lower terraces of the campus.

Depression D1 is the closest wetland location to the Overlooks Project sites at which CRLF have been observed. This wetland is more than 400 m (about 1200 feet) north of the closest overlook site, Overlook E. The Seymour Center area where a dead CRLF was observed is within 100 m (about 300 feet) of overlook sites A, C and D. Overlook C is a developed site surrounded by numerous barriers to CRLF movement (buildings, fences and paving) and it is highly unlikely that CRLF could travel to or across this site. The Overlook F site, on the margin of the coastal bluff, is distant from any known frog occurrence and not en route between waters that likely would attract

CRLF; thus CRLF occurrence at this site also is unlikely. Overlook A provides only marginal upland habitat for CRLF in patches of dense scrub. Overlook sites D and E provide low quality potential upland habitat, since the dense scrub may provides predator protection and complete shade and may harbor moist areas during portions of the dry season. The recent sighting of a CRLF within the nearby developed area indicates that CRLF have on at least one occasion traveled through this part of the campus, and could take ephemeral refuge at or around these sites, at least episodically.

The overlooks, once developed, would continue to provide habitat not much altered from current conditions. Trails and overlook pads would be small and constructed of natural materials and would not provide new barriers or hazards to CRLF movement. The small observation blind at Overlook D would be the only habitat alteration relative to existing conditions, and this would not be significant because its total size would be only about 200 sf. Therefore, the Overlooks Project would not result in loss of CRLF upland movement or summering habitat, nor would the operation of the overlooks, which would consist of pedestrian use of foot trails and overlook pad, pose any new hazards to CRLF for which safe passage protections would be needed.

However, construction of overlooks A, D and E will entail some grading, vegetation removal, and small heavy-equipment traffic. This activity potentially could result in harassment, injury or direct mortality of CRLF, in the unlikely event that a frog might be present in the development footprint of one of the overlooks (see Figure 2). While the potential loss of an individual CRLF would not constitute a substantial adverse effect upon the species, loss of individual CRLF from the small population apparently present at the campus could reduce the distribution of CRLF in this area, contribute to ongoing cumulative losses from development and potentially could jeopardize future population success in the area, and therefore would be a potentially significant impact. Harassment or loss of a CRLF, if CRLF were present within a construction sites, would be considered an incidental take under the federal Endangered Species Act. The previously-adopted CLRDP **Project-Specific Mitigation Measure 4.4.1**, adapted in consultation with USFWS to include revised and additional provisions, as **Overlooks Project-Specific Mitigation Measure BIO-2**, is included in the Overlooks Project to ensure that the Overlooks construction would not result in impacts to CRLF. As the overlook facilities would be accessed only by pedestrians and would not introduce significant barriers to frog movement, no safe passage elements are proposed to be included in the project designs.

Overlooks Project-Specific Mitigation Measure BIO-2: For Overlook sites A, D and E, the University will implement the following measures:

- Prior to commencement of project activities, a qualified biologist will conduct a training session for all construction personnel. Training will include: a description of the California red-legged frog and its habitat; the general requirements of the Endangered Species Act and avoidance of ESA penalties; the boundaries within which construction will be accomplished; and the specific measures to be implemented in conjunction with the Overlooks project to avoid take of CRLF during construction. Each individual that will be working at the project site must undergo this training prior to beginning work at the project site.

- Ground disturbing work will be limited to the period from April 15 through October 15. If work must continue after October 15, the Campus will request an extension from USFWS, in writing, to conduct further ground-disturbing work.
- Immediately prior to vegetation removal for each of the construction sites, a qualified biologist approved by the USFWS will perform a preconstruction survey for CRLF. Vegetation will be hand cleared to a height of 3-6 inches, with hand-carried equipment (which may include chainsaw as needed), and the biologist will then repeat the pre-construction survey before any additional ground disturbance at each of the sites. If during pre-construction survey or during the course of construction CRLF are observed in an area that would be impacted, irrespective of whether the biologist is present, work will cease and the Campus will notify USFWS within one working day. Neither the biologist nor any other individual will handle a CRLF.
- If no CRLF are identified within the work areas during preconstruction surveys, these areas will be surrounded with 3-foot-high, high-grade nylon silt fencing with pre-attached wooden stakes every eight feet, buried 6 inches, to temporarily exclude frogs from the construction site. A cover-board (4 by 4-foot 1/2-inch square of plywood) will be placed at approximately 100-foot intervals outside the exclusion fence to provide predator protection for small animals that encounter the fence. Each cover-board will be elevated approximately two inches using two attached six-inch wooden blocks. The elevated edge of each cover-board will be placed flush against the outside of the exclusion fence. The cover-boards will be labeled with signage to ensure they are not disturbed.
- Prior to work activities each morning, the qualified biologist will inspect the integrity of the exclusion fencing and the cover-boards and survey around and under construction equipment, materials stockpiles and other work areas for CRLF. If no CRLF are observed, work may proceed.
- Prior to or during construction, if a CRLF, or a frog believed to be a CRLF, is observed at an area that would be affected, work will cease and the qualified biologist will be notified immediately. Work in that area will cease and the animal will be avoided until it has safely left the area of its own accord. In addition, USFWS will be informed of the observation within one working day.
- All trash will be removed from the site daily to avoid attracting potential predators to the site.
- Additional avoidance, monitoring or other measures will be carried out if recommended by USFWS during any subsequent consultation.

With the implementation of this measure, impacts to CRLF from development of the Overlooks Project would be avoided and no impact is anticipated. Consistent with IM 3.2.12 (see above and Appendix A), the campus has consulted with USFWS regarding avoidance of a take and has incorporated the recommendations of USFWS (Cooper 2010) into the proposed project. USFWS has concurred that the project will not result in a take of CRLF because 1) CRLF are not expected to inhabit the project areas during construction, and 2) the Campus has committed to implementation of the avoidance and minimization measures listed above.

San Francisco Dusky-Footed Woodrat

The CLRDP EIR concluded that development under the CLRDP would not result in impacts to dusky footed woodrat, based on the assessment that the envisioned program did not include development in the YLR coastal scrub. However, proposed overlooks D and E would involve removal of small areas of coastal scrub for overlook pads and, for Overlook D, for trail development. Any disturbed areas around the pads and trail would be revegetated and restored after construction, and the area of coastal scrub that would be converted to development is very small and would not represent a significant loss of habitat. Furthermore, no woodrats were observed on the site either during biological surveys for the CLRDP EIR or during updated surveys in July and August 2010 (Biosearch 2010). Nonetheless, as overlook sites D and E are suitable habitat for wood rats, and wood rats are known from other portions of the YLR, vegetation removal and ground disturbance for overlook construction would have the potential to disturb or destroy San Francisco dusky-footed wood rat houses, should they be present. This could result in reduction of the distribution or population success of the wood rats, a potentially significant impact. **Overlooks Project-Specific Mitigation BIO-3**, below, addresses this impact:

Overlooks Project-Specific Mitigation Measure BIO-3: 30 to 60 days prior to the start of construction, a biologist will conduct a pre-construction survey for woodrats. The survey will cover of all areas that will be subject to disturbance in the Overlook D and Overlook E development areas. If no active woodrat houses are found at the Overlook E site, no further mitigation is necessary at that location, as the area is small and the potential for undetected nests is limited.

Irrespective of whether a nest is found at the Overlook D site during the initial survey, a biological monitor will be present during hand-removal of vegetation at this site, and will direct crews to avoid any houses discovered in the dense cover.

If active woodrat houses are found and they can be avoided, the biologist will define an exclusion zone, which shall be erected using a temporary fence that does not inhibit the natural movements of wildlife (such as steel T-posts and a single strand of yellow rope or similar materials).

If woodrats will be affected by construction and relocation is necessary, CDFG will be contacted for approval to live-trap and relocate individuals and create one artificial house for each woodrat house lost.

With the implementation of these measures, the impact of the Overlooks Project on San Francisco dusky-footed woodrats would be less than significant.

b) None of the proposed project sites includes any wetland areas or other sensitive natural communities. No impact would occur.

c) None of the overlook sites is in the vicinity of any riparian area. The site of Overlook A is just within the margin of the CLRDP-designated buffer for wetland W5. Overlook sites D and E are within the boundaries of the YLR, but outside of any wetland buffer. The CLRDP permits the development of public access overlooks and trails within the designated buffers of wetlands and Environmentally Sensitive Habitat Areas (ESHAs). As noted above, the campus wetland delineation was certified by the Corps of Engineers in 2007 and accepted by the Coastal Commission in 2008. Under regulations of the Corps of Engineers, wetland delineations are considered valid for a period of five years. Nonetheless, consistent with CLRDP IMs 3.3.1 and

3.4.4, which require pre-development assessment of wetland and ESHA conditions, a wetland biologist inspected the campus wetlands for evidence of changed conditions, during the summer of 2010 (Huffman 2010). Huffman noted slight changes in the boundaries of wetlands W3 (on the campus Upper Terrace) and W5 (on the campus Lower Terrace). With these minor shifts, the Overlook A location is within the margin of the W5 buffer. The CLRDP allows overlook development within wetland buffers. None of the other overlooks is in close proximity to any wetland or Terrace ESHA or buffer. The proposed project therefore would impinge upon or result in adverse effects to wetlands or other sensitive natural communities.

d) Potential to Interfere with Wildlife Movement

California Red-legged frog

None of the Overlooks Project components is near the CRLF movement corridor along the northern margin of the campus that is designated in the CLRDP. No other wildlife movement corridors have been identified on the campus. The small areas of exclusion fencing around the project construction sites potentially could divert wildlife movement for periods of as much as a few weeks at each construction locale. However, each of the sites is small, and none would entail extensive or continuous fencing over significant movement areas. The project impact to wildlife movement corridors therefore would be less than significant.

Potential to Impede Wildlife Breeding

Nesting Birds

Although all but one of the overlook sites are on the relatively more developed Lower Terrace of the campus, all are within wetland buffers or other areas that include grasses and coastal scrub that could provide suitable habitat for special-status and non-listed native bird species (Biosearch 2010). Development of the overlooks therefore could result in nest destruction through removal of vegetation, and noise and other disturbance during construction could adversely affect nesting birds and potentially result in nest abandonment and interfere with the nesting success of special status and other native birds, a potentially significant impact. The project therefore includes and incorporates a modification of CLRDP EIR Project-Specific Mitigation Measure 4.4-2, **Overlooks Mitigation Measure BIO-4**, which is applicable to construction at overlook sites A, D, E and F, to ensure that construction would not interfere with the reproductive success of special-status or other native birds that might be present in vegetated project areas. Overlook C is an existing developed site that does not include suitable habitat for nesting birds. Only minor work for interpretive sign installation is proposed for this site and there is no potential for impacts to nesting birds from work at this site.

