

**University of California Santa Cruz**  
**Addendum #1 to the Marine Science Campus Projects**  
**Environmental Impact Report, Analyzing the Coastal**  
**Science Campus Parking Lots**

Prepared By:

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June 2016

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**Addendum #1 to the  
Marine Science Campus Projects Environmental Impact Report,  
Analyzing the Coastal Science Campus Parking Lots**

**I. PROJECT INFORMATION**

1. Project title:

Coastal Science Campus Parking Lots

2. Lead agency name and address:

The Regents of the University of California  
1111 Franklin Street  
Oakland, CA

3. Contact person and phone number:

Alisa Klaus, 831-459-3732  
University of California Santa Cruz (“UC Santa Cruz”)  
1156 High Street  
Santa Cruz, CA 95064

4. Project location:

UC Santa Cruz Coastal 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 and addenda (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.
- 3) Addendum # 2 to the CLRDP EIR, June 2010.
- 4) Marine Science Campus Projects EIR, November 2011 (tiered from the UCSC Marine Science Campus CLRDP EIR).

All of these documents are available 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. PURPOSE OF THIS ADDENDUM**

The University of California, Santa Cruz campus (“UC Santa Cruz” or “campus”) Marine Science Campus Projects Environmental Impact Report (“EIR”) (SCH# 2010062090), which was certified by The Regents of the University of California (“The Regents”) in January 2012, analyzed the

June 2016

potential environmental impacts of four interrelated projects at the UC Santa Cruz Coastal Science Campus (“CSC”), formerly known as the Marine Science Campus (“MSC”). The four projects are: the Coastal Biology Building (“CBB”) Project; the Marine Science Campus Infrastructure (“MSCI”) Project; the Nature Education Facilities (“NEF”) Project; and Specific Resource Plan Phase 1B (“SRP 1B”) (collectively, “MSC Projects”). The EIR also analyzed 11 minor revisions (collectively, Amendment #1) to the Coastal Long Range Development Plan (“CLRDP”) adopted in 2008.

The Regents approved the design of the four projects in January 2012. Construction of the CBB Project, utility and circulation improvements necessary to support the CBB Project (described in the MSC Projects EIR as part of the MSCI Project), and trail improvements described in the MSC Projects EIR as part of the NEF Project began in May 2015; the University anticipates that construction will be completed in May 2017. Construction of the SRP 1B Project will begin in summer 2016.

The campus is now proposing a change order to the existing construction contract to include construction of a new parking lot E and reconfiguration and expansion of the existing Seymour Marine Discovery Center (“Seymour Center”) parking lot (“Project Changes”). The new parking lot E would provide 91 spaces on an approximately 1-acre site north of the CBB which is currently being used as a staging area for CBB and MSCI construction. The Seymour Center parking lot, which is located near the southern end of the campus, currently provides 82 parking spaces. Under the proposed change order, the lot would be reconfigured and expanded by about 16,000 sf, to add 55 spaces. The modifications to the Seymour Center lot would also improve storm water management and ADA access, and add a pay station.

This addendum (“Addendum”) was prepared in accordance with CEQA to inform the University’s consideration and action on the proposed Project Changes. The purpose of this addendum is to evaluate whether the additional construction work, the presence of changed circumstances or new information since The Regents approved the MSC Projects and certified the MSC Projects EIR in January 2012, as described below, triggers the need for the preparation of additional CEQA documentation.

### **III. PROJECT APPROVALS AND PERMITS**

#### **Relationship to Prior Approvals**

The MSC Projects are elements of the program of development for the Coastal Science Campus as described in the CLRDP and analyzed in the CLRDP EIR (State Clearinghouse No. 2001112014, UC Santa Cruz 2004). The MSC Projects EIR is tiered from the CLRDP EIR, which was certified by The Regents in September 2004 in conjunction with approval of the January 2004 Draft CLRDP. The University has prepared two addenda to the CLRDP EIR subsequent to its certification:

- 1) The University’s Addendum #1 to the Final EIR, “Project Refinements and Additions”, for modifications made to the Draft CLRDP during the planning process and which were approved by the University in November 2006; and
- 2) The University’s Addendum #2 to the Final EIR, “Specific Resource Plan Phase 1A,” for the first phase of CLRDP-required habitat enhancement and restoration, which was approved by the University in July 2010.

The CLRDP EIR and the two addenda are available online at <http://lrpd.ucsc.edu/final-ceir.shtml>, or may be reviewed at the offices of UC Santa Cruz Physical Planning and Construction. The California Coastal Commission (“Coastal Commission”) determined in April 2008 that the CLRDP is consistent with the policies of the California Coastal Act and approved the CLRDP, conditional upon UC Santa Cruz’s acceptance of the suggested modifications. These modifications did not necessitate changes to the CLRDP EIR. Following approval of the suggested modifications by the University in December 2008, the Coastal Commission certified the CLRDP in January 2009.

The Regents certified the MSC Projects EIR and approved the MSC Projects and CLRDP Amendment #1 in January 2012. For projects proposed for development under the CLRDP, incorporation of relevant implementation measures and consistency with CLRDP policy must be demonstrated in a Notice of Impending Development (NOID), which must be submitted to the Coastal Commission. Development of a project may not proceed unless the Coastal Commission has determined that it is consistent with the approved CLRDP.

The University submitted NOID 6 (13-1), which included the MSC Projects and the proposed CLRDP Amendment #1, to the Coastal Commission in June 2013. At its August 2013 meeting, the Coastal Commission determined that the development described in the NOID is consistent with the CLRDP, with inclusion of conditions regarding berm fencing and parking fees, and approved CLRDP Amendment #1. In October 2013, the Coastal Commission adopted Findings reflecting its August 2013 decision.

### **Other Approvals and Permits**

Development of the new parking lot E and expansion of Seymour Center lot would require that the campus submit a NOID to the Coastal Commission, which must determine that this development is consistent with the CLRDP.

### **Environmental Determination**

If it is determined that project implementation would result in new significant impacts or a significant increase in previously identified significant impacts, or if new information changes prior significance conclusion or indicates that new mitigation measures would be required to reduce the significance of previously-identified mitigation measures, a subsequent environmental document is required. As section 15162(a) of the California Environmental Quality Act (“CEQA”) Guidelines (Title 14, California Code of Regulations) states in relevant part:

When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Under CEQA Guidelines section 15163, a supplement to a certified EIR may be prepared when any of the conditions requiring preparation of a subsequent EIR are met, but only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. Under CEQA Guidelines section 15164, in cases where some changes or additions are necessary but none of the conditions in CEQA Guidelines section 15162(a) has occurred, an EIR addendum may be prepared. If none of the above conditions is present, no further environmental review is required.

This Addendum finds that the proposed additional parking lot construction would not trigger any of the criteria in CEQA Guidelines section 15162(a). The additions to the previously contemplated project would not cause any new significant environmental effects that were not considered in the MSC Projects EIR, nor increase the severity of any impact previously found significant therein, and no new information of substantial importance that was not known at the time the MSC Projects EIR was certified, has become available. Accordingly, the University determines that an addendum to the MSC Projects EIR is the appropriate level of environmental review for the Project Changes. This Addendum therefore has been prepared to specifically describe the scope of the Project Changes and their impacts in relation to the MSC Projects, and to provide an analysis under CEQA Guidelines section 15162 in the following assessment of environmental factors potentially affected.

#### **IV PROJECT BACKGROUND AND OBJECTIVES**

##### **Background**

##### **CLRDP Parking Requirements**

The CLRDP includes policies and implementation measures limiting the amount of parking, to avoid covering large portions of the campus with parking areas, and to reduce campus reliance on automobile transportation. Under the CLRDP, parking on the CSC is limited at buildout to a total of up to 795 spaces, including 191 spaces existing at the time of CLRDP certification, and 604

additional spaces. The 191 existing spaces included 63 spaces on the NOAA and CDFW sites (see tables 1 and 2). The remaining 128 spaces served campus facilities and visitors. The 191 spaces identified in the CLRDP did not include approximately 48 informal spaces along McAllister Way in the Middle and Lower Terrace development zones.

The University may control almost all of the parking on the campus through the use of programmatic means (e.g., including possibly parking permits and/or parking meters) to ensure that spaces are available for high-priority users such as visitors seeking coastal access and campus teachers, researchers, and staff. However, the CLRDP also requires that the campus provide specified minimum numbers of spaces for public coastal access in the Middle and Lower Terrace development zones. This includes 10 dedicated public coastal access spaces and at least 40 dual-use parking spaces in the Lower Terrace development zone, at least five dedicated public coastal access spaces in the Middle Terrace development zone, and at least 15 dedicated public coastal access spaces in the Campus Entrance development zone.

The CLRDP also stipulates that no new parking spaces shall be developed until existing parking spaces in a given development zone are greater than or equal to 90 percent utilized (on average). The CLRDP (Figure 5.5, Circulation and Parking Diagram), identifies “Major Parking Locations,” including the Seymour Center parking lot, but specific locations of parking lots are to be determined in conjunction with specific future building authorizations, and will be dependent upon how the campus develops over time and the relationship of buildings, streets, and other campus facilities to potential parking lot locations.

Chapter 9 of the CLRDP requires that the campus remove the informal parking area located along the west side of McAllister Way between the Lower Terrace development zone and the greenhouses in the Middle Terrace development zone within one year of CLRDP certification.

The CLRDP, as certified by the Coastal Commission in 2008, required that all parking demand for employees, students and visitors shall be satisfied on campus (Implementation measure 5.3.7). CLRDP Amendment #1, which was analyzed in the MSC Projects EIR, approved by the University in conjunction with design approval for the MSC Projects, and approved by the Coastal Commission as part of NOID 6, revised this implementation measure to read, “New development shall include adequate and enforceable measures to ensure that parking demand associated with CLRDP development does not impact public parking or coastal access on streets adjacent to the MSC, including Delaware Avenue.”

## **MSC Projects EIR**

As analyzed in the MSC Projects EIR, approved by the University, authorized under NOID 6, and currently under construction, the MSC Projects include development of two parking lots in the Middle Terrace development zone which will provide a total of 115 spaces, and one 15-space, visitor-only, parking lot in the Campus Entrance development zone (see Table 1). The MSC Projects also include abandonment of the informal, unpaved parking areas along McAllister Way and their restoration to a natural state, which has already occurred and eliminated approximately 48 existing spaces. NOID 6 also covers the parking program required by the CLRDP.

Table 1  
Coastal Science Campus, Parking Inventory

	CLRDP baseline	MSC Projects EIR baseline	Spring 2015 survey	Existing, June 2016	Existing + MSC Projects, per EIR	With proposed Project Changes
Center for Ocean Health(1)	33	37	37	37	37	37
Seymour Center(2)	72	82	82	82	82	137
LML Service Area(3)	16	8	18	18	18	18
AvianFacility(4)	7	0	0	0	0	0
McAllister Way(5)	NA	48	48	0	0	0
Lots C and D	NA	NA	NA	NA	115	115
Lot E	NA	NA	NA	NA	NA	91
Entrance lot	NA	NA	NA	NA	15	15
<b>subtotal UCSC</b>	<b>128</b>	<b>175</b>	<b>185</b>	<b>137</b>	<b>267</b>	<b>413</b>
NOAA	52	52	52	52	52	52
CDFW	11	11	11	11	11	11
<b>subtotal other</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>63</b>
<b>TOTAL</b>	<b>191</b>	<b>238</b>	<b>248</b>	<b>200</b>	<b>330</b>	<b>476</b>

Notes

- (1) Four parallel parking spots added along the north fence
- (2) Seven spaces were added as parallel parking along COH, and the original three bus spaces at the north edge of the lot were converted to car spaces.
- (3) Spaces not striped so count is imprecise. Ten spaces were out of commission for construction in 2010.
- (4) Now referred to as Conservation Annex. Spaces were removed by CBB Project.
- (5) Not included in the CLRDP baseline.

Table 2  
Existing and Proposed Parking, Lower and Middle Terrace Development Zones

	Existing (June 2016)	Added by CBB Project	Future, with CBB Project	Added by Proposed Project Changes	With proposed Project Changes
Center for Ocean Health	37		37		37
Seymour	82		82	55	137
LML South	18		18		18
<b>TOTAL LOWER TERRACE</b>	<b>137</b>		<b>137</b>		<b>192</b>
Lots C and D	NA	116	116		116
Lot E	NA		NA	91	91
<b>TOTAL MIDDLE TERRACE</b>	<b>NA</b>		<b>116</b>		<b>116</b>

The parking program designates spaces within existing and new parking lots to meet the requirements for public coastal access and dual-use spaces in the Lower Terrace, Middle Terrace, and Campus Entrance development zones. As analyzed in the MSC Projects EIR, the construction of the new parking lots in conjunction with removal of the informal spaces, would yield a net increase of 83 spaces, bringing the total number of campus-managed spaces on the CSC to 267 and the total number of spaces on the campus to 330 (Table 1).

### **Existing and Projected Parking Lot Utilization (without Project Changes)**

#### *Middle Terrace Development Zone*

There is no existing parking in the Middle Terrace Development Zone. Seven spaces at the Avian Facility (now known as the Conservation Annex), south of the CDFW facility, have been eliminated as part of the CBB Project. The CBB Project, when complete, will provide 115 spaces in this development zone. The MSC Projects EIR estimated that development of the CBB Building and greenhouses in the Middle Terrace Development Zone would generate demand for between 106 and 164 spaces, depending on the method used to estimate. Therefore, the campus projects that when the CBB Project is occupied in 2017, the new parking lots in the Middle Terrace Development Zone will be at more than 90 percent occupied. While spaces designated for public coastal access use would accommodate projected visitor demand, the MSC Projects EIR projected that some campus affiliates would not be able to park on the Campus. This excess demand would be met by existing street parking on Delaware Avenue and Shaffer Road or at other UC-owned facilities, as allowed under CLRDP Implementation measure 5.3.7 as amended.

#### *Lower Terrace Development Zone*

A Spring 2015 utilization survey of the parking lots in the Lower Terrace Development Zone and the informal spaces along McAllister Way estimated that the average utilization of the 185 spaces was approximately 93 percent. With the elimination of the 48 informal spaces in Spring 2016, the number of spaces has been reduced to 137, and demand exceeds supply.

In addition to the excess demand associated with normal weekday uses, the 48 informal spaces formerly accommodated parking demand generated by events at NOAA as well as events at the Seymour Center and Long Marine Lab. The demand is greatest when large events are scheduled on weekdays, when the parking lots in the Lower Terrace Development Zone are most heavily utilized by school groups and UC Santa Cruz affiliates.

### **Project Objectives and Reasons for Project Changes**

The objectives of the Marine Science Campus Infrastructure component of the MSC Projects as analyzed in the MSC Projects EIR, include:

- Construct utility improvements, facilities, public parking, and storage areas necessary to support the CBB project and future development as set forth in the CLRDP.
- Increase capacity, reliability, and flexibility of existing infrastructure.

- Improve campus circulation network for vehicles, bicycles, and pedestrians.
- Incorporate storm water features that will minimize storm water runoff to protect and enhance water quality.
- Comply with circulation and storm water-related implementation measures required as part of the Coastal Commission certification of the CLRDP.

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E in the Middle Terrace development zone would support these objectives by:

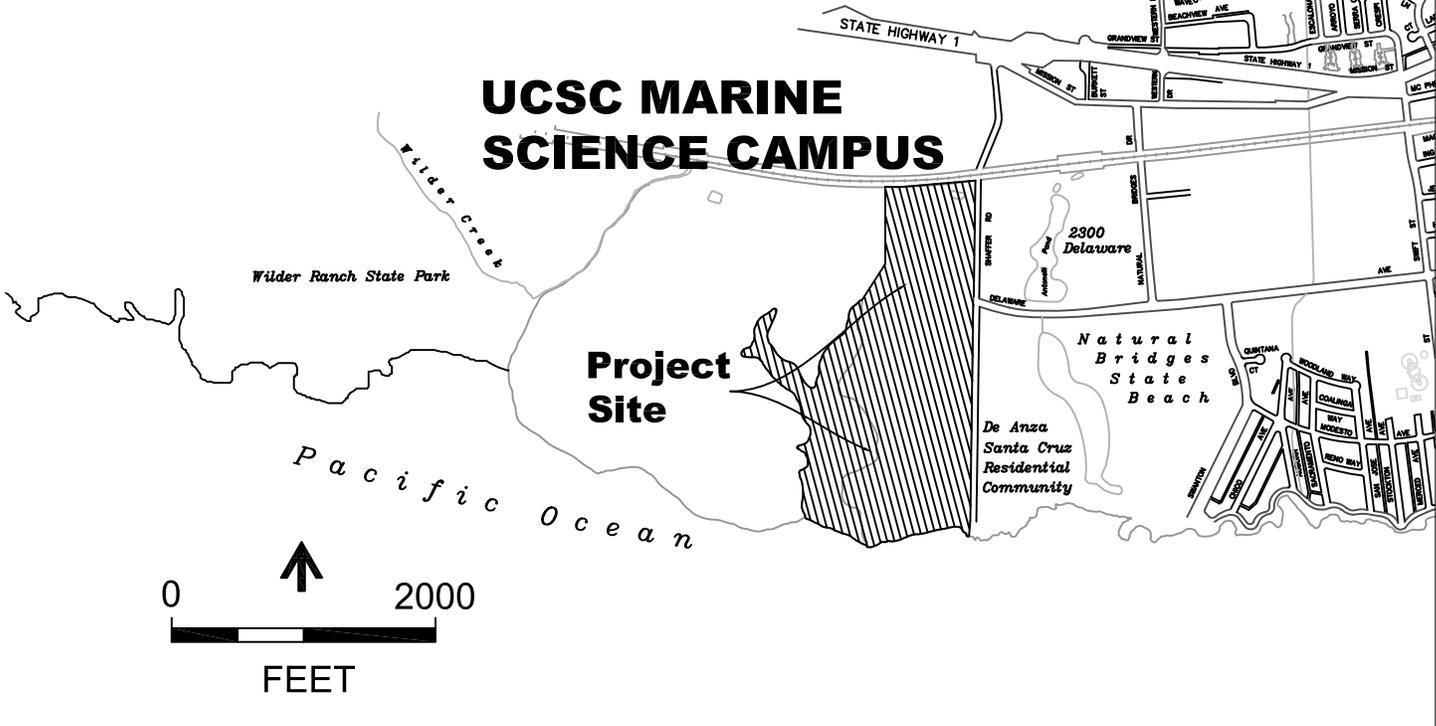
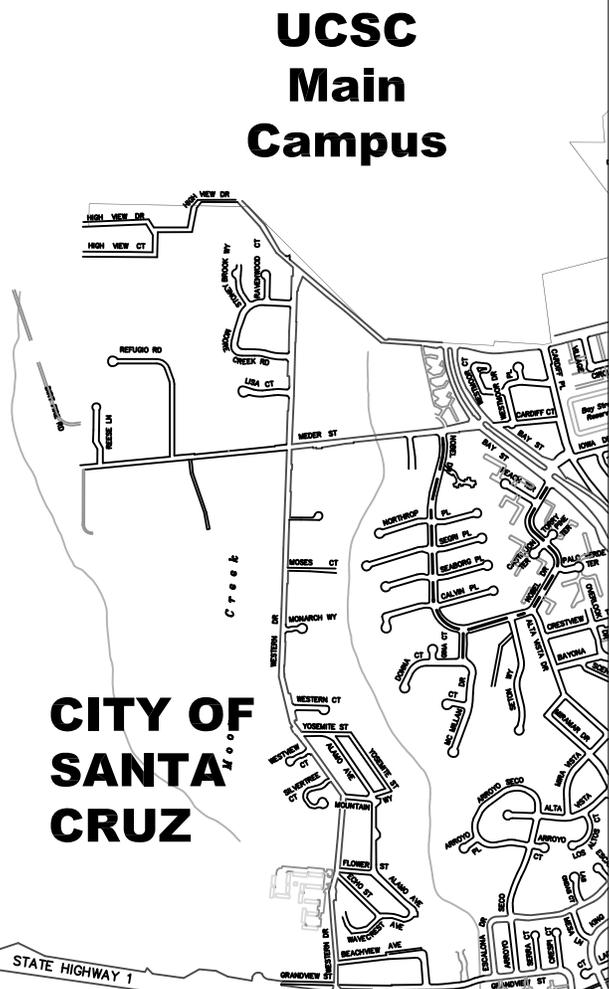
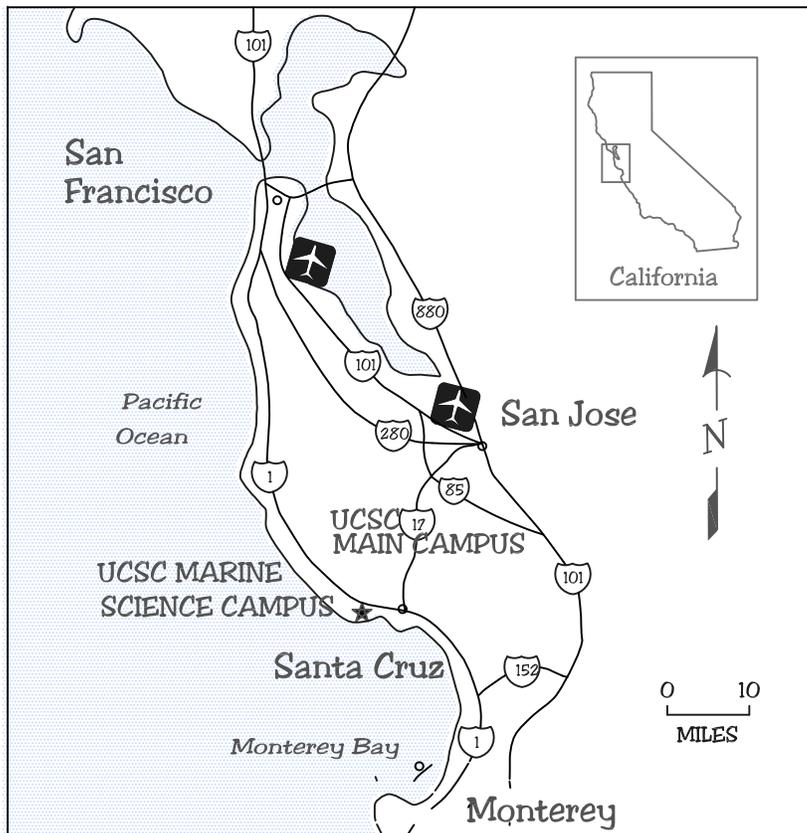
- Providing additional parking on the Lower Terrace of the Seymour Center to alleviate the effect of the removal of the informal parking on McAllister, particularly during events at the Seymour Center.
- Facilitating the future extension of Metro bus service to the CSC by reconfiguring the Seymour Center parking lot to allow buses to turn around.
- Improving accessible paths of travel between the Seymour Center lot and the Seymour Center and the adjacent Overlook A.
- Reducing existing impervious surface area in the Lower Terrace by replacing asphalt in the parking spaces with a pervious paving system.
- Increasing the number of dual use parking spaces in the Lower Terrace development zone.
- Supporting the University's strategy for special and/or temporary events, as required by the CLRDP, by provide additional parking in the Middle and Lower Terrace development zones to accommodate parking demand for events that overlap with high coastal visitation and classes.