On 1 November 2009, a dead burrowing owl was positively identified by Dr. Dave Casper, UCSC Veterinarian, after it was recovered by a woman walking her dog within the study area (Biosearch 2010). The individual was presumably a migrant or wintering owl. The burrowing owl, which is a California species of special concern, is no longer a regular breeding species in Santa Cruz County, although a small overwintering population is known from the grasslands of the lower main UCSC campus and nearby lands. Burrowing owls are periodically observed on and near the study area during migration or in the winter. Thus, burrowing owls may be present in the campus vicinity at some time of the year. However, no nesting owls have been reported and this part of Santa Cruz County is not considered by California Department of Fish and Game to be within the current breeding range of burrowing owls. Furthermore, brush at the sites of overlooks D and E is too dense to provide suitable burrowing owl habitat, and the overlook A and F sites are in areas that currently receive substantial public visitation, where human activity likely would inhibit use

by burrowing owls even were they present on the campus. No impact to burrowing owls is anticipated from the Overlooks Project.

CLRDP EIR Mitigation Measure 4.4-2 addresses only nesting raptors. Consistent with the federal Migratory Birds Treaty Act, this mitigation is modified for this project, to include the nests of all native birds as well as to special status birds, including raptors.

Overlooks Project-Specific Mitigation Measure BIO-4⁶: UCSC shall ensure that construction activities avoid disturbing nests of ~~raptors~~ special status and non-listed native birds. If feasible, project construction will be scheduled to occur outside of the nesting season. If ground-disturbing activities are scheduled to occur during the breeding season (February 1 through August 31), the following measures ~~are required~~ will be implemented to avoid potential adverse effects on nesting special-status raptors and other birds:

A qualified wildlife biologist will conduct preconstruction surveys of all potential nesting habitat within 300 feet of each work area, within 14 days prior to the start of construction at each site. ~~For burrowing owls, such surveys will follow the most recent CDFG Burrowing Owl Survey Protocol and Mitigation Guidelines.~~⁷

If active ~~raptor~~ nests are found during preconstruction surveys, the project biologist will consult with the California Department of Fish and Game (CDFG) to determine an appropriate buffer radius based on site conditions and species potentially affected, and a no-disturbance buffer acceptable in size to CDFG will be created around active ~~raptor nests and~~ nests to protect nesting adults and their young from construction disturbance of any other special status birds during the breeding season, and maintained until ~~it is determined~~ the project biologist determines that all young have fledged. ~~Raptor~~ Avian nests initiated during construction are presumed to be unaffected, and no buffer is necessary. However, the “take” of any individuals will be prohibited.

If preconstruction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction/restoration period, no further mitigation is required. Trees and shrubs that have been determined to be unoccupied by special-status birds or that are located outside the no-disturbance buffer for active nests may be removed.

With the incorporation of this measure in the project, the potential impact of the Overlooks Project upon nesting birds would be less than significant.

Western Pond Turtle

On 21 May 2008, a dead gravid female western found in wet depression D1, adjacent to wetland W6, near the northern edge of the Middle Terrace. During special status species survey of all campus wetlands and buffers on May 3, 2010, a gravid western pond turtle, a California species of special concern not previously known on the campus, was found at the same location. Since biological surveys of the campus conducted prior to 2002 did not find Western pond turtle on the site, the CLRDP EIR did not consider potential impacts to this species.

⁶ Strikethroughs indicate text deleted from CLRDP EIR Mitigation Measure 4.4-2. Underlines indicated added text.

⁷ Burrowing owls are not known to nest in Santa Cruz County.

Western pond turtles inhabit perennial waters and mate in the spring and summer. The female then travels as much as ½ mile from an inhabited wetland (although more typically she stays within about 300 feet of the water), to lay and bury her eggs, typically in grassland or open scrub, often in south-facing areas. The nest is a pear-shaped hole with an opening of about 2 inches. Females spend considerable time covering up the nest with soil and adjacent low vegetation, making it difficult to find unless it has been disturbed by a predator. The eggs or nestlings remain in the nest during the summer and fall and hatch out the following winter or spring.

Although there are no perennial water sources on the Marine Science Campus, many areas of the campus include open, sun-exposed grasslands that may be suitable nesting habitat that is within ½ mile of wet depression D1. Overlook sites A and F are within ½ mile of the inhabited wetland and include some sparsely vegetated areas. However, both areas are relatively compacted and moderately trafficked at present and represent very marginal nesting habitat. Further, a pond turtle moving from the D1 area would have to cross substantial development barriers to reach either of these sites; there is substantial more suitable habitat much closer to D1, including the undeveloped, open, grassy upper terrace and middle terraces. The dense coastal scrub at Overlook sites D and E does not provide western pond turtle nesting habitat. Because none of the overlook sites is suitable habitat for western pond turtle nesting and all are relatively distant from the one known occurrence on the campus, and because there is abundant suitable habitat much closer to the known occurrence, the potential for western pond turtle to be present at or moving across any of the overlook sites is very low. No impact to western pond turtle nesting or movement is anticipated from implementation of the Overlooks project.

Noise Intrusions into Younger Lagoon Reserve and Terrace ESHAs. CLRDP implementation measures require that noisy activity in the vicinity of the YLR and terrace ESHAs be avoided, to prevent disturbance to wildlife in these habitats. The site of Overlook A is in proximity to Wetland W5, a terrace ESHA. Overlook sites C, D and E are within or in proximity to YLR. While construction would entail some grading and other noisy activity in close proximity to or within the YLR and terrace ESHAs, because the overlooks are of small scale and will each require no more than a few weeks of construction, the impact with respect to disruption of wildlife as a result of construction noise in proximity to Terrace ESHAs and YLR would be short term and temporary. Furthermore, consistent with **CLRDP EIR Mitigation Measure 4.4-2** (above), which is incorporated in the project, any construction during nesting bird season would be preceded by nesting bird surveys to ensure that nesting is not disrupted by construction noise or activity. The impact with respect to adverse effects to wildlife or wildlife nesting therefore would be less than significant.

e, f) Since approval of the CLRDP, the natural areas of the terrace lands of the Marine Science Campus have been incorporated into the YLR, by agreement between the UC Santa Cruz Campus administration and the UC Santa Cruz Natural Reserve System (UCNRS), as an integral part of the YLR. This agreement specifies that the UCNRS will undertake protection, restoration and management of these natural lands in accordance with the CLRDP RMP. The manager of the natural reserve has been consulted about the design of overlooks sited within what is now part of the YLR and his input has been taken into account in overlook design, consistent with the CLRDP IM 3.5.6, listed above and detailed in Appendix A of this document.

Summary

Because the project incorporates all applicable CLRDP IMs and mitigation measures, and with the inclusion of Overlook Project-Specific Mitigation Measures BIO-1, BIO-2, BIO-3 and BIO-4, the

Overlooks Project would not increase the extent to which development under the CLRDP could result in disturbance to sensitive habitat, sensitive natural communities or wildlife corridors, is consistent with the approved CLRDP and the CLRDP EIR, and would not introduce any new significant biological resources impacts, and no changed circumstance or new information is present that would alter the conclusions contained therein. No Project revisions are required. The project includes previously-adopted CLRDP EIR Mitigation Measure 4.4.2 to reduce the potential for impacts to nesting birds to a less-than-significant level, and Overlook Project-Specific Mitigation Measures BIO-1, BIO 2, BIO-3 and BIO-4 have been applied to the project to ensure avoidance of potential impacts to special status plants, CRLF, San Francisco dusky-footed wood rats and nesting birds. The project therefore would not result in any significant or potentially significant biological resources impacts.

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

Relevant Features of the Project

Construction for overlooks A, D, E and F will include some new ground disturbance in relatively undisturbed areas; however, only Overlook D would entail a substantial amount of grading. No deep excavation would be required at any location.

Implementation Measures Incorporated

CLRDP IM 3.9.1 (Construction Monitoring) is relevant to and is incorporated into the project to ensure that impacts to any archaeological or paleontological deposits that might be uncovered during construction are avoided. The full text of the IM is provided in Appendix A of this document.

Previous Analysis

a-d) The CLRDP EIR determined, based on archaeological records search, archaeological survey and paleontological sensitivity assessment, that there are no known historic or archaeological resources on the Marine Sciences Campus and that the potential for encountering paleontological resources during construction is low. Notwithstanding, **CLRDP EIR Project Specific Mitigation Measure 4.5-1**, below, to address human remains that potentially could be inadvertently encountered during construction, and **CLRDP Implementation Measure 3.9.1**, to address the potential to encounter previously undiscovered archaeological or paleontological resources, were adopted as part of the CLRDP for implementation in connection with any ground-disturbing activities. These measures specify the steps to be taken in the event of unexpected discovery of archeological or paleontological resources or human remains. The CLRDP EIR concluded that the inclusion of these measures would reduce potentially significant impacts to undiscovered archaeological and paleontological resources and human remains to a less-than-significant level (CLRDP EIR p 4.5-8).

CLRDP EIR Mitigation 4.5-1: If human remains are discovered during the construction of a development project under the CLRDP, the University and/or its employees shall notify the Santa Cruz County Coroner's Office immediately. Upon determination by the County Coroner that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission, pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and the County Coordinator of Indian Affairs and appropriate Native American consultation shall be conducted, as outlined by PRC 5097.98. Implementation Measure 3.9.1, Construction Monitoring, as identified in the CLRDP, shall also apply. UCSC will be responsible for implementing this mitigation measure.

Project-Level Environmental Review

a-d) Construction of overlooks A, D, E and F would require ground disturbance that potentially could expose previously undiscovered archaeological resources or human remains. No archaeological resources have been discovered in surveys of the campus to date (as reported in the CLRDP EIR) and no human remains have been encountered at the site. Furthermore, only minor grading would be required at most locations, with moderate grading required for Overlook D. The potential for grading at this scale to expose previously unknown buried cultural resources is slight. The site of Overlook D is a sandy dune area on a slope, where the potential for intact archaeological deposits to be present is relatively low. None of the overlook sites would require deep excavation that might have the potential to expose deeper stratum that potentially could be fossil bearing. **CLRDP EIR Project Specific Mitigation Measure 4.5-1** and **CLRDP Implementation Measure 3.9.1** are applicable to the construction of overlooks A, D, E and F and are included in the proposed project. These measures specify the steps to be taken in the event of unexpected discovery of archeological or paleontological resources or human remains. All cultural resources impacts of the proposed project therefore would be less than significant.

Summary

Because the project incorporates all applicable CLRDP implementation measures and CLRDP EIR mitigation measures, as described above, the Overlooks Project would not increase the extent to which the development activities could result in disturbance to cultural resources, is consistent with the CLRDP EIR, and would not introduce any new potential cultural resources impacts, and no changed circumstance or new information is present that would alter the conclusions contained

therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address cultural resource impacts of the Project.

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

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
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e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Relevant Features of the Project

The proposed Overlooks Project consists of construction of three new public access overlooks and improvements to two existing overlooks. The sites of all the overlooks except Overlook A are within 100 feet of the top edge of coastal or Younger Lagoon bluffs. Overlook D would include a shelter to be used as a blind for bird viewing, and several overlooks would include raised earthen berms or platforms to provide increase elevation for views and hard surface for ADA access and use of the overlooks, but none of the overlooks would be occupied, or used more than intermittently. Slope cutting and grading would be required to provide an ADA accessible route to Overlook D and to provide topographic screening of the overlook. Only very minor grading would be required for the other sites. The project is not expected to entail any hydrologic modifications.

Implementation Measures Incorporated in the Project

The project incorporates CLRDP IM 3.7.1 (Bluff Setbacks), which requires that siting and design of new development avoid the need for shoreline armoring. This measure is applicable to Overlook F, which is allowable development within 100 feet of the coastal bluff under the provisions of the CLRDP.

Previous Analysis

a-e) The CLRDP EIR concluded that no significant impacts related to geology and soils would result from implementation of the CLRDP program, which includes the overlooks. The CLRDP EIR determined that standard construction and engineering practices, which require winterizing construction sites and protecting exposed soil during heavy rainfall, would ensure that the implementation of the CLRDP, including the overlooks, would not result in significant erosion impacts (CLRDP EIR p 4.6-23).

Project-Level Environmental Analysis

a-e) The Overlooks Project would include construction of a small bird blind, but this would not be an occupied structure and would be used only intermittently. Small viewing decks would be constructed at some of the other locations. The potential for impacts related to seismic shaking and other geologic hazards from construction and intermittent use of these small structures is slight, since none would be elevated more than a few inches, and none would be occupied. The project would entail ground disturbance, including minor grading at sites A, C, E and F, and more extensive grading to create a pad for and trail to Overlook D. While these activities could result in erosion, standard construction and engineering practices for erosion and storm water control would be implemented, as described in the prior analysis, to ensure that erosion would not occur. As noted in the project description, new plantings would be installed in graded areas as soon as possible after construction and would be mulched to control erosion while vegetation is re-established. Public access overlooks and trails are among the types of development that are allowed within 100

feet of the coastal bluff under the CLRDP, and the project is consistent with CLRDP IM 3.7.1, listed above.

Summary

The project does not have the potential to result in new significant effects related to geology or soils, is consistent with the CLRDP EIR, would not introduce any new potential impacts with respect to geology or soils, and no changed circumstance or new information is present that would alter the conclusions contained therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address geology and soils impacts of the Project.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
6. GREENHOUSE GAS EMISSIONS -- Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Relevant Features of the Project

The proposed Overlooks Project does not include any occupied facilities. Development of the overlooks is not expected to result in any direct identifiable increases in visitors to the campus or average daily population at the campus, except as relates to a general increase over time in campus visitors, as assessed below. Construction would extend over a period of up to four months with a crew of up to 8 persons. To minimize the potential areas of disturbance and limit construction noise, use of heavy equipment would be constrained to a small bobcat, which would be needed primarily for excavation of the Overlook D access trail and pad. The bobcat would be required for only the initial grading efforts at sites A, D, E and (minimally) F, and would be used only intermittently. For Overlook D, a balance between cut and fill is anticipated, such that no significant off-haul of spoils would be required. Construction materials would include wood, concrete and fibar bark material and/ or gravel pavers and gravel.

Implementation Measures Incorporated

No implementation measures relevant to greenhouse gas emissions are identified in the CLRDP.

Previous Analysis

a, b) This section was not addressed in the CLRDP EIR, which was certified prior to the implementation of AB 32.

Project-Level Analysis

a, b) The greenhouse gas emissions of the proposed project would be limited to those resulting from the short term use of one small piece of heavy equipment (a bobcat) to construct new overlooks and paths. The scale of construction would be small. The project also could contribute to the generation of visitor trips to the campus; however, trips that would be generated by the future campus visitors were taken into account in the trip generation and associated air emissions estimates for the CLRDP overall and are within the number of trips analyzed in the CLRDP EIR in relation to CLRDP implementation. The proposed project would not create any new operational sources of greenhouse gases and therefore would not make a cumulatively considerable contribution to global climate change.

Summary

The project does not have the potential to result in significant effects related to greenhouse gas emissions, and is consistent with the CLRDP. The project would not result in any significant or potentially significant impacts with respect to greenhouse gas emissions. No Project revisions or additional mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
7. HAZARDS AND HAZARDOUS MATERIALS – Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
proposed school?					
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Relevant Features of the Project

The proposed Overlooks Project consists of construction of public access overlooks at five sites on the campus' lower terrace. Construction would require limited use of heavy equipment off road to grade pads and paths and to deliver materials for deck, trail and overlook construction to the overlook sites.

Implementation Measures included in the Project

CLRDP Implementation Measure 3.10.1 (Use, Containment and Cleanup of Hazardous Materials), which is relevant to and incorporated in the project, requires the campus to manage the

use, and in the event of spillage, the containment and cleanup of, hazardous materials and petroleum on the UCSC Marine Science Campus.

Previous Analysis

a-c) The CLRDP EIR concluded that, with the implementation measures above included in the project, the increase in hazardous materials use by UC entities under the CLRDP would not result in significant risks because UC Santa Cruz would continue to comply with all federal and state laws regulating the use, storage and disposal of petroleum products and other hazardous materials, such as pesticides (CLRDP EIR p 4.7-17). The CLRDP EIR also determined that the project site is not within ¼ mile of a public or private elementary, middle, or high school and therefore, that there would be no impacts associated with hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or wastes within ¼ mile of a school as a result of the project (CLRDP EIR p 4.7-19).

d) Because the Marine Science Campus is not listed as a contaminated site, with the inclusion of the implementation measures listed above, no significant hazard to the public or the environment would result from construction activities under the CLRDP, including the proposed project (CLRDP EIR p 4.7-19).

e-f) The Marine Science Campus is not located within 2 miles of public airport or private airstrip. No impact with respect to risk from or to air overflight would occur (CLRDP EIR p 4.7-19).

g-h) The CLRDP EIR also determined that development under the CLRDP would not interfere with the City of Santa Cruz Emergency Response Plan or any federal or state emergency response plans, and that the risk of wildland fire at the Marine Science Campus is low because of the nature of the development on the site and its coastal location. The impact would be less than significant and no mitigation is required (CLRDP EIR p 4.7-20).

Project-Level Analysis

a-h) Neither development nor use of the proposed Overlooks Project would entail the use of herbicides or pesticides, or other hazardous chemicals with the exception of petroleum fuels used in a small piece of heavy equipment during construction. CLRDP IM 3.1.10 (above) is included as part of the proposed project, and ensures that appropriate controls are in place during construction such that the use, and in the event of spillage, the containment and cleanup of petroleum complies with federal and state regulations related to the storage, disposal, and transportation of hazardous substances. The project therefore would not create a significant risk to the public or the environment.

Summary

The project includes applicable Implementation Measures, described above, is consistent with the adopted CLRDP and the CLRDP EIR, and would not introduce any new potential impacts with respect to hazards and hazardous materials, and no changed circumstance or new information is present that would alter the conclusions contained therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address hazards associated with the Project.

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

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Relevant Features of the Project

The proposed Overlooks Project consists of development and public use of five overlooks and associated access routes on the campus' lower terrace. As described under Geology and Soils, above, the project would require minor grading at three sites and more extensive grading using a small bobcat at one site, Overlook D, to provide an ADA-accessible path and pad. Improvements at one site, existing Overlook C, would not entail any grading. The project is not expected to result in hydrologic modifications. Overlook paths and pads would be surfaced with pervious material that would not concentrate or generate new storm water runoff. The roofed bird blind at Overlook D, the only structure included in the proposed project, would produce a small amount of storm water runoff, but this would be captured and infiltrated adjacent to the structure, through use of a vegetated infiltration trench reinforced with rock, along the drip line of the blind roof. Areas around overlooks and along trails that would be subject to grading would be protected from runoff during construction, consistent with construction storm water best management practices, and revegetated immediately upon completion of construction, to ensure that erosion is avoided, as described in the project description.

Implementation Measures Incorporated

CLRDP implementation measures **7.1.1 (Management of Stormwater and Other Runoff)** and **7.1.13 (Permeable Hardscape)** are applicable to and included in the proposed Overlooks Project. IM 7.1.1 requires the use of Low Impact Development and Best Management Practices with

respect to storm water in the design and development of Marine Science Campus Projects. IM 7.1.13 requires the use of permeable materials for new hardscape on the campus wherever practicable. The full text of these measures is included in Appendix A of this document.

Previous Analysis

a-j) The CLRDP EIR analyzed the potential impacts on hydrology and water quality that could result from development under the CLRDP, including changes to runoff quantities and patterns and new impervious surfaces such as rooftops and parking lots that accumulate sediments and other contaminants. The CLRDP EIR concluded that implementation of the CLRDP, including the Overlooks, would not result in adverse effects to water quality, due to the protections provided by the water quality policies and implementation measures included in the CLRDP (CLRDP EIR p 4.8-25). The project would not rely on groundwater supplies. The increase in impervious surfaces associated with implementation of the CLRDP would not substantially reduce groundwater recharge because, under CLRDP policies and implementation measures, the development of new impervious surfaces in any one area is limited and most runoff from development will be infiltrated in local catchments. The CLRDP therefore would not adversely affect groundwater at the site (CLRDP EIR p 4.8-27). The stormwater management and water quality measures provided in the CLRDP reduce the potential for erosion, siltation and flooding to ensure that impacts related to additional stormwater flows are less than significant (CLRDP EIR p 4.8-30, -32). The stormwater concept plan included in the CLRDP requires calculation of the potential for increased peak flows during the 25-year storm event and of detention volume required to maintain discharge flows to existing rates and volumes, and mandates that stormwater facilities be designed to capture such flows. For these reasons, the potential for impacts from with increased runoff associated with full implementation of the CLRDP was determined to be less than significant (CLRDP EIR p 4.8-34). The Marine Science Campus is not in a 100-year flood zone. Development at the site would not place people or structures at risk for flooding. Due to the 40-foot elevation of the campus above ocean level, the risk of flooding by ocean tides or tsunamis is negligible. The site is flat and would not be subject to mudflow (CLRDP EIR p 4.8-36, -37).

Project-Level Analysis

a-j) The Overlooks Project would develop overlook pads and associated access routes, which would entail minor grading at three sites and more substantial cuts and grading at one site. One site would not require any grading. Surfaces exposed by grading would be protected from storm water during construction and areas along trails and around the overlooks where vegetation might be disturbed would be replanted upon conclusion of construction with plants grown from locally collected seed. Trail and overlook pads would be surfaced in fully pervious materials, and storm water from the roof of the bird blind structure at overlook D (the only new impervious surface) would be captured in a vegetated infiltration trench along the structure's drip line, as detailed in the project description. As a result, consistent with CLRDP IM 7.1.1 and CLRDP IM 7.1.13, the project would not result in increased in storm water runoff. During construction all exposed soils would be protected from storm flows, using erosion control best management practices. These project elements would ensure that the project would not result in erosion or siltation that could have adverse effects upon water quality.

Summary

The project does not have the potential to result in new significant impacts related to hydrology or water quality, is consistent with the CLRDP EIR, and would not introduce any new potential hydrology or water quality impacts, and no changed circumstance or new information is present

that would alter the conclusions contained therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address hydrology or water quality impacts of the Project.

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

Relevant Features of the Project

The proposed Overlooks Project consists of development of five public access coastal and wetlands overlooks, as required by and described in the Coastal Long Range Development Plan. None of the proposed work would be located near the border of the MSC with the adjacent Younger Ranch. The project would include planting of a tall screen of trees and shrubs to create a visual buffer between Overlook E and the existing NOAA building. Overlook D would include a blind for bird viewing and has been designed to minimize visibility of the site from Younger Lagoon. The other overlooks include vegetal screening to allow public observation of views and wildlife, while minimizing human intrusions and visual intrusions from vehicle traffic and nearby buildings into wildlife habitat. The overlooks would not include night lighting.