## **V. PROJECT LOCATION AND DESCRIPTION**

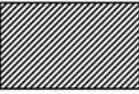
### **Parking lot E**

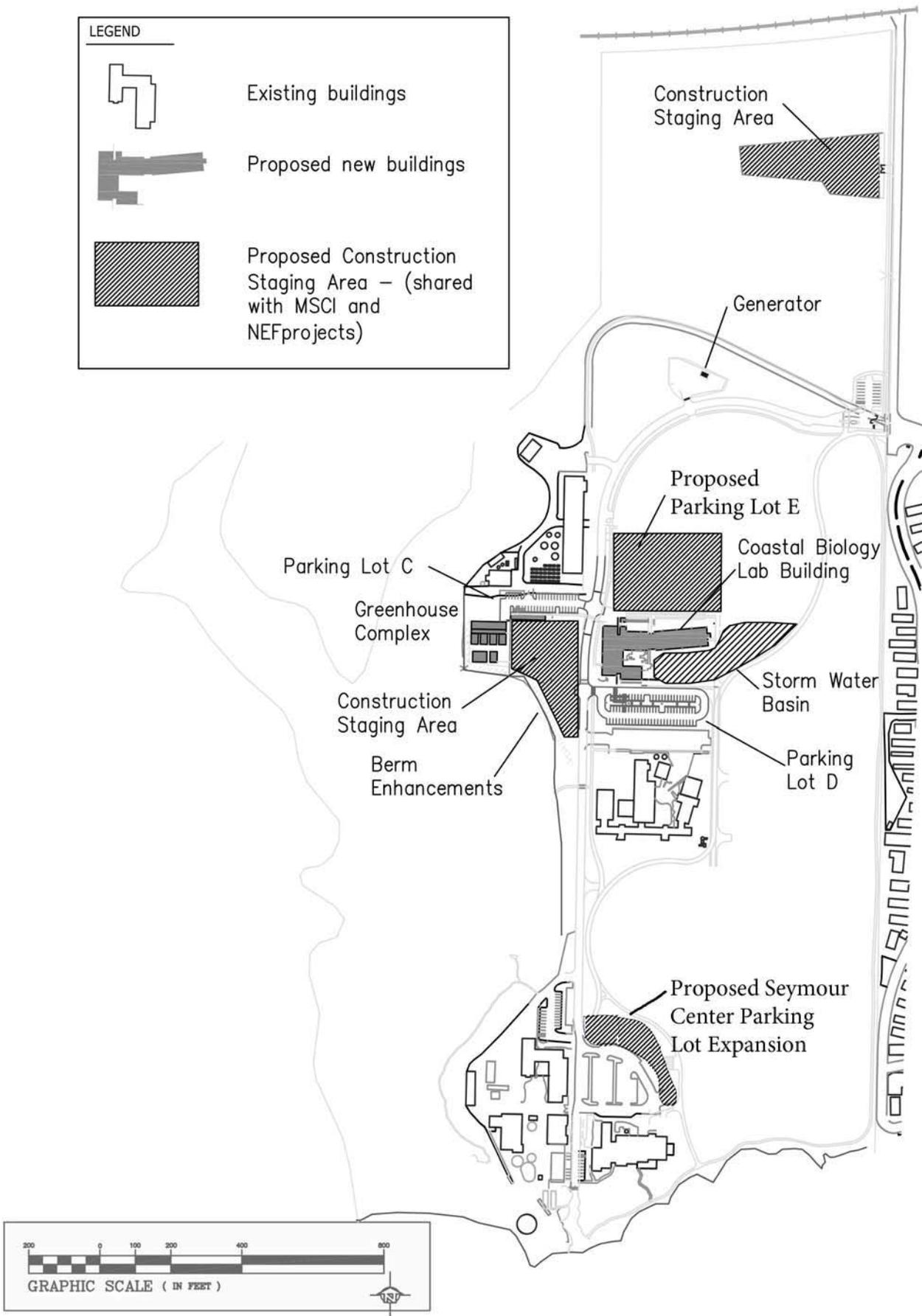
The proposed parking lot E would be located in the Middle Terrace development zone as defined in the CLRDP (Figures 1 and 2). Before it was cleared to create a staging area for construction of the MSC Projects in May 2015, the site was undeveloped. The CLRDP EIR (Section 4.4) describes the vegetation communities at the site as coyote brush-grassland and ruderal (the designation for areas that have been affected by relatively recent or repeated heavy disturbance). The site was prepared for use as a construction staging/laydown area, by removing brush and laying down 8 inches of drain rock over filter fabric.

The CLRDP designates the site for future development. As analyzed in the MSC Projects EIR, after construction of the MSC Projects is completed, the gravel and filter fabric would be removed, the ground surface scarified to alleviate compaction resulting from construction use, and the area hydroseeded in a sterilized annual grass cover crop, such as barley, that does not have the capacity to reseed and therefore could not spread into adjacent areas. The EIR analysis determined that this procedure potentially could result in introduction of undesirable species and genetic stocks and increased colonization of the area by invasive and non-native plants that could spread to the YLR. The EIR identifies MSC Projects BIO-2A through BIO-2C, providing two options for treatment of the staging area following construction: 1) after scarification, seed or replant the site with a non-invasive control seed mix or a mix of locally collected native grasses and forms; or 2) retain the groundcover cloth and gravel and maintain the area as a temporary parking lot until such time as it is developed.



**LEGEND**

-  Existing buildings
-  Proposed new buildings
-  Proposed Construction Staging Area – (shared with MSCl and NEFprojects)



The new parking lot E would cover an area of approximately 32,000 sf and provide 91 parking spaces. The parking lot would be surfaced with TrueGrid permeable pavers over crushed aggregate. Access to the lot from McAllister Way would be off of the driveway north of the new CBB facility. A 30-inch-high earthen berm would be constructed along the western edge of the lot and a portion of the northern edge to provide visual screening from McAllister Way. A pay station would be installed near the entrance to the lot. A new trench drain would be installed across the driveway to maintain the connectivity of an existing drainage swale along the southern edge of the site. A paved pedestrian path leading off the southeast corner of the new parking lot E would connect to the paved pathway at the northeast corner of CBB. Another paved pathway at the southwest corner of the lot would connect to the sidewalk along McAllister Way.

### **Seymour Center Parking Lot Expansion**

The Seymour Center parking lot is located in the Lower Terrace development zone (Figure 2). The lot covers an area of 0.9 acres and provides 82 parking spaces. The existing lot is bounded by McAllister Way on the west, the Seymour Marine Discovery Center building on the south, and a 3-foot-high landscaped berm on the north and east. A recently improved trail providing access to overlooks toward the wetland to the east runs roughly parallel to the berm, 45 to 90 feet from the edge of the existing lot. The land between the berm and the trail has been mapped as Developed-Ruderal habitat and is vegetated with non-native grasses and forbs and planted native shrubs and non-native Monterey cypress trees<sup>1</sup>. Through the Project Changes, the parking lot would be expanded to incorporate the existing berm and the land between the berm and the trail, an area of approximately 16,000 sf. The expansion of the Seymour Center parking lot was not analyzed in the MSC Projects EIR, although the area outside the lot that would be disturbed for the expansion was included in the “maximum area of disturbance” covered by the biological resources assessment that was prepared as background for the EIR. Although the expansion area is within the Lower Terrace development zone, it is not within a development subarea. Development within development zones but outside of a development subarea is limited to at-grade development such as streets and parking lots (CLRDP Figure 5.4).

The Project Changes would expand the existing Seymour Center parking lot by approximately 16,000 sf and reconfigure it to add 55 additional spaces. The entrance to the parking lot would be moved to the north, to align with the entrance to the Center for Ocean Health parking lot on the other side of McAllister Way. The parking spaces would be surfaced with TrueGrid permeable pavers over crushed aggregate. In the existing drive aisles, most of the existing road section would be retained and the top lift of asphalt would be replaced or an overlay of asphalt added. The existing berm would be reconstructed in the remaining available space between the parking lot and the trail. Grading for the Project would result in a net excess of 1,400 cy of soil. Three ADA-compliant accessible parking spaces would be included in the southeast corner of the lot. A concrete path would provide barrier-free access from these spaces to Overlook A. New, high-efficiency LED lighting would be provided. Gabion walls would be constructed around two

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<sup>1</sup> Biosearch Associates, 2010. Biotic Assessment of the Overlooks Project, UC Santa Cruz Marine Science Campus. 20 August.

existing picnic areas and the trash/recycling dumpster bins. A pay station would be installed in an island at the southern end of the lot.

### **Construction Schedule**

The additional parking lot construction would take place in late summer to early fall in the final phase of the infrastructure work included in the MSC Projects as analyzed in the MSC Projects EIR. All other grading, trenching, utility installation, and paving would be completed before the additional parking lot construction begins. Work that would overlap with the additional parking lot construction would include interior construction of the CBB and greenhouse buildings, landscaping, and trail construction. The new CBB parking lot would accommodate temporary parking for the Seymour Center and other lower terrace facilities during construction at the Seymour Center parking lot.

### **Consistency with the CLRDP**

The CLRDP allows parking lots to be constructed anywhere within the designated development zones. The Seymour Center lot and the proposed expansion area, are located in the Lower Terrace development zone. The proposed parking lot E site is in the Middle Terrace development zone. Both the Seymour Center parking lot and the proposed parking lot E would be sited in locations designated as major parking locations on CLRDP Figure 5.5.

The CLRDP allows for construction of new parking to provide up to a total of 795 spaces on the campus. As documented above, construction of the MSC Projects will bring the total number of spaces on the campus to 267. The proposed Seymour Center parking lot expansion and the new parking lot E would add 55 and 91 new spaces, respectively, bringing the total number of parking spaces on the campus to 413, which would be less than the maximum number of spaces allowed under the CLRDP and analyzed in the CLRDP EIR. The CLRDP stipulates that no new parking spaces shall be developed until existing parking spaces in a given development zone are greater than or equal to 90 percent utilization, on average. As explained above, existing utilization of the parking lots in the Lower Terrace development zone is greater than 90 percent, and the campus projects that the new parking lot under construction in the Middle Terrace development zone will be at least 96 percent utilized when the CBB and new greenhouses are occupied in 2017.

A list of all CLRDP policies and implementation measures and the Project's consistency with each applicable requirement is included in Appendix A.

## **VI. CHANGED CONDITIONS SINCE APPROVAL OF THE MSC PROJECTS**

Construction of the MSC Projects began in May 2015, with completion scheduled for May 2017. Some elements of "Phase B" of the MSC Project as analyzed in the MSC Projects EIR are not included in the current construction project and are not currently planned. These elements are: development of a 16,000-sf vegetated storm water basin east of the Middle Terrace development zone to support future campus development under the CLRDP; construction of a new service road and utility corridor along the eastern edge of the Middle Terrace development zone; installation of 550 linear feet of new water pipe and 450 linear feet of natural gas distribution pipeline beneath this service road. As described above, all other road, parking lot, and utility work currently underway would be completed before construction of the Seymour Center parking lot expansion and the new parking lot E begin.

In 2014, the University approved the Mammal Pools Expansion and Renovation Project, which will renovate and expand the existing Long Marine Lab marine mammal pool facility in the Lower Terrace development zone. A first phase of the project, completed in 2015, provided improvements to existing above-ground tanks and the installation of one new tank at the CDFW facility to provide temporary accommodation of the animals that will be displaced by construction. The second phase, which is currently under construction, will expand the Long Marine Lab facility by about 2,894 sf to accommodate enlargement of the largest pool by 32 feet in length. The expansion will involve removing an existing fence, excavation to a depth of up to 30 feet for the pool expansion, construction of a new retaining wall, and new fencing. The renovations will include re-coating of the pool surfaces, structural repairs to the pools, upgrades to the surrounding decks and observation areas, mechanical upgrades, and fencing improvements to meet current regulatory, building code and accessibility requirements.

The MSC Projects EIR analysis of construction noise impacts took into account the potential development of a desalination facility by the City of Santa Cruz on Shaffer Road across from the MSC Upper Terrace. The City has discontinued planning for the desalination facility; therefore, there is no potential that construction of the desalination plant would overlap with construction of the MSC Projects.

## **VI. 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 |

**VII. DETERMINATION: (To be completed by lead agency)**

On the basis of the evaluation that follows:

- I find that the proposed Project Changes could have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, and that these effects have not been adequately analyzed by the MSC Projects EIR. A TIERED ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION will be prepared.
  
- I find that, even if the proposed Project Changes could have a potentially significant effect on the environment, an addendum to the MSC Projects EIR is appropriate because the Project Changes do not trigger any of the criteria of CEQA Guidelines section 15162; specifically, (1) substantial changes are not proposed in the MSC Projects which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; (2) substantial changes have not occurred with respect to the circumstances under which the MSC Projects are undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and (3) no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following: (A) the MSC Projects will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the MSC Projects, but the University declines to adopt the mitigation measure or alternative; or (D) mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the University declines to adopt the mitigation measure or alternative. An ADDENDUM and/or FINDINGS has been prepared.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
For

**VIII. EVALUATION OF ENVIRONMENTAL IMPACTS**

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

“**Additional Project-level Impact Analysis Required**” applies where the Project Changes may result in an environmental impact that was not considered in an earlier document, or not considered in sufficient detail, and/or substantial project changes, changed circumstances, or new information of substantial importance triggering CEQA Section 15162 has occurred since certification of the earlier document.

“**Project Impact Adequately Addressed in Earlier Environmental Document**” applies where the potential impacts of the Project Changes were adequately addressed in an earlier environmental document and either no changes or no substantial changes to the project are proposed, and no new information of substantial importance has been identified.

**Impact Questions and Responses**

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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**1. AESTHETICS** – Would the project:

- |  |                          |                                     |
|--|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista?  | <input type="checkbox"/> | <input checked="" 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 checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?  | <input type="checkbox"/> | <input checked="" 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 checked="" type="checkbox"/> |

**Relevant Features of the Project**

The proposed parking lot E site is currently being used as a construction staging/laydown area. The Project includes a 30-inch-high earthen berm along the north and west of the proposed parking lot to provide visual screening from McAllister Way.

The Seymour Center parking lot is located in the Lower Terrace development zone (Figure 2). The existing lot is bounded by McAllister Way on the west, the Seymour Marine Discovery Center

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building on the south, and a 3-foot-high landscaped berm on the north and east. The land between the berm and the trail is vegetated with non-native grasses and forbs and planted native shrubs and non-native Monterey cypress trees. The current proposal would expand the parking lot to incorporate the existing berm and the land between the berm and the trail, an area of approximately 16,000 sf. The existing berm would be reconstructed in the remaining available space between the parking lot and the trail.

The following CLRDP EIR or MSC Projects EIR mitigation measures and/or CLRDP implementation measures related to aesthetics were adopted as part of the Mitigation Monitoring Program for the CLRDP and are applicable to the proposed additional parking lot construction. The complete text of these measures and an explanation of project compliance is included in Appendix A

IM 4.1.1., Location of Development.

IM 4.2.1, Design Standards and Illustrative Campus Buildout Site Plan.