Implementation Measures and Mitigation Measures Incorporated

Relevant CLRDP implementation measures are identified in other sections of this Initial Study.

Previous Analysis

a-c) The University generally is exempt from local land use regulation; however, the CLRDP EIR includes a discussion of the consistency of the CLRDP with the City of Santa Cruz General Plan/Local Coastal Program (LCP). In addition, the CLRDP EIR analyzed potential conflicts with a Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP), compatibility with neighboring land uses, and consistency with the California Coastal Act.

The CLRDP EIR concludes that implementation of the CLRDP, including the Overlooks, would be consistent with the City of Santa Cruz General Plan/LCP and the California Coastal Act, and that there is no HCP or NCCP that applies to the Marine Science Campus or vicinity. The agricultural buffers and limits on the sizing and placement of utility lines in the CLRDP would ensure that development under the CLRDP would be compatible with neighboring agricultural uses and would be consistent with City and County General Plan/LCP policies. Therefore, the CLRDP EIR determined that development under the CLRDP would not result in any significant project or cumulative impacts with respect to land use (CLRDP EIR p 4.9-10 through -14).

Project-Level Analysis

a-c) The Overlooks Project implements public access improvements that are a required element of the CLRDP. All of the proposed work areas are within areas that the CLRDP designates either as development zones (Research and education, mixed use) or ESHA buffers (CLRDP Figure A.3). Public access facilities such as trails and overlooks are allowed in both of these zones.

The proposed overlook designs rely on the use of natural materials, screens of native vegetation, and features that are designed to be visually unobtrusive and to blend with the natural landscape, consistent with CLRDP siting and design criteria, as described in CLRDP Chapter 9. The proposed project would not change or result in changes to any existing land use. The CLRDP permits (and requires) development of public access overlooks and trails within wetland buffers and, with access controls, within the Younger Lagoon Reserve. As described above and in the CLRDP and CLRDP EIR, the overlooks have been designed and sited to minimize human intrusion into and visibility from within sensitive wildlife habitat, while maximizing visual coastal access opportunities for the public and providing opportunities for wildlife viewing.

Summary

The project does not have the potential to result in new significant land use impacts, is consistent with the adopted CLRDP and the CLRDP EIR, and would not introduce any new potential land use impacts, and no changed circumstance or new information is present that would alter the conclusions contained therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address land use impacts of the Project.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
10. NOISE -- Would the project result in:					
a) Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
ambient noise levels in the project vicinity above levels existing without the project?					
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (including construction)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Relevant Features of the Project

The proposed Overlooks Project consists of development of overlooks and associated access routes on the campus' lower terrace. Overlooks C, D and E are sited within the Younger Lagoon buffer. The Overlook C site is also adjacent to existing marine mammal pools within the Long Marine Lab research facility. Overlook A is sited outside of but near the buffer of Wetland W5. Construction would require about four months in total. The largest piece of equipment that would be used for construction would be a small bobcat for use in initial and/ or intermittent grading during a portion of the construction period, primarily for the Overlook D trail and pad. Construction of overlooks A, E and F would entail minor, very short term grading (a few days or less at each site) to create a viewing pad. Overlook D would include construction of a small 3-sided, roofed bird blind. Construction of the blind would be accomplished with hand-held powered and manually-operated tools.

Implementation Measures and Mitigation Measures Incorporated

The following CLRDP Implementation Measures and mitigation measures are relevant to and included as part of the Overlooks Project:

CLRDP Implementation Measure 3.4.1 (Additional Measures to Protect Habitat Areas), which regulates lighting, access and sighting of development to protect nearby sensitive habitat, was taken into account in the siting and design of Overlooks Project public access overlooks and trails. **CLRDP IMs 3.4.2 (Noise Intrusion into Terrace ESHA) and 3.4.3 (Noise Intrusion into YLR)** provide measures to limit operational noise in sensitive habitats. **IM 3.4.3** specifies that noise in excess of 60 dBA at the boundary of the YLR shall be avoided and mitigated. Overlooks

and access trails are among the development permitted within these buffer areas, under the CLRDP. The full text of these measures is included in Appendix A to this document. **CLRDP EIR Project Specific Mitigation Measure 4.11-4**, detailed below, provides construction period noise controls.

Previous Analysis

a-f) The CLRDP EIR analyzed whether operation of the Marine Science Campus under the CLRDP has the potential to result in excessive noise or expose persons to excessive noise from trains, traffic, and operation of campus facilities; the potential that implementation of the CLRDP could generate or expose persons to substantial ground-borne vibration from construction activity and from train activity; whether construction activities associated with the development of new buildings and facilities on the Marine Science Campus under the CLRDP would generate noise that could expose nearby receptors to elevated noise levels; and whether implementation of the project would expose people to airport noise. The CLRDP EIR determined that all of these impacts either would be less than significant, or would be reduced to less-than-significant levels with mitigation that is included in the project (CLRDP EIR 4.11-27).

Project-Level Analysis

a, b, c) The Overlooks Project is consistent with overlook siting and design as described in the CLRDP and CLRDP EIR and specified in CLRDP Implementation Measures 3.4.1 and 3.4.2. During operation, the overlooks would be used for passive, generally quiet recreation, and would not be expected to result in any operational noise in excess of acceptable levels within or adjacent to the YLR, on any area of the Marine Science Campus, or at any off-campus sensitive receptors. Construction would not entail the use of any vibratory equipment such as jackhammers or piledrivers, and would not be expected to result in any noticeable groundborne noise or vibration.

d) With respect to short term and temporary noise, CLRDP IM 3.4.3, listed above, requires that 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, which is considered to be a sensitive receptor. IM 3.4.1 requires that noise within 100 feet of a terrace ESHA should be minimized. Overlook A is near the edge of the buffer of a terrace ESHA, Wetland W5, but is more than 100 feet from the edge of the buffer. Overlook sites C, D and E are within or immediately adjacent to the YLR. Construction work at Overlook C would be confined to interpretive sign installation and associated noise would be minimal. A small “bobcat” (grader/excavator) would be used for construction of Overlook D and the associated trail, and may also be needed for minor grading at Overlooks E and A. A standard grader/excavator may produce noise at volumes of as much as 75 dBA at a distance of 50 feet. Smaller and less noisy pieces of equipment capable of the required work may be available. Nonetheless, construction equipment noise at Overlooks D and E, which are within the Younger Lagoon buffer, will exceed 60 dBA. The construction of Overlooks D and E therefore could result in potentially significant noise impacts within the YLR. The potential impact would not be significant to potential human receptors, as noise at any one location and from the project overall would be of short duration and would not occur in close proximity to any occupied facility. However, the anticipated construction noise potentially could result in short term disturbance to noise-sensitive wildlife that might be present in the terrace ESHA around W5 and in YLR.

CLRDP EIR Project Specific Mitigation Measure 4.11-4 is applicable to construction at sites D and E and is included in the Overlooks Project to address this impact.

CLRDP EIR Project Specific Mitigation Measure 4.11-4: Prior to the initiation of construction, the University shall approve a construction noise mitigation program including but not limited to the following:

- The University shall require that construction activities be limited to a schedule that minimizes disruption to noise-sensitive uses on the project site and in the vicinity through implementation of the following:
 - Construction activities during daytime and evening hours (7:00 AM to 10:00 PM) shall not occur within 150 feet of sensitive receptors, when feasible. Construction activities within 500 feet of sensitive receptors activities shall not occur during nighttime hours (10:00 PM to 7:00 AM).
 - Whenever possible, academic and administrative staff, as well as residents who will be subject to construction noise, shall be informed one week before the start of each construction project.
 - Loud construction activity as described above within 150 feet of an academic or residential use shall, to the extent feasible, be scheduled during holidays, spring break, or summer break.
- To reduce noise impacts from construction, the University shall require that construction contractors muffle or otherwise control noise from construction equipment through implementation of the measures below.
 - Internal combustion engines used for any purpose at the construction sites shall be equipped with a muffler of a type recommended by the manufacturer.
 - Equipment used for construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible);
 - Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. Such mufflers can lower noise levels from the exhaust as much as 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures such as using drilling equipment rather than impact equipment shall be implemented whenever feasible.
 - Stationary noise sources shall be located as far from sensitive receptors as feasible. If they must be located near sensitive receptors, they shall be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds.
- The University shall require that a temporary wooden wall be placed around construction activity areas that are within 150 feet of sensitive receptors to provide additional noise attenuation, where feasible. The wall should impede the direct line of sight between the noise sources and sensitive receptors.

- The University shall require that construction-related material haul trips access the campus via Natural Bridges Drive and Delaware Avenue in order to minimize noise exposure to residential land uses.
- The University shall identify potential noise impacts related to construction of long-term projects proposed under the CLRDP, and develop project-specific noise mitigation measures as may be necessary. The University shall take into account the location of the five campus facilities that will have been developed in the near-term as well as off-campus developments nearby. The analysis shall also take into account the sequence in which long-term projects are to be constructed and shall identify appropriate mitigation, as may be required. These future facilities may be sensitive receptors or may act as barriers to noise approaching other sensitive receptors.

In compliance with the final item of the mitigation measure above, **Overlooks Project-Specific Mitigation NOIS-1**, set forth below, also is included in the project to minimize construction noise to the greatest extent feasible:

Overlooks Project-Specific Mitigation NOIS-1: The least noisy construction equipment capable of carrying out the required work will be used for brush clearing, grading and excavation necessary for construction of overlooks A, D and E. Smaller and efficiently-muffled equipment will be used whenever feasible. In addition, work shall be done in a fashion that minimizes the number of times noisy equipment must be started up and the duration of operation of noisy construction equipment.

With the incorporation of this mitigation measure, noise associated with project construction would be reduced, but almost certainly would still exceed 60 dBA at some locations within the reserve. This potentially could be disturbing to birds, in particular to nesting birds. However, as required by **CLRDP EIR Mitigation Measure 4.4-2**, project construction would be preceded by a nesting bird survey, and if any nesting birds are present construction at that location would be postponed until birds have fledged. Because the construction of the overlooks is required by and included in the CLRDP, and the CLRDP concluded that implementation of the CLRDP including development of the overlooks would not result in significant noise impacts; because construction noise would be temporary and of brief duration; because the anticipated noise would not be significantly different from that of agricultural operations on the west side of the YLR; and with the inclusion of nesting bird protections, the impact of construction noise on YLR wildlife would be less than significant.

e, f) The analysis presented in the CLRDP EIR with respect to air traffic noise is applicable to this project. The project therefore would not result in significant noise impacts.

Summary

The project is consistent with the adopted CLRDP and the CLRDP EIR, and would not introduce any new potential noise impacts, and no changed circumstance or new information is present that would alter the conclusions contained therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address noise impacts of the Project.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
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11. POPULATION AND HOUSING -- Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Relevant Features of the Project

The proposed Overlooks Project consists of development of or improvements to public access overlooks to provide the public with visual access to the ocean coast, Marines Science Campus wetlands and Younger Lagoon Reserve. The project would not result in a measurable increase in the average daily population of the campus except as part of the generalized growth in public use of the site that was anticipated in the CLRDP. Maintenance of the overlooks and associated access routes would require a minor increase in grounds staff time (less than 0.1 full time equivalent staff person) would not involve any new faculty or students. Construction work for all the overlooks is anticipated to require about 4 months by a crew of up to 8 persons.