IM 4.2.2, Alteration of Natural Landforms

IM 4.2.10 Placement of Utility Lines Underground

IM 4.3.6, Parking Lot and Maintenance Yard Lighting

IM 4.3.8 Lighting Plan Required

### **Previous Analysis**

a,b,c) The MSC Projects EIR (pp. 3.1-10 to 3.1-15) determined that the new CBB building, greenhouses, utility yard and storage yard would be visible in scenic vistas from medium- and short-range vantage points, and would alter views of scenic resources, including the open grasslands on the site and Younger Lagoon. The MSC Projects EIR also determined that the MSC Projects would increase the amount of urban development on the campus, which could alter the visual character and quality of the site. These impacts would be less than significant because, as shown in visual simulations of the proposed development, the Projects would comply with implementation measures and design guidelines included in the CLRDP, including clustering of buildings, limits on building height and massing, setbacks from campus roads, maintenance of view corridors and open space on the terrace, planting tall shrubs to provide windbreaks and screening, and the use of colors that blend with the natural vegetation. Compliance with these requirements of the CLRDP would limit the visual intrusion effects of the Projects upon public views from important vantage points; minimize any perceived contrast between the structures and the surrounding visual environment; ensure that the height and scale of the proposed development would be compatible with the height and scale of existing development at the site; preserve open space areas; provide landscaping that would create a graduated visual link to adjacent rural areas.

d) The MSC Projects EIR (pp. 3.1-15 to 3.1-17) determined that the Projects would increase the amount of exterior lighting on the campus, which, if not appropriately limited and screened, could result in a deterioration of nighttime views from neighboring uses, reduce the perceived open space boundary that separates these uses, and contribute to the perception of extension of urbanized areas to the city limit. This impact would be less than significant because all lighting would comply with CLRDP requirements that all lighting be shielded to prevent light from spreading vertically or horizontally.

**Effect of Project Changes on the Previous Environmental Analysis**

a-c) The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not add to the building mass and therefore would not contribute to the less-than-significant impacts to scenic vistas. The parking lot locations are consistent with the CLRDP land use plan and therefore would not impinge on the open space between development zones. Consistent with CLRDP design requirements, vegetated berms would be provided to screen views of the parking lots from McAllister Way. Therefore, the proposed changes to the Project would not have the potential to increase the severity of the impact identified in the 2005 LRDP EIR and further analysis is not needed.

d) Consistent with the CLRDP requirements for lighting, existing lights at the Seymour Center parking lot would be replaced with new, downward directed and shielded pole lights. New lighting for the new parking lot E and the added parking spaces at the Seymour Center lot would also be consistent with these requirements. Therefore, the proposed changes to the Project would not have the potential to increase the severity of the impact identified in the 2005 LRDP EIR and further analysis is not needed.

**Conclusions**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant visual impact or increase the severity of a previously identified impact, 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 aesthetic impacts of the Project Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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**1. AGRICULTURAL AND FOREST**

**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 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

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
<p>Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.            Would the project:</p>		
<p>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?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>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))?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>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?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Relevant Features of the Project**

The proposed parking lot E site is located in the Middle Terrace development zone and is currently being used as a construction staging/laydown area. The Seymour Center parking lot is located in the Lower Terrace development zone (Figure 2). The existing lot is bounded by McAllister Way on the west, the Seymour Marine Discovery Center building on the south, and a 3-foot-high landscaped berm on the north and east. The land between the berm and the trail is vegetated with non-native grasses and forbs and planted native shrubs and non-native Monterey cypress trees. The proposed additional construction would expand the parking lot to incorporate the existing berm and the land between the berm and the trail, an area of approximately 16,000 sf which is vegetated with non-native grasses and forbs and planted native shrubs and non-native Monterey cypress trees. The existing berm would be reconstructed in the remaining available space between the parking lot and the trail.

The following CLRDP EIR or MSC Projects EIR mitigation measures and/or CLRDP implementation measures related to agricultural and forestry resources were adopted as part of the Mitigation Monitoring Program for the CLRDP and are applicable to the proposed additional parking lot construction. The complete text of these measures and an explanation of project compliance is included in Appendix A.

#### IM 2.2.1 Setback of Development and Uses from Adjacent Agricultural Uses

##### **Previous Analysis**

a) The 54.5-acre terrace property, acquired by the University in 1999, which includes the sites of the CBB, MSCCI, and NEF Projects, has been mapped as Unique Farmland. 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 the 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 would not result in significant impacts on Farmland (CLRDP EIR, pp. 4.2-12 to -13). The MSC Projects EIR determined that the proposed Projects are consistent with the building program and infrastructure development analyzed in the CLRDP EIR. Therefore, the analysis in the CLRDP EIR is applicable to the proposed MSC Projects and the impact of the conversion of Unique Farmland to non-agricultural uses would be less than significant.

b) The Marine Science Campus and the adjacent Younger Ranch are not under Williamson Act contract; therefore, the MSC Projects EIR (p. 3.2-7) concluded that development under the CLRDP, including the MSC Projects, would have no impacts on Williamson Act lands.

c, d) The Project site is not forest land and was not forest land historically. No impact would occur

e) The CLRDP EIR analyzed the potential that development 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, pp. 4.2-14 to -15). However, the CLRDP EIR identified General Mitigation 4.2-1 to further ensure that the adjacent agricultural property is not adversely affected. This mitigation requires that the campus install a landscaped fence along the Younger Ranch property line on the Upper Terrace prior to the groundbreaking of any CLRDP project components. The MSC Projects EIR determined that the population increase associated with the proposed Projects is within the population analyzed in the CLRDP EIR. The campus was in the process of implementing General Mitigation 4.2-1. The MSC Projects EIR (pp. 3.2-7 to -9) determined that the analysis in the CLRDP EIR adequately addresses the potential indirect impacts of the proposed Projects on agricultural lands and the impact would be less than significant.

The CLRDP EIR also determined that development on the MSC in conjunction with other regional development would not result in a significant cumulative indirect impact on the agricultural lands to the west of the project site. Although there are vacant parcels farther east of the project site, these are sufficiently distant that agricultural odors, dust, and other potential sources of conflict would not be significant problems. Furthermore, implementation of the proposed CLRDP would create a perceived buffer by placing semi-urban UC Santa Cruz research uses between agricultural operations and these vacant parcels and the existing De Anza Santa Cruz residential community.

As discussed in the MSC Projects EIR, since the CLRDP EIR was certified in September 2004, the City has approved a 20-acre mixed-use live-work neighborhood development project at 2120 Delaware Avenue, approximately 1,500 feet east of the project site. The City of Santa Cruz EIR for the 2120 Delaware Avenue Project determined that the 2120 Delaware Avenue Project would not result in any impacts on agricultural resources. As analyzed in the CLRDP EIR (p. 4.2-17), the 2120 Delaware Avenue site and other vacant parcels on the west side of Santa Cruz are far enough from existing agricultural land that agricultural odors, dust, and other sources of potential conflict would not be significant problems. The proposed MSC Projects, in conjunction with other development in the area, would not result in significant cumulative impacts on agricultural resources and no mitigation measures are required.

**Effect of Project Changes on the Previous Environmental Analysis**

a-e) The proposed expansion of the Seymour Center parking lot and the construction of the new parking lot E are within the development program analyzed in the CLRDP EIR. Therefore, these changes to the MSC Projects would not result in new significant impacts related to agricultural or forestry resources and no additional analysis is required. In addition, the campus has implemented CLRDP EIR General Mitigation 4.2-1, which further reduces the less-than-significant indirect impact on agricultural resources which was identified in the CLRDP EIR.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant impacts on agricultural or forestry resources or increase the severity of a previously identified impact, 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 agricultural and forestry resource impacts of the Project Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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**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 checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input checked="" 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 checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Relevant Features of the Project**

The parking lot construction and modifications would require minor grading, and some earth-moving to move the existing berm at the Seymour Center lot and construct a new berm at the proposed parking lot E. The total area of disturbance would be approximately 2 acres. The additional parking lot construction would take place in late summer to early fall in the final phase of the infrastructure work included in the MSC Projects as analyzed in the MSC Projects EIR. All other grading, trenching, utility installation, and paving would be completed before the additional parking lot construction begins. Work that would overlap with the additional parking lot construction would include interior construction of the CBB and greenhouse buildings, landscaping, and construction of the Central Campus Trail.

The proposed changes to the MSC Projects would not result in an increase in vehicle trips to the campus and would not involve any new stationary sources of air pollutant emissions.

The following CLRDP EIR or MSC Projects EIR mitigation measures related to air quality were adopted as part of the Mitigation Monitoring Program for the CLRDP and are applicable to the proposed additional parking lot construction. The complete text of these mitigation measures is included in Appendix B. As these requirements are incorporated into the existing construction contract, they would also apply to the additional parking lot construction.

CLRDP MM 4.3-1 Construction dust control

MSC Projects MM AIR-1 (revises CLRDP MM 4.3-1)

**Previous Analysis**

a) As reported in the CLRDP EIR (p. 4.3-27), the Association of Monterey Bay Area Governments (AMBAG) determined that the CLRDP was consistent with the applicable Air Quality Management Plan. The MSC Projects EIR determined that the proposed MSC Projects, which are within and consistent with the program of development included in the CLRDP and analyzed in the CLRDP EIR, therefore are consistent with the AQMP.

b-d)

***Construction emissions of criteria pollutants.*** As analyzed in the MSC Projects EIR (p. 3.3-12), the total area of disturbance for all project components would be approximately 13.3 acres,

including 3.1 acres for the CBB Project; 3.5 acres for the MSCI Project Phase A and the trail improvements and parking lot included in the NEF Project; 1.2 acres for MSCI Phase B; and 5.5 acres for SRP Phase 1B. The URBEMIS2007 model was used to quantify construction emissions generated during each phase of project construction: demolition, grading/excavation, trenching, building construction, architectural coating, and paving. The model estimates construction equipment usage and worker trips based on the project acreage and building square footage. PM<sub>10</sub> emissions from fugitive dust, equipment exhaust, and worker vehicle exhaust were totaled and compared with the threshold of 82 pounds per day to evaluate the level of significance of construction activities. The emission calculations assume the implementation of CLRDP EIR Project Specific Mitigation Measure 4.3-1, which requires the use of standard dust control practices recommended by the MBUAPCD. The EIR (p. 3.3-13 to -16) determined that the maximum daily emissions of PM<sub>10</sub> from project construction would be 69.17 lbs, which would not exceed the significance threshold of 82 lbs/day. The EIR also identified MSC Projects Mitigation Measure AIR-1, which revises CLRDP EIR Mitigation Measure 4.3-1 to require watering at least three times daily during the months of February through November, to address windy conditions at the site.

Following the MBUAPCD CEQA Guidelines, the MSC Projects EIR determined that the operation of construction equipment such as dump trucks, scrapers, bulldozers, compactors and front-end loaders that temporarily emit precursors of ozone (i.e., VOCs or NOX) would not have a significant impact on the attainment and maintenance of the ozone standards because they are accommodated in the emission inventories of State- and federally-required air plans.

***Construction-related toxic air contaminant (TAC) emissions.*** The MSC Projects EIR (pp. 3.3-19 to -20) analyzed the potential health risks associated with construction-related fugitive dust, which could carry residual pesticides, nickel and arsenic that remain in the soil from past agricultural uses, as well as diesel particulate matter from diesel engines that would be used during construction. The MSC Projects EIR refers to the modeling that was performed for the CLRDP EIR to assess both carcinogenic and non-carcinogenic health effects from worst-case emissions of construction-related TAC emissions (CLRDP EIR, Appendix C). The TAC model assumed that three projects with a total of 6.32 acres of disturbance would be under construction simultaneously in one year, and that clearing and grading operations would occur at each site for 12 hours per day, six days per week over a two-month period. These assumptions set forth a highly conservative worst case, as construction typically would occur for no more than 8 hours per day, five days per week. Emissions were modeled for the grading and clearing phase of construction, which would result in the highest level of TAC emissions, because these activities would disturb soil that may contain pesticides, heavy metals, and diesel particulate matter. The CLRDP EIR determined that both non-carcinogenic and carcinogenic risks would be well below the applicable significance thresholds. As shown in CLRDP EIR Table 4.3-3, below, the maximum acute exposure levels for DDT and its breakdown products, and for arsenic and nickel, would be several orders of magnitude below the acceptable acute exposure levels.

**CLRDP EIR TABLE 4.3-3  
MAXIMUM ACUTE EXPOSURE LEVELS FROM CONSTRUCTION ACTIVITIES**

<b>Substance</b>	<b>Concentration in Soil (mg/kg)<sup>a</sup></b>	<b>Maximum Acute Exposure (<math>\mu\text{g}/\text{m}^3</math>)<sup>b</sup></b>	<b>Acceptable Acute Exposure (<math>\mu\text{g}/\text{m}^3</math>)</b>
DDT/DDD/DDE	0.145 <sup>c</sup>	$3.8 \times 10^{-6}$	10.0 <sup>d</sup>
Arsenic	4.6	$1.2 \times 10^{-4}$	0.19 <sup>e</sup>
Nickel	5.7	$1.5 \times 10^{-4}$	6.0 <sup>e</sup>

- a Concentrations include the highest levels of 16 samples taken between September 9 and October 2, 2002.  
b Exposure level is based on PM10 concentration of 26  $\mu\text{g}/\text{m}^3$ .  
c Concentration is the sum of all three pesticides for the highest sample.  
d Acceptable level is 1% of the OSHA threshold Limit Value of 1,000  $\mu\text{g}/\text{m}^3$ .  
e Established by California Office of Environmental Health Hazard Assessment.

mg/kg = milligram per kilogram of soil  
 $\mu\text{g}/\text{m}^3$  = microgram per cubic meter

As show in CLRDP EIR Table 4.3-4, below, the total incremental cancer risk from construction under the CLRDP would be 2.1 in a million, which is well below the significance threshold of 10 in a million.

**CLRDP EIR TABLE 4.3-4  
MAXIMUM INCREMENTAL CARCINOGENIC RISK FROM EXPOSURE TO TACs DURING CONSTRUCTION**

<b>Substance</b>	<b>Concentration in Soil (mg/kg)</b>	<b>Maximum Lifetime Exposure (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Unit Value (risk/<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Risk</b>	<b>Incremental Lifetime Cancer Risk in a Million</b>
Arsenic	4.6	$4.6 \times 10^{-6}$	$3.3 \times 10^{-3}$		0.0015
Nickel	5.7	$5.7 \times 10^{-6}$	$2.6 \times 10^{-4}$		0.00002
Lead	12.0	$12.0 \times 10^{-6}$	$1.2 \times 10^{-5}$		0.000001
Diesel PM	-	0.007	$3 \times 10^{-4}$		2.1

mg/kg = milligram per kilogram of soil  
 $\mu\text{g}/\text{m}^3$  = microgram per cubic meter

As analyzed in the MSC Projects EIR (pp. 3.3-19 to -20) construction of the CBB, MSCI and NEF projects would disturb a total of approximately 7.8 acres, which is slightly greater than the maximum simultaneous area of disturbance assumed in the CLRDP EIR health risk analysis.

Although the SRP Phase 1B Project would affect an additional 5.5 acres, most of the work for that project would be done by hand and mechanical grading would occur over the course of two or three days and may not take place for several years. Therefore, emissions from this work likely would not cumulate with the other emissions from grading. The MSC Projects EIR determined that both the non-carcinogenic and carcinogenic risks associated with simultaneous construction of the CBB, MSCI and NEF projects would still be below the applicable thresholds because the risks estimated for the CLRDP were so far below the significance thresholds that the additional 1.5 acres of simultaneous grading clearly would not result in exceedance of the thresholds.

***Local Carbon Monoxide (CO) Concentrations.*** The CLRDP EIR (pp. 4.3-21 to 4.3-22) assessed CO impacts by using the MBUAPCD CO screening model to evaluate CO concentrations at the intersections most affected by development under the CLRDP in conjunction with other regional development. The analysis demonstrated that CO concentrations at these intersections would remain below State and federal ambient standards. The CLRDP EIR therefore determined that CO emissions associated with development under the CLRDP would not result in a significant air quality impact (CLRDP EIR, p. 4.3-22). The MSC Projects EIR determined that CO emissions associated with the proposed MSC Projects would not exceed CO standards and the impact would be less than significant because the 545 new vehicle trips generated by the proposed MSC Projects would be within the number of vehicle trips projected for campus development under the CLRDP.

***Operational emissions of criteria pollutants.*** URBEMIS2007 was also used to estimate emissions from project operations, including space and water heating from boilers fueled by natural gas; the emergency generators fueled by natural gas and propane; and motor vehicle trips that would be generated by the project. As shown in Table 3.3-7 of the MSC Projects EIR (pp. 3.3-22 to -23), these emissions would not exceed MBUAPCD thresholds and the impact of the MSC Projects would be less than significant. The SRP Phase 1B would not create operational sources of air pollutant emissions.

***Operational emissions of toxic air contaminants.*** The health risk assessment that was conducted as part of the CLRDP EIR modeled the potential health risks associated with emissions from laboratory fume hoods, diesel trucks, and buses that would serve facilities that would be developed under the CLRDP, as well as emissions from diesel-fueled emergency generators that would be included in future projects. The HRA estimated that the incremental increase of contracting cancer at the maximum impact receptor would be 5.4 in a million, with the major contribution from the mobile sources. The maximum incremental risk from all proposed research laboratories within the CLRDP was estimated to be 0.1 in a million. Therefore, the maximum incremental cancer risk resulting from TAC emissions from development under the CLRDP would be below the significance threshold of 10 in a million (CLRDP EIR, p. 4.3-23). The maximum chronic hazard index from diesel exhaust is estimated to be  $3.6 \times 10^{-3}$ . For the laboratory chemicals, the Hazard Index is estimated to be less than  $1 \times 10^{-4}$ , and the total Hazard Index (laboratory chemicals and diesel exhaust) is estimated to be  $3.7 \times 10^{-3}$ . This maximum level is well below the significance threshold of 1.0.

The MSC Projects EIR (pp. 3.3-23 to -26) analyzed the potential that TAC emissions from laboratory fume hoods at the CBB, emergency and standby generators associated with the CBB, and diesel trucks servicing the new facilities would result in a significant health risk to nearby receptors. The MSC Projects EIR determined that the MSC Projects would not produce greater TAC emissions than those analyzed in the CLRDP EIR because the proposed emergency generators would be smaller than those used in the CLRDP calculations and would use natural gas

and propane rather than diesel fuel, and because diesel trucks and buses are less polluting than the vehicles assumed in the model used for the CLRDP EIR health risk assessment. Therefore, the MSC Projects would not result in a significant health risk from TAC emissions.

e) The MSC Projects determined that it is unlikely that any of the projects would result in substantial emissions of pollutants associated with objectionable odors because they would not result in emissions of emit criteria pollutants or TACs that exceed the respective significance thresholds. Furthermore, any unforeseen odors generated by campus operations would be controlled in accordance with MBUAPCD Rule 402 (Nuisances), which prohibits the discharge of air contaminants that cause “injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause injury or damage to business or property.” Adherence to Rule 402 would mitigate unforeseen odors to a less than significant impact. Therefore, the proposed Projects would have a less than significant impact with respect to this criterion.

#### **Effect of Project Changes on the Previous Environmental Analysis**

a) As discussed in Section V, above, the new parking lot E and expansion of the Seymour Center lot would be consistent with the CLRDP. Therefore, the addition of this construction to the MSC Projects would not alter the EIR determination that the MSC Projects EIR are consistent with the AQMP.

b-d)

#### ***Construction emissions of criteria pollutants.***

As analyzed in the MSC Projects EIR, the maximum daily emissions of PM<sub>10</sub>, 69.17 lbs would occur during the first months of construction, when grading for the CBB lab buildings and new greenhouses would coincide with grading for the new campus road and trenching for new utilities. In the second year of construction, when grading would be complete, daily emissions would drop to 3.32 lbs/day. The total area of disturbance for the proposed additional parking lot construction would be approximately 2 acres, much less than the 6.6 acres of grading during the first phase of construction. This may overlap with grading for the trails, which would affect an area of approximately 1.25 acres. The wetland reconnection work under SRP Phase 1B, which will begin in the summer 2016, would overlap with the parking lot construction; however, recent detailed analysis indicates that the wetland reconnection will probably be accomplished through installation of brush packs rather than grading. Therefore, the total area subject to grading, including the additional parking lot construction and the trails would be a maximum of 3.25 acres. Furthermore, MSC Projects Mitigation Measure AIR-1, which requires the use of standard dust control practices would be applicable to the proposed parking lot construction. Therefore, the daily PM<sub>10</sub> emissions associated with the additional parking lot construction in conjunction with ongoing building and infrastructure construction would be less than the maximum emissions analyzed in the MSC Projects EIR.