Implementation Measures and Mitigation Measures Incorporated

The CLRDP does not identify any implementation measures relevant to population and housing that are applicable to the analysis of the proposed project.

Previous Analysis

The CLRDP EIR analyzed the potential that development under the CLRDP could directly or indirectly induce substantial population growth, result in a concentration of population, or displace housing or substantial numbers of people. The EIR concluded that the project would not result in any significant impacts with respect to population or housing, and no mitigation was required (CLRDP EIR 4.12-22, -24).

Project-Level Analysis

The Overlooks Project is not anticipated to result in measurable growth of average daily population on the campus, except as part of the generalized slow background growth in campus visitor population and necessary staff to maintain upkeep of new structures and infrastructure that was anticipated in the CLRDP. The short term nature of the work would not be likely to draw

permanent workers to the area who would contribute to the demand for housing. It is assumed that temporary short term laborers likely would be available in the local work force. Therefore, the project would not displace any housing or people, contribute to demand for new housing, or result in any significant population increase.

Therefore, consistent with the adopted CLRDP and the CLRDP EIR, and would not introduce any new potential population impacts, and no changed circumstance or new information is present that would alter the conclusions contained therein. The prior environmental analysis is sufficient and comprehensive to address the potential population and housing impacts of the Project. No Project revisions or additional mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
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12. PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Create other public service impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Relevant Features of the Project

The proposed Overlooks Project consists of development of or improvements to public overlooks to provide the public with visual access to the ocean coast, Marines Science Campus wetlands and Younger Lagoon Reserve. The project would not result in a measurable increase in the average daily population of the campus except as part of the generalized growth in public use of the site that was anticipated in the CLRDP. Maintenance could require a minor increase in Grounds staff time (<0.1 full time equivalent) and would not involve any new campus faculty or students. Construction work for all the overlooks is anticipated to require about 4 months by a crew of up to 8 persons.

Implementation Measures and Mitigation Measures Incorporated

The CLRDP does not identify any implementation measures relevant to population and housing that are applicable to the analysis of the proposed project.

Previous Analysis

a-f) The CLRDP EIR analyzed whether development under the CLRDP EIR, including development and use of the proposed Overlooks, would generate demand for fire protection or police service or schools that would require the construction of facilities whose construction could have significant adverse environmental effects. The CLRDP EIR determined that the project would not result in any significant project-level or cumulative impacts in these areas (CLRDP EIR 4.13-7 and -9).

Project-Level Analysis

The Overlooks Project would not result in an increase in population greater than that analyzed in the CLRDP EIR or the construction of new structures requiring fire protection and police services.

Summary

The Project does not have the potential to result in new significant impacts related to public services, is consistent with the adopted CLRDP and the CLRDP EIR, and would not introduce any new potential public service impacts, and no changed circumstance or new information is present that would alter the conclusions contained therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address public services impacts of the Project.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
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13. RECREATION --

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Relevant Features of the Project

The proposed Overlooks Project would provide public access viewpoints, access trails and educational signage on the Marine Science Campus consistent with the public access requirements of the CLRDP (as described in the implementation measures listed below). The project would not increase campus staffing or student or faculty populations and is not expected to result in a

measurable increase in public visitor population beyond the general slow growth in visitors over time assumed in and analyzed in the CLRDP and CLRDP EIR. Construction would require a work crew of about 8 persons for about 4 months.

Implementation Measures and Mitigation Measures Incorporated

The project complies with and incorporates the following CLRDP Implementation Measures, the full texts of which are presented in Appendix A to this document:

The Overlooks Project incorporates and implements the provisions of **IM 3.6.2 (Visual Access to YLR)**, which requires provision of some unescorted public visual access to YLR through overlooks, such as would be provided by Overlook E; **IM 6.1.4 (Public Access Overlooks)**, which requires that the University develop and maintain at least six overlooks to provide public visual access to natural resources, as detailed in the CLRDP; **IM 6.1.7 (Interpretive Information)**, which requires installation of easily accessible interpretive displays, signs, and facilities such as access ways, trails, and overlooks; **IM 6.2.4 (Access to Resource Protection Buffer Areas)**, which provides for limited public access (as through overlooks C and D, which provide escorted access) to particularly sensitive resource areas; **IM 6.2.5 (Access to Coastal Bluffs)**, which provides for protection of and access to coastal bluffs, such as is provided by the overlooks project, at Overlook F; and relevant provisions of **IM 6.2.10 (Public Access Signage)**, which lays out requirements for public informational signage.

Previous Analysis

a-b) The CLRDP EIR analyzed the potential for construction of recreational facilities on the Marine Science Campus to result in environmental impacts, and the potential that development under the CLRDP would increase the use of existing neighborhood and regional parks or other recreational resources such that substantial physical deterioration of those facilities would occur or be accelerated. The EIR determined that, with the policies, implementation measures and mitigation measures included in the CLRDP, the potential impacts of recreational facility development would be less than significant.

Project-Level Analysis

a-b) The Overlooks Project would not result an increase in population greater than that analyzed in the CLRDP EIR, or in an associated demand for recreational facilities. Furthermore, the project provides recreational overlooks, as required by the CLRDP, and also includes CLRDP interpretive signage that would enhance the experience of recreational users of campus trails. Signage also will be installed at existing parking areas on the campus that are available for public coastal access parking, to indicate the locations of trails and overlooks. Fencing and vegetal screens installed to screen overlook users from the view of wildlife and restrict access into sensitive habitats also is consistent with the CLRDP, and would not hinder visual access and wildlife viewing for recreational visitors. The project includes mitigation measures to protect special status wildlife, to ensure that any cultural resources that might be encountered are appropriately treated, and to limit construction noise in sensitive habitats, which would reduce the impacts of the development of these recreation facilities to less-than-significant levels, as discussed in prior sections of this document.

Summary

The Overlooks Project does not have the potential to result in new significant impacts related to recreation or contribute to any previously-identified impacts. Accordingly, the project is consistent with the adopted CLRDP and the CLRDP EIR, and would not introduce any new potential

recreational impacts, and no changed circumstance or new information is present that would alter the conclusions contained therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address the impacts of the Project on recreation.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
14. TRANSPORTATION/ TRAFFIC -- Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycles paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with applicable policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Relevant Features of the Project

The proposed Overlooks Project consists of development of or improvements to public access overlooks to provide the public with visual access to the ocean coast, Marines Science Campus wetlands and Younger Lagoon Reserve. The project would not result in a measurable increase in the average daily population of the campus except as part of the generalized growth in public use of the site and minor increase in staff (<0.1 full time equivalent) for maintenance of new facilities that was anticipated in the CLRDP; and would not involve any new faculty or students. Construction work for all the overlooks is anticipated to require about 4 months by a crew of up to 8 persons.

Implementation Measures and Mitigation Measures Incorporated

Under **CLRDP IM 3.12.4 (Air Quality and Energy Conservation through Alternative Transportation)** the University commits to promoting walking, bicycle and other alternative transportation use for the Marine Science Campus, and under **IM 3.12.5 (Air Quality and Energy Conservation through Transportation Demand Management)** the University is to encourage alternatives to automobile use for site users and visitors. These measures are incorporated into the Overlooks Project, which includes pedestrian trails and bicycle parking.

Previous Analysis

a-g) The CLRDP EIR analyzed the potential impacts of vehicle trips generated by development under the CLRDP on intersection operations and on the environment on nearby residential street segments, parking demand, traffic hazards, emergency access, and alternative transportation. The analysis concluded that cumulative development of the then-envisioned near term projects, as well as cumulative development of the CLRDP program over the long term, would contribute to significant cumulative impacts at several intersections in the City of Santa Cruz (CLRDP EIR p 4.15-33 , -44, -67 and -75), and would increase the potential for pedestrian conflicts with vehicles and bicycles along the north side of Delaware Avenue where there is no sidewalk, a less-than-significant impact, even prior to mitigation (CLRDP EIR p 4.15-37). Through CLRDP EIR Mitigation Measures 4.15-1, 4.15-3, 4.15-4, 4.15-5 and 4.15-6, the University committed to contribute its fair share of the cost of intersection improvements, which would reduce traffic delays and improve intersection levels of service. Under Mitigation Measures 4.15-2, UCSC committed to pay a fair share of the cost of construction of a pedestrian path along a section of Delaware Avenue near the campus entrance. Even with the implementation of mitigation measures, however, it was concluded that intersection impacts would remain significant and unavoidable with the full implementation of the CLRDP because additional approval outside of the jurisdiction of the University would be needed for the improvements, and some identified improvements might not be feasible.

Project-Level Analysis

a-g) The Overlooks Project would not result an increase in population or related traffic greater than that analyzed in the CLRDP EIR and would not make a quantifiable contribution to the peak hour trips that contributed to the intersection level of service impacts identified in the CLRDP EIR, since the project does not entail any new faculty, staff or student population on the campus. The small number of daily trips generated by the 8-person work crew would be well within the range of current daily variability, and would not result in a detectable change in levels-of-service at any intersection, or a cumulatively considerable contribution to any of the traffic impacts previously identified; furthermore, construction-related traffic would be temporary and of short duration (4 months). Furthermore, of the near-term projects considered in the CLRDP EIR, only the Center for

Ocean Health Addition is likely to be developed in the near term, and the anticipated trip generation of that project would not result in any significant impacts. The project would entail only very limited use of heavy equipment and would not result in activity on campus roadways that could impede emergency access. The project would improve pedestrian access to view points and could encourage pedestrian travel on the campus.

Summary

The Overlooks Project does not have the potential to result in new significant impacts related to transportation, nor would it make a cumulatively considerable contribution to any significant cumulative impact. The project is therefore consistent with the adopted CLRDP and the CLRDP EIR, and would not introduce any new potential traffic impacts, and no changed circumstance or new information is present that would alter the conclusions contained therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address traffic impacts of the Project.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
15. UTILITIES AND SERVICE SYSTEMS Would the project:–					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?					
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with applicable federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Create other utility and service system impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Relevant Features of the Project

The proposed Overlooks Project consists of development of or improvements to five public access overlooks on the Marine Science Campus. Establishment of vegetation plantings, in particular around overlooks A and D, would require temporary irrigation, water demand for which cannot be quantified at this time. None of the overlooks would include lighting, permanent irrigation or other water use, or entail the use of any other utilities.

Implementation Measures and Mitigation Measures Incorporated

None of the implementation measures identified in the CLRDP with respect to utilities is relevant to the proposed project.

Previous Analysis

The CLRDP EIR estimated that water demand with full implementation of the CLRDP would represent 0.45 percent of system demand for the SCWD service area at the time the EIR was prepared. This new demand would not require new or expanded water entitlements or construction of new or expanded water supply facilities. Because it is not known whether the entire water supply deficit will be adequately addressed, and whether all environmental impacts associated with the City's water supply projects could be reduced to a less than significant level, the CLRDP EIR concludes that the impact would be significant and unavoidable (CLRDP EIR p 4.16-18). The CLRDP EIR did not identify any other significant utility impacts or related mitigation measures.

Because the Overlooks Project would not entail any other utility demand, the analysis of other utilities presented in the CLRDP is not relevant to this project.

Project-Level Analysis

The Overlooks Project would not entail any utility use or result in the extension of any existing utility lines except for minor, temporary and short term water use for re-establishment of vegetation in graded areas.

Summary

The Project therefore does not have the potential to result in new significant impacts related to utilities, and is consistent with the adopted CLRDP and the CLRDP EIR, and would not introduce any new potential utility impacts, and no changed circumstance or new information is present that would alter the conclusions contained therein. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address utility impacts of the Project.

16. MANDATORY FINDINGS OF SIGNIFICANCE Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

16. MANDATORY FINDINGS OF SIGNIFICANCE Issues	Potentially Significant Impact	Project Impact Adequately Addressed in CLRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
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d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Relevant Features of the Project

The proposed Overlooks Project consists of improvements to or development of five overlooks, associated access trails, and associated interpretive signage at sites overlooking Younger Lagoon, the Pacific Ocean and a wetland on the Marine Science Campus. The project would not result in population increases at the campus and would not entail the use of any utilities. No hydrological modifications and only minor topographic modifications are proposed. The project would be constructed with a small bobcat excavator/grader and would require a work crew of up to 8 persons, over about a 4 month period.

Previous Analysis

a) As discussed in the sections on *Biological Resources* and *Cultural Resources*, above, the CLRDP EIR determined that implementation of the CLRDP, including the development of the overlooks, would not, with the specified CLRDP implementation and mitigation measures that are incorporated in and applied to the project, result in any significant adverse effects on sensitive plant or wildlife species, sensitive habitat, or archaeological or paleontological resources or human remains (CLRDP EIR Sections 4.4, 4.5).

b-d) The CLRDP EIR identified the following significant and unavoidable impacts associated with full implementation of the CLRDP (CLRDP EIR Section 4.15 and 4.16):

CLRDP Impact Number	Impact
4.15-1	Impact associated with increased short-term traffic at Mission and Bay.
4.15-3	Impact associated with increased short and long-term traffic at Mission and Bay.
4.15-4	Impact associated with increased short and long-term traffic at Mission and Chestnut.
4.15-5	Impact associated with increase in total traffic at Mission and Bay.
4.15-6	Cumulative impact associated with decreased levels of service at six study intersections.
4.16-1	Cumulative impact associated with demand for a new water supply source.

The CLRDP EIR determined that all other environmental impacts of the CLRDP would be less than significant with mitigation (CLRDP EIR, Table 2-1).

Project-Level Analysis

a) As discussed in the sections on *Cultural Resources*, above, the refinements of the Overlooks Project would not result in new significant impacts on prehistoric resources, or a substantial

increase in the severity of previously identified significant effects on these resources. As discussed in the sections on *Biological Resources* and *Noise*, above, the project includes CLRDP IMs, CLRDP Project-Specific Mitigation Measures and Overlooks Project-Specific Mitigation Measures. These would ensure that potentially significant impacts on special-status plants, nesting birds, CRLF, western pond turtles and San Francisco dusky-footed woodrats would be avoided or reduced to less-than-significant levels.

b-d) The implementation of the Overlooks Project would not result in a noticeable increase in vehicle trips or long term or permanent water demand on the campus. Furthermore, the Campus anticipates that none of the near-term projects analyzed at the project level in the CLRDP EIR will be constructed or under construction by 2010 as anticipated in the EIR. As a result, the previously-identified significant unavoidable cumulative traffic impact of cumulative near-term CLRDP development upon traffic congestion and intersection LOS has not been triggered, and the Overlooks Project would not make a cumulatively considerable contribution to the impact. .

The project would include a minor, temporary, short term increase in water demand, for irrigation to establish plantings in graded areas, but not result in any permanent increase in water demand from the campus. Therefore, the Overlooks Project would not contribute to the project or cumulative water supply impacts identified in the CLRDP EIR.

XI. SUPPORTING INFORMATION SOURCES

Biosearch Associates. Letter report by Mark Allaback and Tom Mahony, Biosearch Associates, to Sally Morgan, UCSC Physical Planning and Construction: *Biotic Assessment of the Overlooks Project, UC Santa Cruz Marine Science Campus*. August 20, 2010. Santa Cruz.

California Coastal Commission Findings on UCSC's CLRDP. December 2007

California Coastal Commission Findings on UCSC's CLRDP. April 2008.

California Coastal Commission Staff Report on UCSC's CLRDP. November 2007.

California Coastal Commission Staff Report on UCSC's CLRDP. March 2008.

Cooper, Douglass. Letter from US Fish and Wildlife Service to Sally Morgan, UCSC PP&C, regarding potential effects of Overlooks project on sensitive species. September 23, 2010.

Glinka, Kim, Ecosystems West. Personal communication to John Barnes and Dean Fitch regarding CA red-legged frog and western pond turtle survey findings. May 10, 2010.

Howard, Elizabeth, Younger Lagoon Reserve Field Manager. Personal communication to Sally Morgan, UCSC Physical Planning and Construction, regarding negative findings on special status plants on campus terraces. June 2010.

Huffman, Terry. Personal communication to Sally Morgan, UCSC PP&C, reporting results of survey updating wetland conditions. Report in preparation. August 2010.

University of California Santa Cruz (UCSC) Final Coastal Long Range Development Plan (CLRDP), December 2008

UCSC Marine Science Campus CLRDP Draft Environmental Impact Report, January 2004

UCSC Marine Science Campus CLRDP Environmental Impact Report Addendum #1: Proposed Revisions to the CLRDP. November 2006

UCSC Marine Science Campus CLRDP Environmental Impact Report Addendum #2: Specific Resource Plan Phase 1A. July 2010.

XII. INITIAL STUDY PREPARERS

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XIII. MITIGATION MONITORING AND REPORTING PROGRAM

CEQA requires that a Lead Agency establish a program to monitor and report on measures adopted as part of the environmental review process to mitigate or avoid significant effects on the environment. The Mitigation Monitoring and Reporting Program (MMRP) laid out in the table below is designed to ensure the appropriate implementation of 1) CLRDP-required Implementation Measures (“CLRDP IM”s) that are applicable to the proposed project; 2) CLRDP EIR Project-Specific Mitigation Measures relevant to the project; and 3) mitigation measures identified in the Initial Study analysis above (“Overlooks Project-Specific Mitigation Measures”). The implementation of this suite of measures will avoid or minimize environmental effects of development of the Overlooks Project.

The MMRP below describes monitoring procedures, monitoring responsibilities, and monitoring schedules for mitigation measures identified in the Initial Study analysis of the environmental as well as the measures included in the CLRDP and the CLRDP EIR to avoid or minimize environmental effects.

All monitoring actions, once completed, will be reported (in writing) to UC Santa Cruz Physical Planning and Construction, which will maintain mitigation monitoring records for the proposed project. The MMRP will be considered by The Chancellor of UCSC in conjunction with project review and will be included as a condition of project approval.

The components of this table are addressed briefly below:

Mitigation Measures: The mitigation measures in the MMPs are taken verbatim from the Final EIR, and the numbers assigned the mitigation measures are the same as those presented in the Final EIR.

Mitigation Timing: Identifies the timing for implementation of each action.

Monitoring and Reporting Responsibility: Identifies the UCSC office and/or project personnel responsible for undertaking the required action and reporting on the implementation of the measure.

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
Agricultural Resources				
CLRDP EIR General Mitigation Measure 4.2-1	<ul style="list-style-type: none"> UCSC will install a four-foot-high landscaped fence along the Younger Ranch property line that will extend from the bend in the existing access road, northward along the property line. The fence will be sited and constructed to have a uniform gap of 16 inches between a smooth wire defining the bottom of the fence and the ground. This will assure that wildlife passage can continue to occur through the fence. UCSC will install tree and shrub landscaping approximately 25 feet inside the fence (to minimize shading effects on Younger Ranch crops), consisting of an indigenous, drought-resistant mosaic of mid-level shrubs and taller trees to help dissipate dust generation from the west. Tree and shrub choices will be made in conjunction with the landscape architect experienced in the use of native plants and vegetation. Trees and shrubs will be selected for non-invasive character. Native blackberries are recommended, as they would serve as an access barrier. UCSC will install the fence and landscaping prior to groundbreaking of any CLRDP project components. 	Consult with adjacent land owner on fence design and ensure that fence is installed as required.	PP&C AND YLR Manager	Prior to groundbreaking for Overlooks construction
	Air Quality			
CLRDP EIR Project Specific Mitigation Measure 4.3-1	<p>The University shall require construction contractors to implement a dust abatement program to reduce the contribution of project construction to local respirable particulate matter concentrations. Elements of this program shall include the following as appropriate for each project:</p> <ul style="list-style-type: none"> Water all active construction areas at least twice daily. Frequency shall be based on the type of operation, soil, and wind exposure. Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). 	<p>Select measures appropriate to Overlooks Project and include in construction contract specifications.</p> <p>Monitor throughout construction to verify implementation.</p>	<p>PM</p> <p>PM</p>	<p>Prior to issuance of contract</p> <p>Throughout construction</p>

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
	<ul style="list-style-type: none"> • Pave, apply water two times daily, or apply non-toxic soil stabilizers to all unpaved access roads, parking areas, and construction staging areas. • Sweep daily with water sweepers any paved access roads, parking areas, and staging areas at construction sites. • Sweep streets daily with water sweepers if visible soil material is carried onto adjacent public streets. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas or previously graded areas left inactive for ten days or more. • Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). • Limit traffic speeds on unpaved roads to 15 miles per hour. 			
Biological Resources				
CLRDP IM 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.	CRLF survey conducted and reported in this IS Additional identification and exclusion measures set forth in BIO-2, below	PP&C/ Biologist	Prior to project approval
CLRDP IM 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.	Consult with USFWS Include recommended CRLF avoidance/ protection measures in project and implement during construction and/or obtain Incidental Take permit as necessary	PP&C PP&C/ PM	Prior to project approval During construction
CLRDP IM 3.2.14	Non-Invasive Native Plant Species Required. All landscaping and vegetation on the Campus (including restoration and enhancement plantings, screening vegetation, storm water system plantings, ornamental plantings, and all other plant material) shall be limited to non-invasive native plant species	Ensure that Overlooks Project construction contract specifies that project will include only native plantings as specified.	PM	Prior to issuing construction contract

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
	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. Except for the planting of Monterey cypress, Only locally collected seed, cuttings, and/or other propagules shall be used for landscaping. If feasible, materials should be collected from coastal habitats that are located within approximately one mile of the Campus and seaward of Highway 1 similar habitats along the coast of western Santa Cruz county and southern San Mateo County (first and lower reaches of the second marine terraces). ⁸	Monitor landscaping work to ensure that plantings are acquired and used as specified	PM	During landscape planting and restoration
CLRDP IM 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.	Study carried out in summer 2010 as required. No further monitoring needed.		
CLRDP IM 3.4.3	Noise Intrusion into YLR. 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. For the purposes of this measure, “dBA CNEL” means a 24-hour energy equivalent	See Noise section, below		