The additional parking lot construction may overlap with grading and excavation for the Marine Mammal Pool Renovation and Expansion Project (“Mammal Pool Project”) on the lower terrace west of McAllister Way. The Initial Study/Mitigated Negative Declaration (IS/MND) for the Marine Mammal Pool Project analyzed the maximum cumulative air pollutant emissions that could result from construction of the MSC Projects and the Marine Mammal Pools Project. The analysis assumed that grading and excavation for the Marine Mammal Pools Project would coincide with

the worst-case emissions from the MSC Projects construction (i.e., grading for all elements of the MSC Projects at one time). The Mammal Pools Initial Study/Mitigated Negative Declaration estimated the maximum cumulative PM<sub>10</sub> emissions at 73.75 lbs/day, which is below the significance threshold of 82 lbs/day (Mammal Pools IS/MND, pp. 28-29). As explained above, the total grading for the MSC Projects, during the additional parking lot construction, would be 3.25 acres, less than the maximum assumed in the MSC Projects EIR and the Mammal Pools IS/MND. Therefore, the EIR adequately addresses the cumulative impact associated with construction PM<sub>10</sub> emissions.

***Construction-related toxic air contaminant (TAC) emissions.*** Although the additional parking lot construction would disturb a total of approximately 2 acres, the native soils which contain residual pesticides and metals would not be disturbed in the existing drive aisles in the Seymour Center parking lot, an area of about 0.25 acre. Therefore, the additional parking lot construction would disturb approximately 1.75 acres of soil. The majority of the grading for the MSC Projects, including the CBB and greenhouse sites, the new campus entrance road, and the Central Campus Trail (approximately 5 acres) was completed in 2015. The remainder of the grading, to be completed in 2016, including the existing McAllister Way and the new trails, covers an area of approximately 2 acres. Grading for the Mammal Pools Project would add an additional 0.1 acre of grading for a total area of soil disturbance in 2016 of 3.75 acres, compared to the 6.6 acres of grading in one year which was assumed in the CLRDP EIR analysis of health risks associated with construction emissions of TAC.

In February 2015, the California Office of Environmental Health Hazards Assessment (OEHHA) issued new guidelines for health risk assessments for air toxics hot spots.<sup>2</sup> The new guidelines make several changes to the methodology, including increasing the assumed breathing rates for children and infants; adjusting time at home and duration of exposure, which differ among infants, children, and adults, reducing exposure assumptions for adults, and applying an age sensitivity factor which increases the effects of exposure on those below age 16. The South Coast Air Quality Management District estimated that use of the new methodology could increase residential risks by about three times for a single exposure pathway.<sup>3</sup> As discussed above, the cancer risk estimated for the CLRDP EIR was 2.1 in a million, compared to the significance threshold of 10 in a million. The maximum acute exposure levels estimated for the CLRDP EIR were several orders of magnitude lower than the acceptable acute exposure levels. Therefore, with a smaller area of disturbance for 2016 than assumed in the CLRDP EIR, the TAC emissions would still be below the acceptable acute exposure levels if the newer methodology were used.

***Operational Emissions (local CO concentrations, criteria pollutants, and toxic air contaminants).*** The proposed additional parking lot construction would not result in additional vehicle trips to the campus or introduce any new stationary sources of air pollutants. Therefore, the proposed additional construction would not cause emissions of CO, criteria pollutants, or toxic air contaminants, to exceed those analyzed in the MSC Projects EIR.

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<sup>2</sup> Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program. 2015. Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments. February.

<sup>3</sup> South Coast Air Quality Management District. Potential Impacts of New OEHHA Risk Guidelines on SCAQMD Programs. 2014. <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2014/may-specsess-8b.pdf>

. Exposure may take place through various pathways, including inhalation, ingestion, dermal exposure, mother's milk, and home gardens. For laboratory fume hood emissions, only the inhalation pathway applies.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant air quality impacts or increase the severity of a previously identified impact, 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 Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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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 regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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 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 checked="" 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 checked="" type="checkbox"/> |
| e) Conflict with any applicable policies protecting biological resources?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?

**Relevant Features of the Project**

Before it was cleared as a staging area for construction of the MSC Projects in May 2015, the site of the proposed parking lot E was undeveloped coyote brush-grassland and ruderal habitat. The site was prepared for use as a construction staging/laydown area, by removing brush and laying down 8 inches of drain rock over filter fabric.

The expansion of the Seymour Center parking lot would disturb an area of approximately 16,000 sf, which includes a land mapped as ruderal habitat and a berm that is vegetated with non-native grasses and forbs and planted native shrubs and non-native Monterey cypress trees.

The following CLRDP EIR or MSC Projects EIR mitigation measures and/or CLRDP implementation measures related to biological resources were adopted as part of the Mitigation Monitoring Program for the CLRDP and are applicable to the proposed additional parking lot construction. The complete text of the CLRDP measures and an explanation of the project’s compliance with these is included in Appendix A. The complete text of the mitigation measures is included in Appendix B. Except as noted in italics below, these mitigation measures would be incorporated into the ongoing biological monitoring program.

**IM 3.2.9 Wetland Buffers**

**IM 3.2.11 California Red-Legged Frog Protection**

**IM 3.2.12 USFWS Consultation Required**

**IM 3.2.14 Non-Invasive Native Plant Species Required**

**IM 3.3.1 Pre-development Evaluation of Wetland Conditions**

**IM 3.3.2 Update CLRDP With Respect to Wetlands**

**IM 3.4.2 Noise Intrusion into Terrace ESHA**

**IM 3.4.3 Noise Intrusion into YLR (original YLR)**

**IM 3.4.4 Pre-development Evaluation of ESHA Conditions**

**IM 3.4.5 Update CLRDP With Respect to ESHA**

**IM 4.3.1 Visual Intrusion into YLR (Original YLR)**

**CLRDP EIR Project Specific Mitigation Measure 4.4-1** – Pre-construction surveys and other measures to protect California red-legged frogs.

**CLRDP EIR Project Specific Mitigation Measure 4.4-2:** Pre-construction monitoring for and avoidance of nesting birds.

**MSC Projects Mitigation Measure BIO-1:** Focused surveys for special-status plants. *These surveys were completed in 2014 and covered the areas that would be disturbed for the additional parking lot construction. No additional surveys would be required.*

**MSC Projects Mitigation Measures BIO-2A through -2C:** Measures to prevent spread of non-native plant species in construction staging area north of CBB. *With construction of new parking lot E, this mitigation measure would no longer be required.*

**MSC Projects Mitigation Measures BIO-3A through -3E:** California red-legged frog avoidance measures.

**MSC Projects Mitigation Measure BIO-4:** Survey for and avoidance of western burrowing owl

**MSC Projects Mitigation Measure BIO-5:** Survey for and avoidance of American badger

**MSC Projects Mitigation Measure BIO-6:** Survey for and avoidance of western pond turtle

**MSC Projects Mitigation Measures BIO-7A-B:** Pre-construction surveys for and avoidance of nesting birds

**MSC Projects Mitigation Measure BIO-9:** Survey for and avoidance of San Francisco dusky-footed woodrat

**MSC Projects Mitigation Measure BIO-10B:** Prohibition against night parking on road across terrace portions of YLR.

**MSC Projects Mitigation Measure BIO-10C:** Limit on night-time construction.

**MSC Projects Mitigation Measure BIO-15:** Biological Mitigation Coordinator required during construction.

### **Previous Analysis**

a)

***Special-Status Plants.*** The CLRDP EIR determined that no state or federal special-status plant species or other special-status plant species occurred on the Marine Science Campus, and no such species were presumed to be present due to the lack of suitable habitat. An additional survey conducted in 2010 in support of the MSC Projects EIR did not identify any special-status plants, but some suitable habitat components for 28 special-status plants species were identified within and adjacent to the project study area. Because the 2010 survey was undertaken outside of the blooming season for most of the special-status plants for which suitable habitat is present, it could not be definitively determined that no special-status plants are present in the project study areas. For these reasons, it is possible that special-status plants could be present on the project site and, if present, could be damaged or destroyed by construction of the proposed Projects. The MSC Projects EIR (pp. 3.4-26 to -28) determined that this would be a potentially significant impact which would be reduced to a less-than-significant level through MSC Projects Mitigation Measure BIO-1, which requires focused surveys for target special-status plant species and specifies avoidance measures to be taken if any of these plants are found. The required surveys were carried out in 2014 and no special-status plants were identified in areas that would be affected by the MSC Projects.

***California Red-Legged Frog (CRLF)*** The MSC Projects EIR (pp. 3.4-31 to 3.4-31) determined that construction activity along roadways and site clearing and grading could result in direct

mortality to CRLF in portions of the work area that support appropriate cover, should the individuals be present during construction. Based on the fact that only a single road-kill has been reported on the site despite regular heavy use of the roads and facilities, the number of frogs moving across the site is likely very small. However, if sheltering CRLF are present on development sites during construction or move into or across development sites during construction, individuals could be injured or killed. This impact would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measures BIO-3A through BIO-3E. These mitigation measures require contractor training, construction of exclusion fencing during construction, biological monitoring and pre-construction surveys, and restrictions on night-time construction work. However, if the projects result in the harassment, injury or death of CRLF, this would be considered a take under the Endangered Species Act. It is anticipated that the projects will be subject to a federal permit under Section 404 of the Clean Water Act. In this case, the USACE will perform a Biological Assessment and a Biological Opinion will be developed in consultation with the USFWS regarding whether the projects could result in a take of CRLF. If it is determined that the effect of the project would be adverse, additional mitigation measures could be required as part of the federal permitting process.

***Western Burrowing Owl*** The MSC Projects EIR (3.4-35 to -36) determined that adult western burrowing owls could be killed if they occupy a burrow within a work area that will be disturbed during construction. This would be a potentially significant impact which would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measure BIO-4, which requires a survey for wintering burrowing owls during the winter season immediately preceding the start of construction, and measures to protect owls during construction if they are present.

***American badger*** The MSC Projects EIR (3.4-36 to -37) determined that ground disturbance during construction in grassland and scrub could result in injury or death of American badgers, should they be present. This would be a potentially significant impact which would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measure BIO-5, which requires a preconstruction survey for badger dens and diggings, and measures to protect badgers during construction if they are present.

***Western Pond Turtle*** The MSC Projects EIR (3.4-37 to -38) determined that construction work in grasslands and open coyote brush scrub habitat could result in death of adult western pond turtles if they attempt to nest in a work area during construction, and eggs or hatchlings could be killed if a nest is deposited within a work area. This would be a potentially significant impact which would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measure BIO-6, which requires contractor training on avoidance and protection and avoidance of the species, wildlife exclusion fencing prior to construction, surveys for pond turtle nests, and protection or relocation of nests if any are found.

***Nesting Birds*** The MSC Projects EIR (3.4-38 to -40) determined that removal of vegetation, including grasses and shrubs, could result in destruction of nests of special status and other native and migratory birds. Construction activity, particularly in Subareas 6 and 7 in close proximity to Younger Lagoon, could disturb nesting birds, if present, which could result in nest abandonment and adversely affect breeding success. This would be a potentially significant impact which would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measures BIO-7A through BIO-7C, which require pre-construction surveys, establishment of buffers around active nests, and construction scheduling requirements for Development Subareas 6 and 7 (in the middle terrace development zone west of McAllister Way-).

***Special Status Bats*** The MSC Projects EIR (3.4-40 to -41) determined that Potential habitat for special-status bat species is present in the greenhouses slated for demolition. If greenhouses and associated structures are occupied by special-status bats, demolition could result in destruction of day roosts or maternity roosts. This would be a potentially significant impact which would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measure BIO-8, which requires pre-construction surveys and measures to protect or re-located maternity roosts if any are present.

***San Francisco Dusky-Footed Woodrat (SFDW)*** The MSC Projects EIR (3.4-41 to -42) determined that ground disturbance during construction in grassland and scrub could result in direct impacts to SFDW houses, injury or mortality of woodrats and their young (should they be present), or interference with woodrat breeding. This would be a potentially significant impact which would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measure BIO-9, which requires a preconstruction survey for woodrat nests, and protection or location of any active nests.

b) The MSC Projects EIR (3.4-48 to -50) determined that the proposed MSC Projects and CLRDP Amendment #1 would involve minor project activity within terrace ESHAs and/or could indirectly affect sensitive natural communities in the YLR through the introduction of increased light, noise and activity in the vicinity. With incorporation of applicable CLRDP implementation measures into the MSC Projects, this impact would be less than significant.

c) The MSC Projects EIR (3.4-45 to -48) determined that certain Project activities (wetland restoration as part of SRP Phase 1A, reinforcement of a storm water outflow west of McAllister Way, and a pedestrian trail along the campus' east margin) could result in minor disturbance to and fill into wetlands. This potentially significant impact would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measures BIO-12A through BIO-12D, which defines design, construction-phase, and post-construction requirements for those Project elements.

d) The MSC Projects EIR (3.4-42 to -44) determined that new fencing to be installed west of McAllister Road could potentially hinder the movements of CRLF, western pond turtles and other wildlife into and out of the area immediately surrounding Younger Lagoon such that vulnerability to predation would be increased. In addition, project construction traffic along roadways could increase CRLF barriers to movement into upland habitat and susceptibility to death by road-kill. This is a potentially significant impact which would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measures BIO-10A through BIO-10C, which specify design parameters for new fencing, prohibition of night parking in terrace portions of the YLR, and limitations on night-time construction.

The MSC Projects EIR (3.4-44 to -45) determined that greenhouse lighting could adversely affect movements of nocturnal mammals and roosting birds in the YLR if night lighting is spilled into this area. This potentially significant impact would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measure BIO-11, which requires shading on the walls and roofs of the greenhouses.

e) The MSC Projects EIR (3.4-28 to -30) analyzed the potential that clearing and revegetation of the construction staging area north of the CBB could result in reintroduction of invasive and non-native plants that could spread to the YLR, which would be inconsistent with the goals of the CLRDP with respect to protection and restoration of native vegetation. This impact would be

reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measures BIO-2A through BIO-2C, which specifies measures to be used for re-seeding, monitoring, and maintaining the staging area after construction.

The MSC Projects EIR (3.4-50 to -51) also identifies elements of the MSC Projects which would be inconsistent with some biological resources provisions of the CLRDP. These minor inconsistencies would be rectified by proposed CLRDP Amendment #1, which revises the CLRDP land use map to reflect 2011 updates to the wetland delineation. Specifically, the expansion of wetlands W2 and W3 in the upper terrace and the expansion of the associated buffers, resulted in changes to the area of Development Subarea 1. The footprint of the proposed Upper Terrace staging area and Storage Yard, which is an element of the MSC Project, was reduced to conform with the updated wetland buffer margins. With adoption of CLRDP Amendment #1, the impact would be less than significant.

f) There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other habitat conservation plan which is applicable to the campus.

**Effect of Project Changes on the Previous Environmental Analysis**

The proposed parking lot E site has already been disturbed to develop a construction staging area. The area that would be disturbed outside the existing Seymour Center parking lot is within the potential area of disturbance included in the biological resources assessments prepared in support of the MSC Projects EIR. Therefore, the proposed additional parking lot construction would not result in impacts to biological resources which were not analyzed in the MSC Projects EIR. Therefore, all of the potential biological resources impacts of the additional parking lot construction would be less than significant with implementation of the CLRDP implementation measures and CLRDP EIR and MSC Projects mitigation measures listed above.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant impacts to biological resources or increase the severity of a previously identified impact, and no changed circumstance or new information is present that would alter the conclusions contained in the prior CEQA documentation. No Project revisions or additional mitigation measures are required and the prior environmental analysis is sufficient and comprehensive to address biological resources impacts of the Project Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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**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?

- |  |                          |                                     |
|--|--------------------------|-------------------------------------|
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries?                                 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Relevant Features of the Project**

Before it was cleared as a staging area for construction of the MSC Projects in May 2015, the site was undeveloped coyote brush-grassland and ruderal habitat. The site was prepared for use as a construction staging/laydown area, by removing brush and laying down 8 inches of drain rock over filter fabric.

The expansion of the Seymour Center parking lot would disturb an area of approximately 16,000 sf of land, including and a berm that is vegetated with non-native grasses and forbs and planted native shrubs and non-native Monterey cypress trees.

The following CLRDP EIR or MSC Projects EIR mitigation measures and/or CLRDP implementation measures related to cultural resources were adopted as part of the Mitigation Monitoring Program for the CLRDP and are applicable to the proposed additional parking lot construction. The complete text of the CLRDP implementation measures and notes about project compliance are provided in Appendix A. The complete text of the mitigation measures is included in Appendix B. These requirements are incorporated into the existing construction contract and therefore will apply to the proposed additional parking lot construction.

**Implementation Measure 3.9.1** Construction Monitoring for archaeological and paleontological resources.

**CLRDP EIR Mitigation 4.5-1** Measures to be taken in case human remains are discovered during construction.

**Previous Analysis**

a-d) The MSC Projects EIR (pp. 3.6-10 to -13) determined that, based on the results of previous archaeological surveys and the low paleontological sensitivity of the geologic formations that under lie the campus, the potential for encountering buried archaeological resources, human remains, or paleontological resources during construction is slight. Notwithstanding, the CLRDP EIR Project Specific Mitigation Measure 4.5-1 and CLRDP Implementation Measure 3.9.1, which specify the steps to be taken in the event of unexpected discovery of archeological or paleontological resources or human remains, the impact would be less than significant. Project construction would further alter a segment of the historic Ocean Shore Railroad which coincides with the existing Delaware Avenue Extension, and could obliterate undiscovered features that retain the identity of the site as a railroad line. This impact would be less than significant because the roadway marking the route is apparently all that remains of the site, and therefore the feature does not appear to meet the eligibility criteria of the California or National register of historic places. Nonetheless, the MSC Projects EIR identifies MSC Projects Mitigation Measures CULT-

2A and CULT-2B, requiring archaeological monitoring during road ripping along the Delaware Avenue Extension and installation of an interpretive sign commemorating the history of the Ocean Shore Railroad.

**Effect of Project Changes on the Previous Environmental Analysis**

a-d) The proposed construction in the new parking lot E and the Seymour Center parking lot would not impact native soils other than in areas covered by previous archaeological surveys. This construction would not take place in the vicinity of any known archaeological or historical resources. CLRDP EIR Project Specific Mitigation Measure 4.5-1 and CLRDP Implementation Measure 3.9.1 are applicable to the proposed construction activities. Therefore, these changes to the MSC Projects would not result in new significant impacts related to cultural resources.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant impacts on cultural resources or increase the severity of a previously identified impact, 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 Projects Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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**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.

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

b) Result in substantial soil erosion or the loss of topsoil?

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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?		
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 checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Relevant Features of the Project**

The new parking lot E would cover an area of approximately 32,000 sf and provide 91 parking spaces. The parking lot would be surfaced with TrueGrid permeable pavers over crushed aggregate. The proposed Project Changes would expand the existing Seymour Center parking lot by approximately 16,000 sf and reconfigure it to add 55 additional spaces. The entrance to the parking lot would be moved to the north, to align with the entrance to the Center for Ocean Health parking lot on the other side of McAllister Way. The parking spaces would be surfaced with TrueGrid permeable pavers over crushed aggregate. In the existing drive aisles, most of the existing road section would be retained and the top lift of asphalt would be replaced or an overlay of asphalt added. The existing berm would be reconstructed in the remaining available space between the parking lot and the trail. Grading for the Project would result in a net excess of 1,400 cy of soil.