⁸ Changes suggested by YLR Field Manager

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
	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.			
CLRDP IM 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.	Study carried out as required in summer 2010. No further monitoring needed.		
CLRDP IM 4.3.1	Visual Intrusion into YLR. Development adjacent to YLR shall be sited and designed so that activity and direct light will not be visible from within YLR.	Ensure that final design for Overlooks D and E maximizes topographic and vegetal screening	PM	Prior to approval of final design
CLRDP IM 4.3.2	Visual Intrusion into Terrace ESHA and Other Areas Outside of Development Zones. 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.	Ensure that final design of Overlook A maximizes vegetal screening from terrace ESHA W5; consult with CDFG and YLR Manager to determine whether additional screening is needed; include additional screening as needed	PM	Prior to approval of final design
Overlooks Project-Specific Mitigation	A qualified botanist will conduct a focused plant survey for special-status plant species on and within 100 feet of all areas of ground disturbance during the spring-summer blooming period immediately prior to the construction period. If no special-status	Ensure that survey is conducted as specified.	PP&C PM/ Botanist	

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
Measure BIO-1	<p>plant species are observed during the focused survey, no additional mitigation is necessary.</p> <p>If any special status plants are observed on any of the project sites, the biologist will map and quantify the population will be and a suitable buffer zone will be established based on species requirements, proximity to the work area, and other site-specific factors. The identified population or individuals will be protected during construction by minor footprint modification, exclusion fencing or other protective measures.</p> <p>If protection of the sensitive areas in this manner would preclude construction, and the population therefore cannot be avoided by the project, a qualified botanist will quantify impacts to the population, and the campus will consult with regulatory agencies (California Coastal Commission, California Department of Fish and Game, and/or U.S. Fish and Wildlife Service, as appropriate) for guidance, and additional measures, such as transplanting, or seed or plant start collection and cultivation for restoration in a protected area, will be identified and implemented to ensure that the special status plant population is preserved.</p>	<p>Delineate and avoid/ protect plants as specified</p> <p>If avoidance is infeasible, consult with CDFG/ USFWS and/ or CCC to identify additional mitigation measures, such as restoration. Implement the additional measures.</p>	<p>PM/ Botanist</p> <p>PP&C PM / Botanist</p>	
<p>Overlooks Project-Specific Mitigation Measure BIO-2 (modifies CLRDP EIR Project-Specific MM 4.4-1)</p>	<p>For Overlook sites D and E, the University will implement the following:</p> <ul style="list-style-type: none"> • Prior to commencement of project activities, a qualified biologist will conduct a training session for all construction personnel. Such training will include: a description of the California red-legged frog and its habitat; the general requirements of the Endangered Species Act and avoidance of ESA penalties, the boundaries within which construction will be accomplished; and the specific measures to be implemented in conjunction with the Overlooks project to avoid take CRLF during construction. Each individual that will be working at the project site must undergo this training prior to beginning work at the project site. • Ground disturbing work will be limited to the period from 	<p>Provide training as specified</p> <p>Ensure CRLF training, biological monitoring coordination, stop work and avoidance requirements included in construction contract specifications</p> <p>Schedule construction as specified and include schedule restrictions in project</p>	<p>PP&C/ PM/ Biologist</p> <p>PM</p> <p>PP&C/ PM</p>	

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
	<p>April 15 through October 15. If work must continue after October 15, the Campus will request from USFWS, in writing, an extension, to conduct further ground-disturbing work.</p> <ul style="list-style-type: none"> • Immediately prior to vegetation removal for each of the construction sites, a qualified biologist approved by the USFWS will perform a preconstruction survey for CRLF. Vegetation will be hand cleared, with a hand-carried chainsaw as needed, to a height of 3-6 inches, and the biologist will then repeat the pre-construction survey before any additional ground disturbance at each of the sites. If during pre-construction survey or during the course of construction CRLF are observed in an area that would be impacted, irrespective of whether the biologist is present, work will cease and the Campus will notify USFWS within one working day. Neither the biologist nor any other individual will handle a CRLF. • If no CRLF are identified within the work areas during preconstruction surveys, these areas will be surrounded with 3-foot-high, high grade nylon silt fencing with pre-attached wooden stakes every eight feet, buried 6 inches, to temporarily exclude frogs from the construction site. A cover-board (4 by 4-foot 1/2-inch square of plywood) shall be placed at approximately 100-foot intervals outside the exclusion fence, to provide predator protection for small animals that encounter the fence. Each cover-board shall be elevated approximately two inches using two attached six-inch wooden blocks. The elevated edge of each cover-board shall be placed flush against the outside of the exclusion fence. The cover-boards will be labeled with signage to ensure they are not disturbed and each shall be regularly inspected by the biological monitor. • Prior to work activities each morning, the qualified biologist will inspect the integrity of the exclusion fencing and survey around and under construction equipment, materials 	<p>specifications..</p> <p>Conduct surveys as specified and monitor vegetation removal</p> <p>If CRLF detected, consult with USFWS to determine appropriate actions</p> <p>Ensure that contractor installs exclusion fencing and coverboards and maintains throughout construction</p> <p>Biologist to conduct inspections as specified</p>	<p>Biologist/ PM</p> <p>PP&C/ Biologist/ PM</p> <p>PM/ Biologist</p> <p>PM/ Biologist</p>	

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
	<p>stockpiles and other work area for CRLF. If no CRLF are observed, work may proceed.</p> <ul style="list-style-type: none"> • Prior to or during construction, if a CRLF, or a frog believed to be a CRLF, is observed at an area that would be affected, work will cease and the qualified biologist will be notified immediately. Work in that area will cease and the animal will be avoided until it has safely left the area of its own accord. In addition, USFWS will be informed of the observation. • All trash will be removed from the site daily to avoid attracting potential predators to the site. • Additional avoidance, monitoring or other measures will be carried out if recommended by USFWS during any subsequent consultation. 	<p>Include requirement in project specifications. If frog observed, stop work, protect and observe CRLF, consult with USFWS as specified</p> <p>Include provision in construction contract specification and inspect regularly for compliance</p> <p>Consult with USFWS in event of discovery and impose additional requirements on project if recommended..</p>	<p>PM/ Biologist</p> <p>PP&C PM</p> <p>PP&C PM and Biologist</p>	
Overlooks Project-Specific Mitigation Measure BIO-3	<p>30 to 60 days prior to the start of construction, a biologist will conduct a pre-construction survey for woodrats. The survey will cover of all areas that will be subject to disturbance in the Overlook D and Overlook E development areas. If no active woodrat houses are found at the Overlook E site, no further mitigation is necessary at that location, as the area is small and the potential for undetected nests is limited.</p> <p>Irrespective of whether a nest is found at the Overlook D site during the initial survey, a biological monitor will be present during hand-removal of vegetation at this site, and will direct crews to avoid any houses discovered in the dense cover.</p> <p>If active woodrat houses are found and they can be avoided, an exclusion zone shall be erected, using a temporary fence that does not inhibit the natural movements of wildlife (such as steel T-posts and a single strand of yellow rope or similar materials).</p> <p>If woodrats will be affected by construction and relocation is necessary, biologist and campus will contact CDFG for approval to live-trap and relocate individuals and create one</p>	<p>Ensure that survey of development footprint is conducted as specified, for sites D and E. I</p> <p>Include woodrat protection measures in construction contract specifications</p> <p>Ensure that biologist is present during hand removal of vegetation to identify nests and alert crews to avoid</p> <p>If nests can be protected in place, ensure exclusion fencing is erected and nests protected throughout construction at Overlook D site.</p> <p>Conduct CDFG consultation as required and live trap and relocate individuals as specified</p>	<p>PM/ Biologist</p> <p>PM</p> <p>PM/ Biologist</p> <p>PM/ Biologist</p> <p>PP&C/ PM/ Biologist</p>	

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
	artificial house for each one lost.			
Overlooks Project-Specific Mitigation Measure BIO-4 (modifies CLRDP Project-Specific Mitigation Measure 4.4-2 to include all native nesting birds)	UCSC shall ensure that construction activities avoid disturbing nests of raptors <u>special status and non-listed native birds</u> . <u>If feasible, project construction will be scheduled to occur outside of the nesting season.</u>	Schedule construction outside of nesting season if feasible.	PM	During project schedule planning
	If ground-disturbing activities are scheduled to occur during the breeding season (February 1 through August 31), the following measures are required <u>will be implemented</u> to avoid potential adverse effects on nesting special-status raptors and other birds:	Include potential buffering restrictions in construction contract specifications	PM	Prior to issuing construction contract
	A qualified wildlife biologist will conduct preconstruction surveys of all potential nesting habitat <u>within 300 feet of each work area, within 14 days prior to the start of construction at each site</u> . For burrowing owls, such surveys will follow the most recent CDFG Burrowing Owl Survey Protocol and Mitigation Guidelines.	Conduct survey. Document results.	PM/ Biologist	At least 14 days prior to construction
	If active <u>avian raptor</u> nests are found during preconstruction surveys, <u>the project biologist will consult with the California Department of Fish and Game (CDFG) to determine an appropriate buffer radius based on site conditions and species potentially affected, and a no-disturbance buffer acceptable in size to CDFG will be created around active raptor nests and nests to protect nesting adults and their young from construction disturbance of any other special status birds during the breeding season, and maintained until it is determined the project biologist determines that all young have fledged.</u>	If active nests are found, consult with qualified biologist and CDFG to establish size of no-disturbance buffer.	PM/ Biologist	Before beginning construction
Raptor or other Bird nests initiated during construction are presumed to be unaffected, and no buffer is necessary. However, the “take” of any individuals will be prohibited. If preconstruction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction/restoration period, no further mitigation is required. Trees and shrubs that have been determined to be unoccupied by special-status birds or that are located outside	Establish, protect and maintain buffer	PM, biologist	From pre-construction, throughout construction until nests are vacated	

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
	the no-disturbance buffer for active nests may be removed.			
Cultural Resources				
CLRDP IM 3.9.1	Cultural Resources 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/paleontologist 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.	<p>Include in construction contract specifications the requirement that work be suspended if archaeological resources are disclosed.</p> <p>In the event of a discovery, contract with qualified archaeologist/ Native American consultant/ paleontologist to develop and implement appropriate mitigation measures.</p>	<p>PM</p> <p>PP&C</p>	<p>Before issuing contract</p> <p>Immediately upon a discovery</p>
CLRDP EIR Project-Specific Mitigation Measure 4.5-1	Human Remains: If human remains are discovered during the construction of a development project under the CLRDP, the University and/or its employees shall notify the Santa Cruz County Coroner's Office immediately. Upon determination by the County Coroner that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission, pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and the County Coordinator of Indian Affairs and appropriate Native American consultation shall be conducted, as outlined by PRC 5097.98. Implementation Measure 3.9.1, Construction Monitoring, as identified in the CLRDP, shall also apply. UCSC will be responsible for implementing this mitigation measure.	<p>Include requirement in construction contract specifications to notify UCSC upon construction discovery of suspected human bone.</p> <p>Contact archaeologist and County Coroner in the event of discovery of suspected human bone. Contact California Native American Heritage Commission and conduct Native American consultation if Coroner determines the remains are Native American.</p>	<p>PP&C PM</p> <p>PP&C PM</p>	<p>Before issuing construction contract</p> <p>Throughout construction</p>
Hazardous Materials				
CLRDP IM 3.10.1	Use, Containment and Cleanup of Hazardous Materials. The University, through the Office of Environmental Health and Safety, will 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.	<p>Specify USCS hazardous materials handling, protection and cleanup provisions in construction contract</p> <p>Monitor implementation during construction</p>	<p>PM</p> <p>PM</p>	<p>Prior to issuing construction contract</p> <p>Throughout construction</p>