There are no CLRDP EIR or MSC Projects EIR mitigation measures and/or CLRDP implementation measures related to geology and soils that applicable to the proposed additional parking lot construction.

**Previous Analysis**

a-e) The MSC Projects EIR determined (pp. 3.7-7 to -11) that all impacts of the MSC Projects related to geology and soils would be less than significant because there are no known active faults on the campus and the proposed new facilities would be in locations that are not susceptible to slope failure; the new buildings, roads, and parking lots would be designed and constructed in accordance with provisions of the California Building Code and the recommendations of project geotechnical studies; and the construction contractor would be required to comply with the construction measures included in Campus Standards Handbook, the SWMP, and the NPDES requirements.

**Effect of Project Changes on the Previous Environmental Analysis**

a-e) The proposed new parking lot E and modifications to and expansion of the Seymour Center parking lot would not involve construction in areas that are susceptible to slope failure, and, following standard campus procedures, the parking lots would be designed and constructed in accordance with provisions of the California Building Code and the recommendations of project geotechnical studies. Therefore, these changes to the MSC Projects would not result in new significant impacts related to geology and soils or an increase in the severity of previously identified impacts.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant impacts related to geology and soils or increase the severity of a previously identified impact, 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 Changes.

	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
Issues		

**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?
  
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of greenhouse gases?

**Relevant Features of the Project**

The parking lot construction and modifications would require minor grading, and some earth-moving to move the existing berm at the Seymour Center lot and construct a new berm at the proposed parking lot E. The total area of disturbance would be approximately 2 acres.

The proposed changes to the MSC Projects would not result in an increase in vehicle trips to the campus and would not involve any new stationary sources of greenhouse gas emissions (GHGs).

There are no CLRDP EIR or MSC Projects EIR mitigation measures or CLRDP implementation measures related to greenhouse gas emissions that are applicable to the proposed additional parking lot construction.

a, b) The MSC Projects EIR estimated construction-related emissions of carbon dioxide (CO<sub>2</sub>) for all the MSC Projects using URBEMIS2007, a land-use and transportation-based computer model designed to estimate regional air emissions, including CO<sub>2</sub> from new development projects.

URBEMIS2007 was also used to estimate operational emissions of GHGs, including direct emissions from natural gas combustion for space and water heating, and in emergency and standby generators, and mobile sources (vehicle trips associated with the projects), and indirect emissions due to the consumption of electricity generated off site, water treatment and distribution, wastewater treatment, and solid waste generation. Adjustments were made to the URBEMIS2007 emission calculations to account for emissions of other global warming compounds (methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O)).

Because the Monterey Bay Unified Air Pollution Control District (MBUAPCD) has not established significance thresholds for GHG emissions, the estimated project emissions were compared to the GHG significance threshold developed by the neighboring Bay Area Air Quality Management District (BAAQMD). Direct and indirect emissions associated with operation of the CBB Project were compared with the BAAQMD's threshold of significance for land-use projects, which is 1,100 MTCO<sub>2</sub>e per year. Emissions from stationary sources were compared with the threshold for stationary sources, which is 10,000 MTCO<sub>2</sub>e per year.

The MSC Projects EIR (p. 3.5-20) estimated the total stationary source emissions associated with the MSC Projects at 263 MTCO<sub>2</sub>e/year, which is below the threshold of 10,000 MTCO<sub>2</sub>e/year for stationary sources. The total operational emissions from area, mobile and indirect sources were estimated at 982 MTCO<sub>2</sub>e/year, which is below the significance threshold of 1,100 MTCO<sub>2</sub>e/year. Therefore, the MSC Projects would not conflict with the state's ability to achieve the reduction targets under AB 32. The CBB Project would also incorporate several sustainability and GHG reduction measures, as required by UC's commitment to both internal and ACUPCC reduction targets. These measures would reduce energy consumption and vehicle traffic to the extent possible, thus ensuring that the Projects would not hinder efforts to achieve GHG emissions reductions required under AB 32. For these reasons, the potential impacts of the proposed MSC Projects on climate change would be less than significant.

#### **Effect of Project Changes on the Previous Environmental Analysis**

a.b) The proposed additional parking lot construction would result in a small increase in the construction-related GHG emissions associated with the MSC Projects as analyzed in the MSC Projects EIR. The new parking spaces would not generate an increase in operational vehicle trips to the campus or add new stationary emissions sources and therefore would not increase the operational emissions of GHG analyzed in the EIR. Since the Monterey Bay Unified Air Pollution Control District (MBUAPCD) has not established significance thresholds for GHG emissions, the MSC Projects EIR compared the estimated project emissions to the GHG significance threshold developed by the neighboring Bay Area Air Quality Management District. These are the most conservative (that is, the most stringent) of the available numeric thresholds that have been developed by various air pollution control districts throughout California. The BAAQMD does not specify a threshold for construction GHG emissions. The additional construction would be subject to applicable UCSC and CLRDP sustainability requirements, including the standard construction contract requirement to divert at least 75 percent of construction waste from landfill disposal. Therefore, the change in the MSC Projects to include the parking lot construction does not require a change to the conclusions of the EIR with respect to GHG emissions.

#### **Conclusions**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant climate change impacts on cultural resources or increase the severity of a previously identified impact, 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 climate change impacts of the Project Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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**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 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 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 proposed school?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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 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 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 checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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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?

**Relevant Features of the Project**

The new parking lot E would cover an area of approximately 32,000 sf and provide 91 parking spaces. Access to the lot from McAllister Way would be off of the loading dock area of the new CBB facility. A paved pedestrian path leading off the southeast corner of the new parking lot E would connect to the paved pathway at the northeast corner of CBB. Another paved pathway at the southwest corner of the lot would connect to the sidewalk along McAllister Way.

The proposed Project Changes would expand the existing Seymour Center parking lot by approximately 16,000 sf and reconfigure it to add 55 additional spaces. The entrance to the parking lot would be moved to the north, to align with the entrance to the Center for Ocean Health parking lot on the other side of McAllister Way. Three ADA-compliant accessible parking spaces would be included in the southeast corner of the lot. A concrete path would provide barrier-free access from these spaces to Overlook A.

There are no CLRDP EIR or MSC Projects EIR mitigation measures and/or CLRDP implementation measures related to hazards and hazardous materials that are applicable to the proposed additional parking lot construction.

**Previous Analysis**

a,b) 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 MSC Projects EIR (pp. 3.8-10 to -12) determined that the proposed CBB Project would result in an increase in the use, storage, and disposal of petroleum products and hazardous materials on the campus, and a slight increase in the risk of accidental spillage of hazardous materials at the MSC. This increase in hazardous materials use, storage and disposal would not exceed that analyzed in the CLRDP EIR. Therefore, the impact would be less than significant.

c) The CLRDP 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). According to the MSC Projects EIR, no new public or private elementary, middle, or high schools had been developed within ¼ mile of the MSC since the CLRDP EIR was certified in 2004. The increased use of hazardous materials associated with the MSC Projects was taken into account in the CLRDP

EIR. Therefore, the MSC Projects EIR (pp. 3.8-12) determined that the MSC Projects would not result in hazardous emissions or the handling of hazardous or acutely hazardous materials within ¼ mile of a school.

d) A search of government records on hazardous waste sites in the vicinity of the MSC performed for the CLRDP EIR revealed that the project site is not listed as a contaminated site on any of the databases searched (CLRDP EIR p. 4.7-19). The pesticides dieldrin, and DDT and its breakdown products are present in the surficial soils at the MSC. Based on the results of two health risk assessments, the CLRDP EIR determined that the risk to human health posed by the residual pesticides measured in the soil at the Marine Science Campus is well below normally accepted values. The MSC Projects EIR (pp. 3.8-12 to -13) determined that the proposed MSC Projects and the project sites would be within the CLRDP development program and area of disturbance analyzed in the CLRDP EIR. Therefore, the development of the new facilities would not result in a significant health risk associated with exposure of future site occupants to residual pesticides in the site soils. The MSC Projects EIR determined that the campus practice of conducting surveys for potential lead paint and asbestos-containing materials in buildings that are planned for demolition or remodeling, and compliance with federal, state, and local laws and regulations would minimize the potential that that demolition of the existing greenhouses as part of the proposed CBB Project would expose construction workers and campus occupants to contaminated building materials. Therefore, the potential risks associated with developing the new facilities on contaminated soil and with demolition of existing facilities that may contain lead paint and/or asbestos, would be a less-than-significant impact.

e-f) The Marine Science Campus is not located within 2 miles of public airport or private airstrip. Therefore, the CLRDP EIR determined that no impact with respect to risk from or to air overflight would occur (CLRDP EIR p 4.7-19), and the MSC Projects EIR does not include an analysis of safety hazards associated with airports.

g-h) The MSC Projects EIR 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 (MSC Projects EIR pp. 3.8-13 to -14).

#### **Effect of Project Changes on the Previous Environmental Analysis**

a-c) Construction and operation of the proposed parking lot E and expanded Seymour Center parking lot would not result in additional use of hazardous materials other than materials which are routinely used in construction and site maintenance.

d) The proposed parking lot construction and expansion would be within the development program and area of disturbance analyzed in the CLRDP EIR. Therefore, the proposed additional parking lot construction would not result in exposure of construction workers or campus occupants to risks associated with contaminated soil not previously analyzed in the MSC Projects EIR.

e-f) There are no new public airports or private airstrips within 2 miles of the campus. No new impact would occur.

g-h) The additional parking lot construction would not result in additional road closures or otherwise interfere with any emergency response plans. The construction and operation of parking lots would not create any new wildland fire hazard or exacerbate the existing hazard.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant impacts related to hazards resources or increase the severity of a previously identified impact, 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 hazards impacts of the Project Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
<b>8. HYDROLOGY AND WATER QUALITY --</b> Would the project:		
a) Violate any water quality standards or waste discharge requirements?	<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 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 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 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 checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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 checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<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 checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Relevant Features of the Project**

**Parking lot E**

The proposed new parking lot E would be located Drainage Basin 4 as defined in the CLRDP Drainage Concept Plan (CLRDP Appendix D). Basin 4, which encompasses 17.9 acres on the central and western portions of the Middle Terrace, is the largest of the 11 basins on the MSC. This basin drains by overland flow toward a wetland area (wetland W4) in the southeast corner of the basin. An 18-inch, corrugated-metal culvert on the eastern end of wetland W4 discharges to the De Anza Santa Cruz residential community’s storm drain system. This culvert extends for a short distance beneath the residential neighborhood and then empties into a pond and creek that eventually flows to the ocean.

As analyzed in the MSC Projects EIR, the CBB lab building and approximately half of the adjacent Parking Lot D (south of the CBB) would be constructed in Basin 4. Most of the new entrance road and the northern portion of the new Central Campus Trail would also be constructed in Basin 4. Runoff from the roof of the CBB lab building would flow to a series of bioretention ponds surrounding the building and in the courtyard. Filtered runoff from the bioretention ponds would drain to vegetated swales and from these features to a storm water basin south and east of the new building. Runoff from the portion of the new campus entrance road which is in Basin 4 would flow to a vegetated swale parallel to the road, which would in turn drain to the vegetated swale along the north side of the CBB lab building. Runoff from the Central Campus Trail would flow toward a vegetated swale parallel to the trail, which would drain to the CBB storm water basin. Runoff from Parking Lot D would infiltrate to the subsurface through pervious pavement or flow to a vegetated swale in the middle of the lot. Overflow from the eastern end of this vegetated swale would flow east and discharge through a box culvert to the wetland W4 buffer.

A series of infiltration trenches within the storm water basin south and east of the CBB lab building would penetrate the clayey surface soils and allow runoff to filter into the more permeable

terrace deposits underneath. A 10-inch discharge pipe would drain overflows from the basin to the Resource Protection Buffer surrounding wetland W4, from which it would infiltrate into the subsurface or flow overland to wetland W4.

The proposed new parking lot E would cover an area of approximately 32,000 sf in Basin 4, and would provide 91 parking spaces. Before it was cleared as a staging area for construction of the MSC Projects in May 2015, the proposed parking lot E site was undeveloped. The site was prepared for use as a construction staging/laydown area, by removing brush and laying down 8 inches of drain rock over filter fabric. The parking lot would be surfaced with TrueGrid permeable pavers over crushed aggregate. The paving system would provide detention of storm water; the runoff would flow beneath the pavement surface to vegetated swales which would discharge to the vegetated storm water basin east of the CBB Building, which is being developed as part of the CBB Project. A new trench drain would be installed across the driveway to maintain the connectivity of the drainage swale along the southern edge of the site (north of the CBB lab building). A paved pedestrian path leading off the southeast corner of the new parking lot E would connect to the paved pathway at the northeast corner of CBB. Another paved pathway at the southwest corner of the lot would connect to the sidewalk along McAllister Way.

### **Seymour Center Parking Lot Expansion**

The existing Seymour Center parking lot is situated within Basin 9, which is a 6.4-acre area on the Lower Terrace of the campus that contains the original Long Marine Lab buildings, the Ocean Health Building, and the Seymour Marine Discovery Center facilities. Runoff from this basin drains to the campus' piped filtered seawater discharge system via an engineered treatment unit. A small detention pond to the south of the Seymour Marine Discovery Center serves to attenuate peak flows from this building before they are discharged to the engineered treatment and seawater return systems. As analyzed in the MSC Projects EIR, new development in Basins 9 and 10 would be limited to trail improvements.

The proposed parking lot expansion area is within Basin 10, which covers 4.0 acres and extends to the coastal bluff on the south and is bounded on the east and north by Basin 11 and Basin 6, respectively. Both Basin 10 and Basin 11 drain by overland flow to the coastal cliff, but small depressions in both basins hold water during storms, forming wetlands W10 and W12. Wetland W10 is a small (4 sf) wetland adjacent to the eastern property line in Basin 11. W12 is a complex of small wetlands south and east of the W5, with a total area of approximately 0.21 acre. Drainage from Basins 10 and 11 cause minor erosion and gullyng at various points along the coastal bluff.

The Seymour Center parking lot covers an area of approximately 0.9 acre and is paved with asphalt. The proposed Project Changes would expand the parking lot to incorporate an existing vegetated berm and the land between the berm and the trail, an area of approximately 16,000 sf. The parking spaces would be surfaced with TrueGrid permeable pavers over crushed aggregate. In the existing drive aisles, most of the existing road section would be retained and the top lift of asphalt would be replaced or an overlay of asphalt added. The existing berm would be reconstructed in the remaining available space between the parking lot and the trail. A concrete path would provide barrier-free access from these spaces to Overlook A.

The following CLRDP implementation measures related to hydrology and water quality were adopted as part of the Mitigation Monitoring Program for the CLRDP and are applicable to the proposed additional parking lot construction. The complete text of these requirements and an explanation of the project consistency with these measures is included in Appendix A.

IM 2.3.2 Impervious Coverage

IM 3.1.2 Discharge of Drainage/Stormwater

IM 3.5.3 Protection of YLR Resources

IM 3.5.7 Movement Not Visible From YLR (Original YLR)

IMS 7.1.1 through 7.1.6, 7.10 Performance Specifications for Storm Water Management Systems

IM 7.1.13 Permeable Hardscape

IM 7.1.14 Ocean Discharge

IM 7.1.15 Drainage System Interpretive Signs

IM 7.1.17 Designation of Treatment Train

IM 7.3.2 Discharge Siting and Design

### **Previous Analysis**

a,f) The MSC Projects EIR (pp. 3.9-21 to -23) analyzed the potential that the new roadway, driveways, parking lots, and buildings that would be developed under the proposed MSC Projects would create new sources of urban pollutants such as oil and grease, heavy metals, and sediment, which could potentially enter storm water runoff and degrade the water quality in the wetlands on the MSC, in Younger Lagoon, or in the Pacific Ocean. The EIR determined that the impact would be less than significant because the design of the projects and campus operations would comply with the water quality requirements of the CLRDP, including operational source controls; the full range of natural storm water natural storm water treatment features prescribed by the Drainage Concept Plan, including bioretention areas, vegetated filter strips and swales, and a vegetated storm water basin with infiltration trenches; the use of treatment system criteria specified in the Drainage Concept Plan; and the monitoring and maintenance programs required by the CLRDP.

b) The MSC Projects EIR (pp. 3.9-23 to -27) analyzed the potential that the addition of new impervious surface associated with the CBB lab building, the new greenhouse complex, road and sidewalk, parking lots, and utility and storage yards, would reduce the infiltration of surface water into the local perched aquifer and thereby reduce water supply to wetlands or seeps along the bluffs. The EIR determined that, with the use of natural drainage systems required by the CLRDP, including bioretention areas, vegetated swales, and infiltration trenches in the CBB storm water basin, the increase in impervious surface that would be added by the MSC Projects would not result in adverse effects on wetland hydrology. The EIR identifies MSC Projects Mitigation HYD-2, which requires monitoring of water levels in the root zones in wetlands W4 and W5, to further reduce the less-than-significant impact of the increase in impervious surface.

The MSC Projects EIR (pp. 3.9-27 to -28) also analyzed the potential that the new, deep sewer trench in the new campus roadway could intercept groundwater flowing from Basin 2 toward Basin 4, which could alter the groundwater flow regime within Basin 4 and potentially reduce the subsurface flow toward wetland W4. The EIR determined that this potentially significant impact would be reduced to a less-than-significant level with implementation of MSC Projects Mitigation Measure HYD-3, which requires that, where the new sewer line extends below the bedrock surface, concrete trench plugs that will act hydraulic barriers to groundwater flow shall be installed in the trench. The mitigation measure also requires the use of permeable materials as backfill between the top of bedrock and the pavement section.

c,d,e) The MSC Projects EIR (pp. 3.9-28 to -29) analyzed the potential that the addition of impervious surface associated with the proposed new development could increase surface runoff to Younger Lagoon, the ocean, and terrace wetlands, causing erosion in drainage channels and siltation in receiving waters. The EIR determined that, as demonstrated by the runoff calculations for the project, the impact would be less than significant with implementation of CLRDP requirements for storm water management, which would ensure that peak flow rates would not increase for any discharge point.

g,h,i,j) The MSC Projects EIR (pp. 3.9-30 to -33) determined that the proposed projects would not result in hazards related to construction in a flood plain, or inundation by tsunami, seiche, or mudflow because the campus is not in a 100-year flood zone, a tsunami hazard zone, and is situated on a flat site that is 40 feet above sea level.

#### **Effect of Project Changes on the Previous Environmental Analysis**

a-f) The proposed permeable pavement system in the new parking lot spaces and in the existing spaces in the Seymour Center parking lot would provide detention of storm water. Storm water from the new parking lot E would flow under the surface of the parking lot to new vegetated swales which would drain to the vegetated storm water basin east of the CBB Building. The storm water basin is designed to allow storm water to infiltrate to the subsurface, thereby maintaining existing groundwater recharge and flow patterns. Runoff from the Seymour Center parking lot would continue to flow to the campus' piped filtered seawater discharge system via an engineered treatment unit. For these reasons, the additional parking lot construction would not result in new significant water quality or groundwater impacts which were not analyzed in the MSC Projects EIR.

g,h,i,j) The additional parking lot construction would not place any structures in a 100-year flood zone, a tsunami hazard zone, or on a site that is susceptible to mudflow, and therefore would not result in a new significant impact related to any of these hazards.