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
Hydrology and Water Quality				
CLRDP IM 7.1.1	<p>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.</p>	<p>Confirm that project specifications include LID elements and BMP measures as noted in project description</p>	PM	<p>Prior to issuing construction contract</p>
CLRDP IM 7.1.13	<p>Permeable Hardscape. Hardscape development (such as roads, parking areas, paths, patios, etc.), where appropriate for water quality protection purposes, shall include permeable materials (e.g., permeable pavement/concrete, turfblock, etc.) to maximize infiltration. At a minimum, all parking areas shall be surfaced with porous/permeable materials.</p>	<p>Specify the use of permeable materials for platform and trail surfacing in construction contract specifications</p>	PM	<p>Prior to issuing construction contract</p>

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
Noise				
CLRDP EIR Project-Specific Mitigation Measure 4.11-4	<p>Prior to the initiation of construction, the University shall approve a construction noise mitigation program including but not limited to the following:</p> <ul style="list-style-type: none"> • The University shall require that construction activities be limited to a schedule that minimizes disruption to noise-sensitive uses on the project site and in the vicinity through implementation of the following: <ul style="list-style-type: none"> ○ Construction activities during daytime and evening hours (7:00 AM to 10:00 PM) shall not occur within 150 feet of sensitive receptors, when feasible. Construction activities within 500 feet of sensitive receptors activities shall not occur during nighttime hours (10:00 PM to 7:00 AM). ○ Whenever possible, academic and administrative staff, as well as residents who will be subject to construction noise, shall be informed one week before the start of each construction project. ○ Loud construction activity as described above within 150 feet of an academic or residential use shall, to the extent feasible, be scheduled during holidays, spring break, or summer break. • To reduce noise impacts from construction, the University shall require that construction contractors muffle or otherwise control noise from construction equipment through implementation of the measures below. The effectiveness of these measures is quantified in Table 4.11-4 above. <ul style="list-style-type: none"> ○ Internal combustion engines used for any purpose at the construction sites shall be equipped with a muffler of a type recommended by the manufacturer. ○ Equipment used for construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible); 	<p>Include requirement for approved noise mitigation program, with relevant specifications below at minimum, in construction contract specifications</p>	PM	Prior to issuing construction contract
		<p>Monitor construction to ensure that specifications are implemented</p>	PM	Throughout construction

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
	<ul style="list-style-type: none"> ○ Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. Such mufflers can lower noise levels from the exhaust as much as 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures such as using drilling equipment rather than impact equipment shall be implemented whenever feasible. ○ Stationary noise sources shall be located as far from sensitive receptors as feasible. If they must be located near sensitive receptors, they shall be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds. • The University shall require that a temporary wooden wall be placed around construction activity areas that are within 150 feet of sensitive receptors to provide additional noise attenuation, where feasible. The wall should impede the direct line of site between the noise sources and sensitive receptors. • The University shall require that construction-related material haul trips access the campus via Natural Bridges Drive and Delaware Avenue in order to minimize noise exposure to residential land uses. • The University shall identify potential noise impacts related to construction of long-term projects proposed under the CLRDP, and develop project-specific noise mitigation measures as may be necessary. The University shall take into account the location of the five campus facilities that will have been developed in the near-term as well as off-campus developments nearby. The analysis shall also take into account the sequence in which long-term projects are 			

Mitigation Monitoring and Reporting Program				
Measure #	Measure Text	Monitoring Procedure	Monitoring and Reporting Responsibility	Timing
	to be constructed and shall identify appropriate mitigation, as may be required. These future facilities may be sensitive receptors or may act as barriers to noise approaching other sensitive receptors.			
Overlooks Project-Specific Mitigation NOIS-1	The least noisy construction equipment capable of carrying out the required work will be used for brush clearing, grading and excavation necessary for construction of overlooks A, D and E. Smaller and efficiently-muffled equipment will be used whenever feasible. In addition, work shall be done in a fashion that minimizes the number of times noisy equipment must be started up and the duration of operation of noisy construction equipment.	Contract specifications will include requirements for contractor to identify least noisy equipment in his bid and to operate it as specified in the mitigation measure. Campus inspector will confirm that specified equipment is used and that its use is minimized to the extent possible.	PP&C and PM PM	Prior to contract award and throughout construction.

Appendix A. CLRDP Implementation Measures Relevant to and Included in the Overlooks Project

The following CLRDP Implementation Measures are implemented by and/or incorporated in the proposed project:

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 (CLRDP 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 3.2.9 – Wetland Buffers. Buffers for wetlands delineated at the time of CLRDP certification shall be as shown on CLRDP 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 3.2.11 – 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 3.2.14 – Non-Invasive Native Plant Species Required. All landscaping and vegetation on the Campus (including restoration and enhancement plantings, screening vegetation, storm water 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. ~~Except for the planting of Monterey cypress,~~ Only locally collected seed, cuttings, and/or

other propagules shall be used for landscaping. If feasible, materials should be collected from ~~coastal habitats that are located within approximately one mile of the Campus and seaward of Highway 1.~~ similar habitats along the coast of western Santa Cruz county and southern San Mateo County (first and lower reaches of the second marine terraces).⁹

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.

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. 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. 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

⁹ Edits suggested by Field Manager, YLR

(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 3.5.1 – Protection and Enhancement of YLR Habitats. The native plant and animal habitats of Younger Lagoon Reserve 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, 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 shall be protected and enhanced.

Implementation Measure 3.5.3 – Protection of YLR Resources. The biological productivity and quality of 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 3.5.6 – 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. 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.

Implementation Measure 3.6.2 – Visual Access to YLR. Visual access to 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., nondocent) public use.

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 3.7.2 – 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 3.12.4 – Air Quality and Energy Conservation through Alternative Transportation. The University shall promote walking, bicycle use, and transit use consistent with Sections 5.5 and 5.6 to encourage energy efficient forms of travel.

Implementation Measure 3.12.5 – Air Quality and Energy Conservation through Transportation Demand Management. Transportation demand shall be managed consistent with Policy 5.8 and its accompanying implementation measures to encourage alternatives to automobile, and particularly single-occupant automobile, transportation for site users and visitors.

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 4.2.7 – 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.

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. Development adjacent to YLR shall be sited and designed so that activity and direct light will not be visible from within YLR.

Implementation Measure 4.3.2 – Visual Intrusion into Terrace ESHA and Other Areas Outside of Development Zones. 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 6.1.4 – Public Access Overlooks. The University shall construct, provide, and maintain at least six overlooks to provide the public with visual access to natural resources on and adjacent to the Marine Science Campus such as Younger Lagoon Reserve and the ocean. The locations of these overlooks shall be substantially similar to those shown in Figure 5.6, and the University shall be guided by the illustrations contained in Chapter 7 of this CLRDP as it designs the overlooks.

Policy 6.1 – Public Access to the Marine Science Campus: Maximum public access to the coastal resources of the Marine Science Campus and the adjacent shoreline and coastal area shall

be provided consistent with public safety, fragile coastal resources, implementation of the educational and research missions of the Campus, and security of sensitive facilities and research activities on the site.

Implementation Measure 6.1.7 – Interpretive Information. Opportunities for interpretation of the activities occurring at the Campus shall be provided as appropriate. In addition to developed Campus programs, such opportunities shall include interpretive displays, signs, and facilities designed to be easily accessible at and adjacent to public use areas, such as access ways, trails, and overlooks.

Implementation Measure 6.2.3 – Access to Resource Protection Areas. Public access to designated Resource Protection areas shall be managed to protect against disruption of habitat values. The general public may use CLRDP-designated roads, trails, overlooks, and the Younger Lagoon beach area within Resource Protection areas consistent with the provisions of this CLRDP. Only authorized personnel shall be allowed outside of such areas, except that public access may be gained with the University’s written authorization. Authorization shall be granted only on a temporary basis and only for personnel necessary for activities consistent with uses allowed by the CLRDP. The University may use a combination of devices to protect natural resources in designated Resource Protection areas (including fences, walls, berms and vegetation) provided such devices are consistent with the provisions of the this CLRDP.

Implementation Measure 6.2.4 – Access to Resource Protection Buffer Areas. Public access to designated Resource Protection Buffer areas shall be managed to protect against significant degradation of Resource Protection areas. The general public may use CLRDP-designated roads, trails, overlooks, and the Younger Lagoon beach area within Resource Protection Buffer areas consistent with the provisions of this CLRDP. Only authorized personnel are allowed outside of such areas, except that public access may be gained with the University’s written authorization. Authorization shall be granted only on a temporary basis and only for personnel necessary for activities consistent with uses allowed in the CLRDP. The University may use a combination of devices to protect designated Resource Protection Buffer areas (including fences, walls, berms, and vegetation) provided such devices are consistent with the provisions of the this CLRDP.

Implementation Measure 6.2.5 – Access to Coastal Bluffs. The University shall provide access to the coastal bluff top edge through existing, enhanced, and new trails and overlooks as shown in Figure 5.6. Except for trails identified in Figure 5.6, the University shall limit access down the face of the bluff to the rocky intertidal area to authorized personnel trained to use rope ladders. The University may install and maintain bluff-top signs in this area warning of the danger of traversing the bluff face and of occupying the rocky intertidal area or surf below. The University may use a combination of devices to protect the coastal bluffs in this area from human intrusion (including fences, walls, berms, and vegetation), provided such devices are consistent with the provisions of this CLRDP.

Implementation Measure 6.2.10 – Public Access Signage. Signage and other media shall be used to provide visitors with information about coastal resources, identify the location of public trails, overlooks, parking, and other Campus access and recreation amenities, and warn of dangers in the environment. Signage shall also be provided to identify Controlled Access Trails, with information about supervised tours. Signs shall be located, at a minimum: at each trailhead (i.e., where visitors enter the Marine Science Campus); at each trail intersection with another trail or an overlook; at each overlook; at each public coastal access parking area; and at intervals along trails

no more than 200 feet apart. Trail signs specifically shall be placed so as to be visible to trail users coming from either direction (e.g., back-to-back signs). Brochures or other media describing Campus public access amenities shall be consistent with all CLRDP provisions and shall be made available at convenient locations for visitors to the Campus (i.e., Campus entrance at Delaware Avenue, Seymour Center, public coastal access parking areas, overlooks, etc.).

Implementation Measure 6.2.12 – Maintenance of Existing Public Access. Public access resources existing at the time of CLRDP certification, including trails, overlooks, parking, and signage, shall, at a minimum, be maintained in their existing condition until such time as they may be enhanced pursuant to the provisions of this CLRDP.

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 7.1.8 - 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 7.1.13 - Permeable Hardscape. Hardscape development (such as roads, parking areas, paths, patios, etc.), where appropriate for water quality protection purposes, shall include permeable materials (e.g., permeable pavement/concrete, turfblock, etc.) to maximize infiltration. At a minimum, all parking areas shall be surfaced with porous/permeable materials.