#### **Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant impacts related to hydrology and water quality or increase the severity of a previously identified impact, 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 and water quality impacts of the Project Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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**9. LAND USE AND PLANNING** -- Would the project:

- |   |                          |                                     |
|---|--------------------------|-------------------------------------|
| a) Physically divide an established community?  | <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 checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Create other land use impacts?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Relevant Features of the Project**

The proposed parking lot E would be located in the Middle Terrace development zone of the Coastal Science Campus. Before it was cleared as a staging area for construction of the MSC Projects in May 2015, the site was undeveloped. The site is located on the east side of McAllister Way, immediately north of the new Coastal Biology Building, an academic laboratory and office building, and across the street from a new parking lot which is being constructed as part of the CBB Project.

The Seymour Center parking lot is located in the Lower Terrace development zone. The existing lot is bounded by McAllister Way on the west, the Seymour Marine Discovery Center building on the south, and a 3-foot-high landscaped berm on the north and east. The proposed Project Changes would expand the existing Seymour Center parking lot by approximately 16,000 sf and reconfigure it to add 55 additional spaces. The entrance to the parking lot would be moved to the north, to align with the entrance to the Center for Ocean Health parking lot on the other side of McAllister Way. The existing berm would be reconstructed in the remaining available space between the parking lot and the trail.

The following CLRDP implementation measure related to land use was adopted as part of the Mitigation Monitoring Program for the CLRDP and is applicable to the proposed additional parking lot construction. The complete text of this measure and an explanation of the project's consistency is included in Appendix A.

IM 2.3.4 Buildout Planning

**Previous Analysis**

a-c) The MSC Projects (pp. 3.10-9 to -11) determined that the CBB and MSC Projects (removal of informal parking along McAllister Way) would be inconsistent with CLRDP IM 5.3.7, which requires that all parking demand be satisfied on campus, in support of Coastal Act provisions that seek to protect public coastal access. The impact would be less than significant with: 1) amendment of CLRDP IM 5.3.7 to eliminate the requirement that all parking demand be satisfied on campus and add a requirement that CLRDP development does not impact public parking or coastal access on or off campus; and 2) implementation of MSC Projects Mitigation Measures TRA-1A through-1C, which would reduce campus trip generation; provide for monitoring of campus-related parking demand; and identify a threshold of use of 80 percent of parking capacity along the blocks of Delaware and Shaffer adjacent to the campus entrance; and require that the campus implement additional measures (such as campus shuttles) to reduce parking demand if parking occupancy exceeds this threshold.

The MSC Projects EIR determined that the proposed projects would be consistent with the CLRDP land use, locational and other development restrictions, and building program; and that the projects would be compatible with existing and planned uses on land uses in areas surrounding the campus.

**Effect of Project Changes on the Previous Environmental Analysis**

a-c) As discussed in Section V, above, the proposed parking lot E and the expansion of the Seymour Center parking lot are consistent with the CLRDP land use plan. Both the Seymour Center parking lot and the proposed parking lot E would be sited in locations designated as major parking locations on CLRDP Figure 5.5 and therefore would not result in land use impacts that were not previously analyzed in the MSC Projects EIR.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant impacts related to land use or increase the severity of a previously identified impact, 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 Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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**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?

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 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 expose people residing or working in the project area to excessive noise levels?	<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 checked="" type="checkbox"/>

**Relevant Features of the Project**

The University is proposing to construction the new parking lot E and expand the Seymour Center parking lot in conjunction with the ongoing construction of the MSC Projects. The parking lot construction would entail minor grading, and some earth moving to move the existing berm at the Seymour Center lot and construct a new berm at the new parking lot E. Construction would take place following the completion of all other site work for the MSC Projects but would overlap with interior construction of the CBB lab building and greenhouses. The new parking lot spaces would not generate additional vehicle trips to the campus or other sources of operational noise.

The additional parking lot construction would overlap with building construction at the CBB lab building and greenhouses. And minor grading and paving of trails throughout the campus.

The following CLRDP EIR or MSC Projects EIR mitigation measures and/or CLRDP implementation measures related to noise were adopted as part of the Mitigation Monitoring Program for the CLRDP and are applicable to the proposed additional parking lot construction. The complete text of these measures and an explanation of project consistency with them is included in Appendix A.

IM 3.4.2 Noise Intrusion into Terrace ESHA

IM 3.4.3 Noise Intrusion into YLR (original YLR)

### **Previous Analysis**

a-d) The MSC Projects EIR analyzed the potential noise impacts at the De Anza Santa Cruz residential community east of the campus and at the apartment buildings on the east side of Shaffer Road north of the railroad tracks. Construction noise impacts were estimated using eleven different scenarios, each scenario representing a likely combination of overlapping activity and equipment mix as each of the projects is constructed. The EIR also analyzed the impacts of operational noise, including noise from building mechanical equipment, stand-by and emergency generators, and project-related vehicle trips.

The MSC Projects EIR (pp. 3.11-11 to -13) determined that, without feasible noise reduction measures such as those included in CLRDP EIR General Mitigation 4.11-1, residents of the De Anza Santa Cruz residential community could be exposed, during construction, to temporary noise levels exceeding the applicable significance thresholds. The highest noise levels would occur in the early stages of construction, when demolition and grading associated with the CBB Project (an average of 516 feet from the residential receptors) and excavation and grading for the new campus road and other infrastructure (an average of 221 feet from the receptors) would coincide. Specifically, grading of the De Anza trail along the eastern edge of the campus could result in temporary construction noise levels exceeding the significance threshold because of the trail's proximity to the adjacent residential community. With implementation of CLRDP EIR General Mitigation 4.11-1, which is applicable to and included in all of the proposed MSC Projects, and taking into account the existing cinder block wall along the eastern edge of the campus, all construction noise impacts would be less than significant.

The analysis of operational noise (pp. 3.11-13 to -15) determined that the MSC Projects would not result in a perceptible change in noise levels at the sensitive receptors and would not exceed the noise level of 60 dBA CNEL set by the CLRDP for the original Younger Lagoon Reserve. Based on the analysis in the CLRDP EIR, the MSC Projects EIR also determined that the additional vehicle trips generated by the MSC Projects also would not result in a significant increase in traffic noise on nearby city streets.

e,f) The MSC Projects EIR did not analyze noise impacts related to airplane noise because the MSC is not located within an airport land-use plan or within 2 miles of any airport or airstrip.

### **Effect of Project Changes on the Previous Environmental Analysis**

a-d) The additional parking lot construction would result in temporary noise associated with construction activities. The MSC Projects EIR analysis of construction noise assumed that grading for the trail improvements would take place in the early stages of construction, along with grading and excavation for the new buildings, new campus road, and associated infrastructure. However, the contract schedule has moved the trail improvements out to the final stages of infrastructure construction, between July and September 2016. Therefore, the additional parking lot construction would overlap with interior construction of the CBB building and with minor grading associated with trail improvements throughout the campus. All other grading and all excavation and other relatively noisy building construction work, including foundations and steel frame, would be completed by the time the additional parking lot construction begins. The additional parking lot construction would be approximately 500 feet from the nearest residential receptors. The noise levels at the residential receptors from grading for the additional parking lots in conjunction with the minor grading for trail construction would be lower than the worst case analyzed in the MSC Projects EIR. The noise mitigation requirements specified in CLRDP EIR General Mitigation 4.11-1 are incorporated into the construction contract and therefore would apply to the additional

parking lot construction. Therefore, the additional parking lot construction would not result in construction noise impacts exceeding those analyzed in the MSC Projects EIR.

Although the additional parking lot construction would not result in an increase in the number of trips to the campus, the provision of additional parking spaces could result in an increase in vehicles travelling onto the campus to park rather than parking off-campus on nearby city streets, on Delaware Avenue and Shaffer Road. However, the noise analysis in the MSC Projects EIR assumed that all new daily trips associated with the MSC Projects would enter the campus. Therefore, the construction of the additional parking spaces would not result in an exacerbation of the less-than-significant traffic-related noise impacts identified in the MSC Projects EIR. The additional parking lot spaces would not result in other operational sources of noise.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant noise impacts or increase the severity of a previously identified impact, 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 Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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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)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Relevant Features of the Project**

The proposed new parking lot E and the expansion of the Seymour Center parking lot would not result an increase in population at the campus.

There are no CLRDP EIR or MSC Projects EIR mitigation measures or CLRDP implementation measures related to population and housing that are applicable to the proposed additional parking lot construction.

**Previous Analysis**

a) The CLRDP EIR (p. 3.12-9) estimated that population growth related to development under the CLRDP would represent 1.6 percent of City of Santa Cruz residents and less than 0.3 percent of County residents in 2000. The CLRDP EIR determined that this growth would not be substantial. development of infrastructure to support the CLRDP program of development would be within the existing MSC. Therefore, the CLRDP would not indirectly induce substantial population growth or concentration through the provision of roads and infrastructure. The MSC Projects EIR (pp. 3.12-9 to -10) determined that the projected population associated with the CBB project is within the projected population growth analyzed in the CLRDP EIR; furthermore, only about six of the employees working in the new facilities would be new University hires. The CBB student population would not represent an increase in projected UC Santa Cruz student enrollment, but would be a small part of the total UC Santa Cruz enrollment, whether considered as a portion of the enrollment included in UC Santa Cruz' 2005 Long Range Development Plan and analyzed in the previously approved LRDP EIR, or as a portion of the population considered in UCSC's previously approved CLRDP and analyzed in the CLRDP EIR. In addition, the analysis of cumulative population and housing impacts in the MSC Projects EIR (pp. 3.12-11 to -15) determined that the small contribution of the MSC Projects to County population and to cumulative population growth would not be cumulatively considerable and the impact would be less than significant. Based on the analysis of the cumulative physical environmental effects of the Projects in conjunction with other planned development, the EIR also determined that the Projects' would not make a cumulatively considerable contribution to the indirect environmental effects of cumulative population growth, including the demand for housing and other facilities to support the new population.

b,c) As analyzed in the MSC Projects EIR, the MSC Projects would not remove any housing or displace any people. No impact would occur.

**Effect of Project Changes on the Previous Environmental Analysis**

The proposed additional parking lot construction would not result in an increase in campus population and would not remove any housing or displace any people and therefore would not result in significant population and housing impacts which were not previously analyzed in the MSC projects EIR.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant population and housing impacts or increase the severity of a previously identified impact, 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 population and housing impacts of the Project Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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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 checked="" type="checkbox"/> |
| b) Police protection?                   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Schools?                             | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Parks?                               | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Other public facilities?             | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Create other public service impacts? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Relevant Features of the Project**

The proposed new parking lot E and the expansion of the Seymour Center parking lot would not result an increase in population at the campus.

There are no CLRDP EIR or MSC Projects EIR mitigation measures or CLRDP implementation measures related to public services that are applicable to the proposed additional parking lot construction.

**Previous Analysis**

a-f) The MSC Projects EIR (p. 3.13-5 to -10) analyzed whether development under the CLRDP EIR would generate demand for fire protection, police service, schools or libraries that would require the construction of facilities whose construction could have significant adverse environmental effects. The EIR determined that, the project would not result in any significant project-level or cumulative impacts in these areas.

**Effect of Project Changes on the Previous Environmental Analysis**

The proposed parking lot construction would not result an increase in population greater that analyzed in the EIR or the construction of new structures requiring fire protection and police

services and therefore would not result in significant impacts related to public services which were not previously analyzed in the MSC projects EIR.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant public services impacts or increase the severity of a previously identified impact, 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 Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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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 new parking lot E and the expansion of the Seymour Center parking lot would not result an increase in population at the campus, and this development would not construct or remove any recreational facilities.

There are no CLRDP EIR or MSC Projects EIR mitigation measures or CLRDP implementation measures related to recreation that are applicable to the proposed additional parking lot construction.

**Previous Analysis**

a) The MSC Projects EIR (pp. 3.14-4 to -5) determined that the new population associated with the MSC Projects could result in increased use of the informal use of the recreational facilities on the campus and off-site recreational facilities in the immediate vicinity (Antonelli Pond and Natural Bridges State Beach). This demand would be offset by the trail and overlook improvements included in the projects and students' access to the formal and informal recreational facilities on the main campus. Therefore, the demand for recreation facilities associated with the project-related population would not result in deterioration of existing recreation facilities or the need for construction of new facilities and the impact would be less than significant.

b) The MSC Projects would include improvements to the existing network of public trails on the MSC, and would construct new, dedicated public coastal access parking spaces. The MSC Projects EIR (p. 3.14-6) determined that the environmental impacts of constructing these recreational facilities would be less than significant with implementation of the mitigation measures identified in the analyses throughout the EIR of impacts to biological resources, cultural resources, air quality, and water quality.

**Effect of Project Changes on the Previous Environmental Analysis**

a-b) The proposed additional parking lot construction would facilitate public access to the campus trails and the Seymour Center. However, the new parking spaces would also accommodate parking demand associated with the CBB lab building and greenhouses and partly offset the loss of the existing informal parking spaces along McAllister Way, and parking is also available on Delaware Avenue and Shaffer Road near the campus. Therefore, the new parking spaces would not result in a substantial increase in public use of the recreational facilities on the campus that could result in physical deterioration of the facilities. Furthermore, any additional public use facilitated by the new parking would be offset by the trail improvements included in the MSC Projects. For these reasons, the Project Changes would not result in significant impacts related to public services which were not previously analyzed in the MSC projects EIR.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant impacts related to recreation or increase the severity of a previously identified impact, 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 recreation impacts of the Project Changes.

Issues	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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**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?

- 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?
- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e) Result in inadequate emergency access?
- f) Conflict with applicable policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

**Relevant Features of the Project**

The new parking lot E would provide 91 new parking spaces. Access to the lot from McAllister Way would be off of the loading dock area of the new CBB facility. A pay station would be installed near the entrance to the lot. A new trench drain would be installed across the driveway to maintain the connectivity of an existing drainage swale along the southern edge of the site. A paved pedestrian path leading off the southeast corner of the new parking lot E would connect to the paved pathway at the northeast corner of CBB. Another paved pathway at the southwest corner of the lot would connect to the sidewalk along McAllister Way.

The proposed expansion of the Seymour Center parking lot would add 55 new spaces. The entrance to the parking lot would be moved to the north, to align with the entrance to the Center for Ocean Health parking lot on the other side of McAllister Way. Three ADA-compliant accessible parking spaces would be included in the southeast corner of the lot. A concrete path would provide barrier-free access from these spaces to Overlook A. A pay station would be installed in an island at the southern end of the lot.

The following CLRDP EIR or MSC Projects EIR mitigation measures and/or CLRDP implementation measures related to transportation were adopted as part of the Mitigation Monitoring Program for the CLRDP and are applicable to the proposed additional parking lot construction. The complete text of the CLRDP requirements and an explanation of project compliance is included in Appendix A. The complete text of the mitigation measures is included in Appendix B. Project implementation of the applicable mitigation measures is discussed below, under *Effect of Changes to the Project on the Previous Environmental Analysis*.

IM 5.3.2 Public Coastal Access Parking

IM 5.3.5 Lower Terrace Dual Use Parking (Public Coastal Access Parking and Discovery Center Parking)

IM 5.3.6 Lower Terrace Public Coastal Access Parking

IM 5.4.1 Development of New Parking

IM 5.4.3 Distribution and Intensity of Parking

IM 5.7.3 Physical Infrastructure for Transit

IM 6.1.2 Public Access Parking

MSC Projects Mitigation Measure TRA-4: install stop signs at parking lot entrances

MSC Projects Mitigation Measures TRA-5A through TRA-5E: scheduling, coordination and notification requirements to minimize construction impacts on transportation

**Previous Analysis**

a,b) The MSC Projects EIR (pp. 3.15-31) determined that the MSC Projects could generate operational motor vehicle trips in excess of CLRDP trip minimization goals, a potentially significant impact (MSC Projects Impact TRA-1). This impact would be less than significant with implementation of CLRDP implementation measures IM 5.2.2 and IM 5.8.3 to reduce the potential for this impact to occur, and MSC Projects Mitigation Measures TRA-1A through -1C, which specify measures to implement CLRDP trip reduction policies.

c) The MSC Projects EIR does not analyze impacts to air traffic patterns because the closest airport or airstrip to the MSC is several miles distant and there are no low-flying flight paths in the campus vicinity. Development under the CLRDP has no potential to result in impacts with respect to air traffic levels or patterns.

d-f) The MSC Projects EIR (pp. 3.15-40) also determined that traffic generated by operation of the CBB Project and the NEF Project could result in increased potential for conflicts between motor vehicles, pedestrians and bicycles accessing the campus, a potentially significant impact (MSC Projects Impact TRA-3) which would be reduced to a less-than-significant level with previously-adopted CLRDP EIR General Mitigation Measure 4.15-2 (CLRDP EIR p. 4.15-37) and MSC Projects Mitigation Measures TRA-3A and -3B

The MSC Projects EIR also determined that construction of the MSC Projects could impede emergency and routine access to the campus (MSC Projects Impact TRA-5, MSC Projects EIR pp. 3.15-45), a potentially significant impact. This impact would be reduced to a less-than significant level with implementation of MSC Projects Mitigation Measures TRA-5A through -5E, which require coordination of construction activities, communications with affected parties, and restrictions on scheduling of construction work.

The MSC Projects would include alterations of the campus entrance roadway, new parking lots and new pedestrian crossings. This impact with respect to design-related hazards (MSC Projects Impact TRA-4) would be less than significant because all project facilities would be designed consistent with roadway safety standards and CLRDP IM 5.6.5 (crosswalk standards). The Projects incorporate MSC Projects Mitigation Measures TRA-4A and -4B, which require additional stop sign controls at intersections and traffic-calming features in the design of the campus entrance, to further reduce any less-than-significant design hazards (MSC Projects EIR 3.15-43, -44).

The EIR determined that the MSC Projects would not increase potential hazards associated with proximity to and traffic across a railroad line. However, the EIR identifies MSC Projects Mitigation Measures TRA-4C to provide cautionary signage on the campus fence nearest the railroad, to further reduce this less-than-significant impact.

**Effect of Project Changes on the Previous Environmental Analysis**

a,b) The provision of additional parking spaces could result in an increase in vehicles travelling onto the campus to park. However, given the availability of parking off-campus on Delaware Avenue and Shaffer Road, the additional vehicles entering the campus would be using the same city streets they would use to park off campus and walk in. Therefore, the additional parking would not result in an increase in traffic on City streets greater than that analyzed in the MSC Projects EIR.

c) As explained above, development under the CLRDP has no potential to result in impacts with respect to air traffic patterns.

d-f) The additional parking lot construction could result in slightly more vehicles travelling onto the campus than assumed in the MSC Projects EIR and therefore would contribute to the potential for conflicts between motor vehicles, pedestrians, and bicycles. Consistent with MSC Projects Mitigation Measure TRA-4, the entrances to new and expanded parking lots would include stop signs. The expansion of the Seymour Center parking lot would shift the entrance to this parking lot to the north, which would align it with the entrance to the Center for Ocean Health parking lot on the west side of McAllister Way, which would improve the safety of the intersection. The new parking lot E would connect to existing and new sidewalks and the cross walk at McAllister Way. For these reasons, the additional vehicles travelling onto the campus would not result in a new significant impact which was not previously analyzed in the MSC Projects EIR.

The construction of the new parking lot E would not result in road closures beyond those anticipated in the MSC Projects EIR. Furthermore, all construction on McAllister Way and other previously construction requiring road closures would be completed before the additional parking lot construction starts. Expansion of the Seymour Center parking lot would temporarily displace the existing parking in that lot, but the new CBB parking lot, currently under construction, would accommodate the temporary demand. Previously adopted MSC Projects Mitigation Measures TRA-5 through TRA-5E, which require coordination, notifications, and scheduling of construction to minimize potential conflicts between construction-related traffic and road closures and other vehicles, pedestrians and bicyclists are applicable to the additional parking lot construction and would be adequate to reduce these impacts to a less-than-significant level.

**Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant impacts related to transportation or increase the severity of a previously identified impact, 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 transportation impacts of the Project Changes.

Issues	Additional Project- level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
<b>15. UTILITIES AND SERVICE SYSTEMS –</b>		
Would the project:		
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<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 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 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 checked="" type="checkbox"/>
e) Result in a determination by 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<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 checked="" type="checkbox"/>
h) Create other utility and service system impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Relevant Features of the Project**

Electrical service would be extended to the proposed new parking lot E from McAllister Way to provide lighting for the parking lot. As part of the expansion of the Seymour Center parking lot, existing lights would be replaced with high-efficiency LED lights and new lights added. No other utilities would be required at either parking lot.

There are no CLRDP EIR or MSC Projects EIR mitigation measures or CLRDP implementation measures related to utilities that are applicable to the proposed additional parking lot construction.

**Previous Analysis**

a) This checklist question is addressed in Section 6.8, *Hydrology and Water Quality*.

b,e) As analyzed in the MSC Projects EIR (pp. 3.16-18 to -19, and -22 to -23), the existing City water distribution pipelines, wastewater conveyance systems, and wastewater treatment plant have adequate capacity to serve the proposed development. The MSC Projects would include construction of new campus-owned water distribution lines and sewer lines, and relocation of the existing City water meter. These project elements are included in the project as analyzed throughout the EIR; the impacts of construction of these new water and sewer lines would be less than significant with mitigation measures identified in the EIR for impacts to biological resources, cultural resources, air quality and water quality. Furthermore, the increase in wastewater generation at the MSC in conjunction with wastewater generated by other regional development would not result in the need to construct a new wastewater treatment plant, and no cumulative impact would occur.

c) This checklist question is addressed in Section 6.8, *Hydrology and Water Quality*.

d) As analyzed in the MSC Projects EIR (3.16-20 to -21), the CBB Project would result in new water demand which would exacerbate water shortages that may occur in drought years under existing demand conditions. The project-level impact would be less than significant because, under drought conditions, the campus would reduce its use of water from the City in conformance with the curtailments required of other similar users under the City's Water Shortage Contingency Plan. The MSC Projects EIR determined that the MSC Projects would not make a cumulatively considerable contribution to the significant cumulative impacts related to drought-year shortfalls, including the potential impacts of developing a new desalination plant to supplement the Santa Cruz Water District's supply in drought years. Nonetheless, in consideration of the water supply deficit in drought years under current conditions, and the potential that service area demand could exceed supplies after 2020, the campus would implement MSC Projects Mitigation UTIL-9 to support the City's water conservation efforts. Under this mitigation, the campus would conduct a water use efficiency study at the MSC to identify opportunities for water conservation in site operations and facilities, and would implement the top priority improvements, based on the amount of potential water savings and cost effectiveness, within five years of completion of the study.

f,g) As analyzed in the MSC Projects EIR (3.16-23), Project operations would generate approximately 36 tons of solid waste annually. The campus would require the construction contractors hired to construct MSC Projects to divert from landfill disposal a minimum of 75 percent of nonhazardous project construction waste, other than excavated soil and land clearing debris. The CLRDP EIR estimated that development under the CLRDP would generate a total of 470 tons per year of solid waste at full development. The CLRDP EIR determined that because the City's landfill has adequate capacity to accept this amount of waste, and because the University has and would continue to voluntarily comply with state and local statutes pertaining to solid waste through its campus-wide recycling program, implementation of the CLRDP would not result in the need for expansion of the existing landfill or construction of a new landfill. The MSC Projects EIR determined that the projects would not result in a significant impact with respect to solid waste because the amount of waste generated by the projects would be within the amount assumed in the CLRDP EIR, and because UC Santa Cruz has steadily decreased the percentage of its waste stream

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that is sent to landfill disposal, from 76 percent in 2002 to 45 percent in FY 2009-2010, and because the University has and would continue to voluntarily comply with state and local statutes pertaining to solid waste through its campus-wide recycling program, (UC Santa Cruz 2011).

Furthermore, as analyzed in the 2004 CLRDP EIR, the City landfill had a remaining capacity of 58 percent of its total capacity and was not projected to reach capacity until 2037, well beyond the horizon year of the CLRDP. On-going City and UC Santa Cruz campus recycling programs would help to minimize the amount of solid waste disposed of at the landfill. The proposed project is within the scope of the development analyzed in the CLRDP EIR. Therefore, the cumulative impact would not be significant.

h) As analyzed in the MSC Projects EIR (3.16-24 to -27), the MSC Projects would involve construction of new electricity, natural gas, and telecommunications facilities on the campus. The projects would not result in the need to expand off-campus electricity, natural gas or telecommunications services. These project elements are included in the project as analyzed throughout the EIR; the impacts of construction of these new water lines would be less than significant with mitigation measures identified in the EIR for impacts to biological resources, cultural resources, air quality and water quality.

#### **Effect of Project Changes on the Previous Environmental Analysis**

a-h) The additional parking lot construction would include new lighting, which would contribute to the increase in electrical demand associated with the MSC Projects EIR. However, this increase would not result in the need to construct new electrical distribution infrastructure on- or off-campus. The new parking spaces would not result in additional demand for any other utilities. Therefore, the Project Changes would not result in significant impacts associated with utilities which were not previously analyzed in the MSC Projects EIR.

#### **Conclusion**

The proposed expansion of the Seymour Center parking lot and construction of the new parking lot E would not introduce any new significant impacts related to utilities or increase the severity of a previously identified impact, 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 utilities impacts of the Project Changes.

Issues <b>16. MANDATORY FINDINGS OF SIGNIFICANCE</b>	Additional Project-level Impact Analysis Required	Project Impact Adequately Addressed in Earlier Environmental Document
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 checked="" 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 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 checked="" type="checkbox"/>
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b><u>Previous Analysis</u></b>		
a) As discussed in the sections on <i>Biological Resources</i> and <i>Cultural Resources</i> , above, the MSC Projects EIR determined that all biological and cultural resources impacts of the MSC Projects would be less than significant with implementation of previously adopted CLRDP EIR mitigation measures and project-specific mitigation measures identified in the MSC Projects EIR.		
b,c) The MSC Projects EIR determined that the MSC Projects would not result in any significant and unavoidable impacts or make cumulatively considerable contributions to significant cumulative impacts (MSC Projects EIR, Section 1.0).		
d) As summarized in the sections on <i>Air Quality</i> , <i>Hazards</i> , and <i>Noise</i> , above, the MSC Projects EIR determined that all impacts affecting human beings would be less than significant with implementation of previously adopted CLRDP EIR mitigation measures and project-specific mitigation measures identified in the MSC Projects EIR.		

**Effect of Changes to the Project on the Previous Environmental Analysis**

a) As discussed in the sections on *Biological Resources* and *Cultural Resources*, above, the additional parking lot construction would not result in new significant impacts on special-status plants or wildlife, sensitive habitat, or prehistoric resources, or a substantial increase in the severity of previously identified significant effects on these resources.

b-d) As analyzed in relevant sections of this Addendum, the Project Changes would not result in new significant impacts, including those affecting human beings, or an increase in the severity of previously identified significant impacts, and would not cause the MSC Projects to result in a cumulatively considerable contribution to a significant cumulative impact.

**VI. INITIAL STUDY PREPARERS**

Alisa Klaus, UCSC Physical Planning and Construction

**Appendix A**  
**Applicable CLRDP Implementation Measures**

<b>Measure</b>	<b>Description</b>	<b>Project Consistency/Implementation</b>
<b>IM 2.2.1</b> Setback of Development and Uses from Adjacent Agricultural Uses	All caretaker accommodations shall be located no closer than 500 feet from the western MSC property line. All other development and uses shall be located no closer than 300 feet from established crop lines (as shown on Figure 3.15) and no closer than 200 feet from the western MSC property line, whichever is the greater distance, except that existing (i.e., pre-CLRDP certification) development and uses (and/or redevelopment and/or reuse of same, including; minor expansion of the California Department of Fish and Game facility); ancillary unoccupied structures that support research activities; and public access and recreation facilities and features shown in Figure 5.6 and/or described in Section 5.6 in these agricultural setback areas shall be allowed without restriction with respect to agricultural setback. Short-term accommodations may be located in the area between the 300-foot/200-foot setback and the 500-foot setback only if users of such accommodations are prohibited from staying in the accommodations for more than one week at a time.	As discussed in Section V of Addendum #1, the proposed parking lot construction is consistent with CLRDP restrictions on locations, types and intensity of use.
<b>IM 2.3.2</b> Impervious Coverage	At least 30 percent of land area within the Lower and Middle Terrace development zones shall be maintained in a pervious state and free of impervious surfaces. One hundred percent of the land area within the Upper Terrace and MSC Entrance development zones may be developed with impervious surface as long as water quality standards are met.	The new parking lot construction would not increase impervious surface in the Lower or Middle Terrace development zone.
<b>IM 2.3.3</b> Windbreak/Screening Trees	Development sited adjacent to windbreak/screening trees shall include as part of it, installation of and long-term maintenance parameters for the designated windbreak/screening trees.	Windbreak/screening is not required for the additional parking lot construction

Measure	Description	Project Consistency/Implementation
<b>IM 2.3.4</b> Buildout Planning	Development shall not interfere with the ability to site and design future buildings and other development in a manner than can fully conform to the CLRDP, and shall not interfere with the University's ability to meet all commitments identified in the CLRDP.	As discussed in Section V of Addendum #1, the proposed parking lot construction is consistent with CLRDP restrictions on locations, types and intensity of use.
<b>IM 3.1.2</b> Discharge of Drainage/ Storm Water	The MSC drainage system shall be maintained and may be expanded consistent with Section 5.7, provided such maintenance/expansion proceeds in a manner that maintains, enhances, and where feasible restores marine resources.	As discussed in the Addendum, Section VIII, under <i>Hydrology and Water Quality</i> , the storm water drainage systems for the parking lots would be consistent with the CLRDP Drainage Concept Plan.
<b>IM 3.2.9</b> Wetland Buffers	Buffers for wetlands delineated at the time of CLRDP certification shall be as shown on Figure 5.2 and in no case shall they be reduced. For any new wetlands identified and delineated pursuant to Implementation Measure 3.3.1, development shall be sited and designed to minimize wetland impacts, and development shall be prohibited within a 100 foot buffer of any such wetlands unless it is development allowed within areas designated Resource Protection Buffer, except that a reduced or greater buffer distance may be applied if supported by a site-specific biological evaluation indicating that a reduced buffer would not result in a significant adverse effect to the wetland, or that a greater buffer distance is needed. To the extent that new wetland areas are identified pursuant to Implementation Measure 3.3.1 and the appropriate buffer area is not already designated Resource Protection Buffer on Figure 5.2, the Resource Protection Buffer designation shall be applied to the wetland buffer area.	As discussed in Section 3.4, <i>Biological Resources</i> , an evaluation of ESHAs under current site conditions was completed by the Huffman-Broadway Group in February 2011. Proposed CLRDP Amendment #1 includes revisions to the boundaries of wetland 2, 3 and 5 and their associated Resource Protection Buffers to take into account the results of this evaluation. The project would construct trails within the revised wetland buffers, as allowed within areas designated Resource Protection Buffer. The siting of CBB and MSC project elements are consistent with these revised buffers.
<b>IM 3.2.11</b> 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	As discussed in the Addendum, Section V, under <i>Biological Resources</i> , MSC Projects Mitigation Measures BIO-3A through BIO-3E

**APPENDIX A: CLRDP Policies and Implementation Measures Applicable to the Proposed MSC Projects**

Measure	Description	Project Consistency/Implementation
	shall include construction and post-construction safe passage and other mitigation measures (e.g., barriers along development perimeters) as appropriate.	would reduce potential impacts to California red-legged frog to a less-than-significant level.
<b>IM 3.2.12</b> 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.	Consultation with USFWS regarding special status wildlife species that may be affected by the proposed projects was conducted by the US Army Corps of Engineers in the context of Clean Water Act permitting.
<b>IM 3.2.14</b> Non-Invasive Native Plant Species Required	All landscaping and vegetation on the MSC (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 located within approximately one mile of the MSC and seaward of Highway 1.	All proposed landscape and restoration plantings would be consistent with this measure, as amended in 2013.
<b>IM 3.3.1</b> 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	As discussed in Section VIII of the Addendum, under <i>Biological Resources</i> , an evaluation of wetlands under current site conditions was completed by the Huffman-Broadway Group in February 2011. CLRDP Amendment #1 revised the Resource Protection and Resource Protection buffers to reflect the expanded boundaries of the wetlands based on the new evaluation. The

Measure	Description	Project Consistency/Implementation
	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.	expanded buffers are consistent with the buffer widths established by the CLRDP (that is, 100' from the edge of all wetlands, and 150' from portions of Wetland 5). The proposed additional parking lot construction would not be outside the revised buffers.
<b>IM 3.3.2</b> 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.	CLRDP Figure 5.6 has been revised to reflect the expansion of wetlands and wetland buffers based on the updated wetland evaluation that was completed in compliance with IM 3.3.1, above.
<b>IM 3.4.2</b> 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 MSC (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 minimized 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.	The additional parking lot development would be within designated development areas and at least 100 feet from the designated Resource Protection Areas.
<b>IM 3.4.3</b>	YLR shall not be exposed to noise generated by human activity	Noise levels at the YLR boundary are

**APPENDIX A: CLRDP Policies and Implementation Measures Applicable to the Proposed MSC Projects**

Measure	Description	Project Consistency/Implementation
Noise Intrusion into YLR	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 (10pm to 7am) periods, respectively, to allow for the greater sensitivity to noise during these hours.	analyzed in Section 3.11 of the MSC Projects EIR. The additional parking lots would not result in an increase in noise at the YLR boundary.
<b>IM 3.4.4</b> 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.	An evaluation of ESHAs under current site conditions was completed by the Huffman-Broadway Group in February 2011.
<b>IM 3.4.5</b> Update CLRDP with Respect to ESHA	For any ESHA and ESHA buffers identified pursuant to implementation measures 3.4.4, the University shall amend the CLRDP to reflect the newly identified ESHA and ESHA buffers, including all relevant CLRDP text, figures, and use and development restrictions applicable to those areas, and to remove those areas from development zones. The CLRDP amendment shall be submitted to the Coastal Commission before the effective date of the related development project authorization.	The CLRDP has been updated to reflect the results of the ESHA evaluation that was completed in 2011 in compliance with IM 3.4.4, above.

Measure	Description	Project Consistency/Implementation
<b>IM 3.5.3</b> 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.	As discussed in Addendum #1, under <i>Hydrology and Water Quality</i> , the additional parking lot design meets the requirements of the CLRDP Drainage Concept Plan.
<b>IM 3.5.7</b> 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 ORIGINAL YLR.	Activity within the new Parking Lot E and the expanded Seymour Center parking lot would not be visible from the original YLR, due to existing berms, vegetation, and buildings.
<b>IM 3.9.1</b> Construction Monitoring— Archaeological/ Paleontological Resources	Should archaeological and/or paleontological resources be encountered during any construction on the Marine Science Campus, all activity that could damage or destroy these resources shall be temporarily suspended until qualified archaeologist/paleontologists and Native American representatives have examined the site and mitigation measures have been developed that address and proportionately offset the impacts of the project on archaeological and/or paleontological resources. Development shall incorporate measures to address issues and impacts identified through any archaeologist/paleontologist and/or Native American consultation.	This requirement is part of the Campus' standard construction contract template and would be included in the construction contract documents.
<b>IM 3.11.1</b> Energy Efficiency in New Construction	Sustainable design, technology and construction practices shall be incorporated into, and sustainably produced materials shall be used in the construction of new facilities as feasible.	Parking lot lighting will be provided only as needed for safety and will consist of high-efficiency LED luminaires.
<b>Policy 3.13</b> Natural	For new development that may significantly affect natural resources, individually or cumulatively, the Project Report and	Consistency of the proposed additional parking lot construction with the natural

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**APPENDIX A: CLRDP Policies and Implementation Measures Applicable to the Proposed MSC Projects**

Measure	Description	Project Consistency/Implementation
Resource Protection Analysis Required	other supporting information identified in Chapter 8 shall describe the manner in which the proposed development is consistent with and implements the natural resource protection provisions of this CLRDP, including those in Section 5.3 (Natural Resource Protection), Chapter 9 (Capital Improvement Program), and Appendix A (Resource Management Plan). The Project Report supporting information shall also include a long-term program for monitoring potentially affected natural resources and for maintaining consistency with CLRDP standards.	resource protection provisions of the CLRDP is analyzed in Addendum #1, under <i>Biological Resources</i> and <i>Hydrology and Water Quality</i> .
<b>IM 4.1.1</b> Location of Development	The Campus shall cluster development on the Marine Science Campus as shown in Figures 5.2 and 5.4 so as to leave ample open space that protects identified public views, including identified public view corridors.	As discussed in Section V of Addendum #1, the proposed parking lot construction is consistent with CLRDP restrictions on locations, types and intensity of use.
<b>IM 4.2.1</b> 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.	Siting of the proposed development is consistent with the CLRDP land-use plan. UCSC has provided design consultants with the applicable design guidelines and checks for project consistency at all stages of project design.
<b>IM 4.2.2</b> Alteration of Natural Landforms	Development shall be sited and designed to minimize the alteration of natural landforms.	The proposed development is sited on level land.
<b>IM 4.2.10</b> Placement of	All utility lines on the Marine Science Campus shall be located underground.	All proposed utility lines would be underground.

**APPENDIX A: CLRDP Policies and Implementation Measures Applicable to the Proposed MSC Projects**

Measure	Description	Project Consistency/Implementation
Utility Lines Underground		
<b>IM 4.3.1</b> Visual Intrusion into YLR	Development adjacent to the Original YLR shall be sited and designed so that activity and direct light will not be visible from within the Original YLR.	Existing berms and buildings would screen the new parking lot activity and lighting so that they would not be visible from within the original YLR.
<b>IM 4.3.2</b> 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 minimized to the maximum degree 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 minimize visual intrusion to the maximum extent feasible, the University shall consult with the manager of YLR and the California Department of Fish and Game.	The proposed parking lot development would include shielded lighting, non-reflective surfaces, and screening with vegetation and earthen berms.
<b>IM 4.3.3</b> All Lighting	Lighting on the MSC shall be provided at the lowest footcandle levels necessary to achieve safety and efficient navigation.	Consistent with this implementation measure, lighting would be provided only as necessary for safety and navigation.
<b>IM 4.3.6</b> Parking lot and Maintenance yard Lighting	Lighting in parking lots and maintenance yards shall be the lowest lighting intensity levels necessary to provide safety and security. All parking lot and maintenance yard lighting shall be full cut-off type lighting and shall be downward directed. Pole mounted lighting shall be limited to the degree feasible (in number, height, and bulk) and shall not exceed 12 feet in height.	Lighting in the new parking lot E and the renovated Seymour Center lot would be full cut-off lighting and would pole mounted.
<b>IM 4.3.8</b> Lighting Plan Required	New development that includes lighting shall be authorized by the University only if it includes a lighting plan that details the manner in which the development individually and/or cumulatively is consistent with and implements the lighting	A detailed lighting plan for the projects would be prepared during the detailed design process.

**APPENDIX A: CLRDP Policies and Implementation Measures Applicable to the Proposed MSC Projects**

Measure	Description	Project Consistency/Implementation
	parameters of this CLRDP, including Policy 4.3 and its implementing measures, and including long-term lighting system monitoring and maintenance.	
<b>IM 5.3.5</b> Lower Terrace Dual Use Parking (Public Coastal Access Parking and Discovery Center Parking)	A minimum of 40 parking spaces in the Lower Terrace Development Zone shall be available and reserved exclusively for public coastal access parking and for parking by visitors to the Seymour Marine Discovery Center.	The existing parking program at the CSC designates 40 dual use visitor/public coastal access parking spaces in the Lower Terrace area. These will be maintained with the expansion of the Seymour Center parking lot.
<b>IM 5.3.6</b> Lower Terrace Public Coastal Access Parking	A minimum of ten public coastal access parking spaces shall be provided in the Lower Terrace Development Zone in a location that provides the easiest and most direct access to public coastal access a [(e.g., in the parking bay along the east side of McAllister Way opposite the Ocean Health Building).	The existing parking program at the CSC designates 10 dedicated public coastal access and 40 dual use visitor/public coastal access parking spaces in the Lower Terrace area. These will be maintained with the expansion of the Seymour Center parking lot.
<b>IM 5.4.1</b> Development of New Parking	New parking shall be developed as demand warrants up to a maximum of 795 spaces campuswide. No new parking spaces shall be developed until existing parking spaces in a given development zone are greater than or equal to 90 percent utilized (on average). The parking supply requirements of Policy 5.3 and its implementation measures shall be satisfied pursuant to the timing identified in Figure 9.4.	Consistency of the proposed Project Changes with this requirement is documented in Section IV of the addendum.
<b>IM 5.4.3</b> Distribution & Intensity of Parking	Parking shall be distributed among the four development zones as necessary to meet facility demand within each zone. Parking areas shall be designed to provide small, discrete parking areas.	The additional parking lot construction would add parking spaces in both the lower and middle terrace development zones.
<b>IM 5.7.3</b>	As part of the development of the Marine Science Campus	The expansion of the Seymour Center parking

**APPENDIX A: CLRDP Policies and Implementation Measures Applicable to the Proposed MSC Projects**

Measure	Description	Project Consistency/Implementation
Physical Infrastructure for Transit	circulation system, paved areas for bus turnarounds and covered transit stops for bus and shuttle riders shall be developed at logical locations throughout the Marine Science Campus concurrent with the construction of new roadways, sidewalks, and related circulation improvements in a manner that is consistent with CLRDP design guidelines.	lot would include space for buses to turn around.
<b>IM 6.1.2</b> Public Access Parking	The University shall construct, provide, and maintain parking spaces that are available to the public consistent with the provisions of Section 5.5, Circulation and Parking, to facilitate public coastal access to the MSC and the adjacent shoreline and coastal area.	The existing parking program at the CSC includes 10 dedicated public coastal access and 40 dual use visitor/public coastal access parking spaces in the Lower Terrace area, 5 dedicated coastal visitor parking spaces in the Middle Terrace and 15 dedicated coastal visitor parking spaces at the campus entrance. The proposed additional parking lot construction would not remove any of these spaces.
<b>IM 7.1.1</b> Management of Storm Water and Other Runoff	The storm water 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	As discussed in Addendum #1, under <i>Hydrology and Water Quality</i> , the additional parking lot design meets the requirements of the CLRDP Drainage Concept Plan.

**APPENDIX A: CLRDP Policies and Implementation Measures Applicable to the Proposed MSC Projects**

Measure	Description	Project Consistency/Implementation
	<p>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 storm water 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><b>IM 7.1.2</b> Water Quality Standards</p>	<p>Storm water and other site runoff shall be filtered and treated to the extent necessary to meet the minimum water quality requirements set forth in the Drainage Concept Plan (see Drainage Concept Plan, Section B.4.2).</p>	<p>As discussed in Addendum #1, under <i>Hydrology and Water Quality</i>, the additional parking lot design meets the requirements of the CLRDP Drainage Concept Plan.</p>
<p><b>IM 7.1.3</b> Pre- and Post-Development Flows</p>	<p>The University shall develop and manage a drainage system on the Marine Science Campus that maintains pre-development drainage patterns and peak flow rates for up to the 25-year return storm in the post-development drainage system to the degree feasible, provided that accommodating such flows does not require drainage system sizing that exceeds 85th percentile storm event requirements (see Appendix B). The one exception to this flow pattern standard is drainage from Basin 10, part of which shall flow to Basin 9 to avoid construction of a new outfall over the coastal bluff (see Drainage Concept Plan in Appendix B) (see Drainage Concept Plan, Sections B.4.1 and B.4.2).</p>	<p>As discussed in Addendum #1, under <i>Hydrology and Water Quality</i>, the additional parking lot design meets the requirements of the CLRDP Drainage Concept Plan.</p>
<p><b>IM 7.1.4</b> Pre-</p>	<p>“Predevelopment drainage patterns” means the pattern of storm water and other runoff flows prior to certification of this</p>	<p>The design criteria for the drainage system are based existing conditions, which have not</p>

Measure	Description	Project Consistency/Implementation
Development Drainage Patterns Defined	CLRDP, as identified in Drainage Concept Plan.	changed since certification of the CLRDP.
<b>IM 7.1.5</b> Pre-Development Drainage Peak Flow Rates Defined	“Pre-development drainage peak flow rates” means the estimated rates at which storm water and other runoff flowed on the site assuming the site was covered in grassland vegetation, as estimated in the Drainage Concept Plan, with the exception that for drainage Basins 5 and 9 only, it means the estimated rates at which storm water flowed on the site prior to certification of this CLRDP, as estimated in the Drainage Concept Plan (see Drainage Concept Plan, Sections B.2 and B.3).	The design criteria for the drainage system are based on existing conditions, which have not changed since certification of the CLRDP.
<b>IM 7.1.6</b> Groundwater Recharge	The University shall develop and manage a drainage system on the Marine Science Campus that maintains groundwater recharge at pre-CLRDP levels to the maximum extent practicable through the use of infiltration (e.g., in the vegetated storm water basins and swales) (see also Drainage Concept Plan Section B.4.3).	The new parking lot E and the addition to the Seymour Center lot would be surfaced with a pervious pavement system.
<b>IM 7.1.10</b> Elements of the Storm Water Treatment Train	The University has identified six primary treatment BMPs in the Drainage Concept Plan (Appendix B) to be used as appropriate in every project-specific drainage plan developed for the Marine Science Campus. Wherever possible, these BMPs shall be used in series as a treatment train, but any combination may be used, depending on what is appropriate in any particular drainage basin, provided a subset of these six BMPs and/or a substitution (of an equally effective BMP) for one or more of them would provide equal or better water quality and other resource protection. In every case, engineered storm water treatment systems shall be installed as part of the	As discussed in Addendum #1, under <i>Hydrology and Water Quality</i> , the additional parking lot design meets the requirements of the CLRDP Drainage Concept Plan.

Measure	Description	Project Consistency/Implementation
	treatment train where areas subject to vehicular-type pollutant generation (e.g., parking lots, maintenance areas, laydown areas, etc.) are tributary to the treatment train.	
<b>IM 7.1.13</b> Permeable Hardscape	Hardscape development (such as roads, parking areas, paths, patios, etc.), where feasible and 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.	The new parking lot E and the addition to the Seymour Center lot would be surfaced with a pervious pavement system.
<b>IM 7.1.14</b> Ocean Discharge	Ocean Discharge. In addition to any National Pollutant Discharge Elimination System (NPDES) requirements, all ocean discharge shall be subject to the monitoring, maintenance, and water quality standards and requirements identified in the Drainage Concept Plan.	The proposed additional parking lot construction would not add any new ocean discharge points.
<b>IM 7.1.15</b> Drainage System Interpretive Signs	All drainage improvements shall include as part of them interpretive signs and facilities designed to explain the reason for and the operation of the selected treatment train drainage system components applicable to both the individual development and the MSC overall.	Interpretive signs will be provided at the locations shown on EIR Figure 2-5, under the NEF and MSCI projects.
<b>IM 7.1.17</b> Designation of Treatment Train	All development projects that include new drainage system components (e.g., development of vegetated filter strips, swales, and storm water basins) or that result in new drainage inputs to established drainage system components shall clearly identify the drainage system components that are designed to accommodate project drainage and address CLRDP water quality requirements. These components shall be considered a “BMP treatment train” for purposes of CLRDP water quality monitoring (see Appendix B). For each BMP treatment train so identified, its final discharge point and a representative initial	The design proposed drainage system for the CBB project, which is described in detail in Section 3.9, <i>Hydrology and Water Quality</i> , is consistent with the CLRDP water quality requirements. Water quality monitoring points would be identified during detailed design of the storm water system. This implementation measure would be included in the MMP for the CBB and MSCI projects.

Measure	Description	Project Consistency/Implementation
	input point shall be designated for purposes of CLRDP water quality monitoring.	
<b>IM 7.3.2</b> Discharge Siting and Design	All discharge points shall be sited and designed to minimize resource impacts.	The additional parking lot construction would not add any new discharge points.

**Appendix B**  
**MSC Projects Mitigation Monitoring and Reporting Program**

**Marine Science Campus Projects Mitigation Monitoring and Reporting Program**

**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
<p><b>CLRDP EIR General Mitigation Measure 4.2-1:</b> 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.</p> <p>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.</p> <p>UCSC will install the fence and landscaping prior to groundbreaking of any CLRDP project components.</p>	<p>Install fence and landscaping.</p> <p>Document that fence and landscaping have been installed consistent with requirements in the mitigation measure</p>	<p>Prior to groundbreaking of any project component</p> <p>Prior to construction</p>	<p>PP&amp;C</p> <p>PP&amp;C</p>	<p>Report in CLRDP EIR annual mitigation monitoring report</p> <p>Report in annual MMR</p>
<p><b>MSC Projects Mitigation Measure AIR-1:</b> The University shall revise CLRDP General Mitigation 4.3-1 as shown below:  <b>CLRDP EIR Mitigation Measure 4.3-1:</b> 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"> <li>Water all active construction areas at least twice times daily <u>and at least three times daily during the months of February through November. Frequency shall be based on the type of operation, soil, and wind exposure</u></li> <li>Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two</li> </ul>	<p>PM will include measures from bullet list that are applicable to the project in construction specifications.</p> <p>Inspector will monitor and require correction of any violations.</p> <p>PM will register and respond to any dust complaints.</p>	<p>Identify appropriate measures prior to issuing construction bid documents.</p> <p>Throughout construction</p> <p>Throughout construction</p>	<p>PP&amp;C/ PM</p> <p>Inspector/ PM</p> <p>PP&amp;C/ PM</p>	<p>PM cite numbers of construction specifications where measures are identified in mitigation monitoring report (MMR)</p> <p>Any violations will be noted in MMRP.</p> <p>Any complaints and their resolution will be recorded in annual MMR.</p>

**Marine Science Campus Projects Mitigation Monitoring and Reporting Program**

**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
<p>feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).</p> <ul style="list-style-type: none"> <li>• Pave, apply water two times daily, or apply non-toxic soil stabilizers to all unpaved access roads, parking areas, and construction staging areas.</li> <li>• Sweep daily with water sweepers any paved access roads, parking areas, and staging areas at construction sites.</li> <li>• Sweep streets daily with water sweepers if visible soil material is carried onto adjacent public streets.</li> <li>• Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas or previously graded areas left inactive for ten days or more.</li> <li>• Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).</li> <li>• Limit traffic speeds on unpaved roads to 15 miles per hour.</li> <li>• Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</li> <li>• Replant vegetation in disturbed areas as quickly as possible.</li> <li>• In the event that grading and excavation at two or more large project sites is proposed to occur concurrently (large sites defined as involving more than 2 acres), install wheel washers at the entrance of the construction sites.</li> <li>• Phase construction projects in such a manner that minimizes the area of surface disturbance (e.g., grading, excavation) and the number of vehicle trips on unpaved surfaces.</li> <li>• <u>Post a publicly visible sign that specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402.</u></li> </ul>				

**Marine Science Campus Projects Mitigation Monitoring and Reporting Program**

**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
<p><b>MSC Project Mitigation Measure BIO-1:</b> A qualified botanist will conduct up to three focused surveys for target special-status plant species on and within the full extent of all vegetated areas that will be subject to project activity (ground disturbance, placement of spoils, construction vehicle parking or traffic, etc.) for each project element during the spring-summer (April-August) blooming period, within two years prior to the beginning of construction. If no special-status species are observed during the focused surveys, no additional mitigation is necessary. If special-status plants are observed, the population will be mapped and quantified and a suitable buffer zone established (based on species requirements, proximity to the work area, and other site specific factors), and other protection measures, such as fencing around the population to protect it from disturbance, will be implemented as determined necessary by the biologist. If the population cannot be avoided by the project, impacts to the population shall be quantified and regulatory agencies (California Department of Fish and Game, and/or U.S. Fish and Wildlife Service, as appropriate) contacted for guidance or permitting, depending on the species affected, and additional measures that may be identified by regulatory agencies to mitigate adverse effects, such as soil stockpiling, transplantation, and/or seed collection and propagation, would be implemented.</p>	<p>Campus will contract with qualified biologist to conduct survey as specified.</p> <p>Biologist will map and quantify special-species population and establish buffer.</p> <p>PM and planners will consult to determine whether plants can be avoided</p> <p>PM will ensure that fencing and other protective measures are implemented.</p> <p>If plants cannot be avoided, Campus will consult with regulatory agency(ies) and take additional measures as required.</p>	<p>Spring and summer (April-August) within two years before beginning of construction.</p> <p>Upon discovery of special-status species in project footprint.</p> <p>Prior to start of construction</p> <p>Throughout construction</p> <p>Upon determination that special-status plant population cannot be avoided. Timing of addtl. measures as specified by regulatory agencies</p>	<p>PP&amp;C Project Manager (PM)</p>	<p>PM will ensure that survey report is included in project file.</p> <p>Map and biologist's buffer recommendations in project file.</p> <p>Buffer and procedures included in contract documents.</p> <p>Daily biological monitoring logs will include inspection of any plant protections</p> <p>Agency correspondence in project file. Document additional measures as required.</p>
<p><b>MSC Projects Mitigation Measure BIO-2a</b> In the first fall after use of the staging area is discontinued, gravel and groundcover cloth will be removed, and the ground surface will be scarified to alleviate any compaction from construction. Then, the entire area will be seeded or replanted with a non-invasive erosion control seed mix or a mix composed of appropriate, locally-collected native grasses and forbs, selected in collaboration with YLR staff from the species listed in the approved SRP Phase 1A. Temporary irrigation will be supplied as needed to ensure that plantings are adequately established. Alternatively, the Campus may elect to retain the groundcover cloth and gravel and maintain the area as a temporary parking lot until such time as it is developed.</p>	<p>PM will consult with YLR Manager to develop appropriate seed /planting and irrigation specifications</p> <p>Construction contractor will seed or plant staging area as specified in the mitigation, and provide temporary irrigation as needed.</p>	<p>In the first fall after use of the staging area is discontinued, if Campus does not plan to use the area as a temporary parking lot.</p> <p>Same</p>	<p>PP&amp;C PM</p>	<p>PM will ensure that seeding and/or planting requirements are included in construction documents.</p>

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<b>MSC Projects Mitigation Measure BIO-2b:</b> If the area is replanted, the Campus will ensure that the restored area will be managed to prevent seed set of annual species and will monitor this area and will remove high priority weeds and control other weedy invasive annual grasses and herbs, consistent with IM 2.3.5 (Interim Weed Abatement Measures for Undeveloped Lands within Development Zones) until such time as the area is developed.	Grounds services will monitor restored area and remove high priority weeds and control other weedy invasive plants as specified in the mitigation.	At least annually, after replanting, until the area is developed.	Grounds Services, in consultation with YLR manager	Ground Services will document monitoring and restoration in annual CLRDP mitigation monitoring report files and summarize in annual mitigation monitoring report.
<b>MSC Project Mitigation Measure BIO-2c:</b> Grounds Services in collaboration with YLR staff will assess the effectiveness of the measures above in controlling the spread of invasive plants from this site into the YLR annually. If it is determined that the staging site has become a significant source of invasive plants that could migrate into YLR habitat, the Campus will till the area and reseed it annually with sterile grasses, and these planting will be maintained until such time as the site is developed.	Consult with YLR staff to determine whether invasive plants have been adequately controlled.  Till area and seed with sterile grasses.	Annually  Annually, until the site is developed, if staging site has become a significant source of invasive plants.	Grounds Services, in consultation with YLR manager.	Ground Services will document monitoring and restoration in annual CLRDP mitigation monitoring report files and Environmental Planning will summarize in annual mitigation monitoring report.
<b>MSC Projects Mitigation Measure BIO-3A:</b> Within two weeks prior to the start of construction, and each time a new crew starts work, a qualified biologist will present a worker education program and associated documentation to all new construction personnel at the project site. The on-site foremen will ensure that all construction personnel and subcontractors receive a copy of the written biological education materials. The education program shall include a description of the CRLF and its habitat, the general provisions of the Endangered Species Act, the necessity of adhering to the Act to avoid penalty, and measures that will be implemented, specific to the project and the work boundaries of the project, to avoid affecting CRLF.	PM will include training requirement in contract documents.  PM will contract with biologist to provide training and brochure and will coordinate with contractor to schedule training session.  Biologist will contract training as needed and document on daily monitoring log	Within two weeks prior to the start of construction, and each time a new crew starts work.  Prior to start of construction  Prior to start of construction and ongoing as needed	PP&C PM	PM will cite relevant contract document section in mitigation monitoring checklist.  PM will include brochure and biologist's daily monitoring logs in project file.  PM will include record of trainings in project file.
<b>MSC Projects Mitigation Measure BIO-3B:</b> In consultation with a qualified biologist (see MSC Projects Mitigation Measure BIO-15 [Biological Mitigation Coordination]), the Campus will ensure that an exclusion fence for CRLF and western pond turtle is installed around each work area that contains vegetation that could provide appropriate cover for CRLF and/or appropriate nesting habitat for western pond	PM will consult with biologist to map appropriate fencing alignment and include fencing alignments and specifications, including biological monitoring requirements for installation and construction, in contract	Before project goes out to bid.	PP&C PM	PM will cite relevant contract document section in mitigation monitoring checklist.

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<p>turtle (see MSC Projects Impact BIO-6 below), prior to construction, to prevent CRLF and western pond turtle from moving onto the site. Areas that will be disturbed by SRP Phase 1B activities, road and trail construction and utility construction will be subject to separate mitigation measures, as exclusion fencing would not be effective or practicable for these areas. Fencing alignments will be determined as follows: During development of project specifications and construction drawings, the project biologist will review site-work, grading and other pertinent plans with the UCSC Project Manager to determine locations where exclusion fencing for frogs and turtles (as described below) 1) would be effective in excluding wildlife from construction activity areas, 2) could be employed without unduly hindering construction activity, and 3) appears more likely than allowing free night movement through the construction zone to benefit the target species. To minimize unnecessary exclusion of wildlife that may safely pass through, and subject to consultation between the qualified biologist and the project construction manager, areas where disturbance will be short term and/or temporary may be subject to biological monitoring during vegetation clearing and/or during construction, rather than to fencing. The agreed upon fencing alignments will be marked on the plans during biological coordination, as specified in Mitigation Measure BIO-15, and included in the project specifications. Prior to any surface disturbance at each location, a qualified biologist will meet in the field with the UCSC project manager and construction foreman to adjust the fencing alignment and timing of erection and removal based on the habitat that will be affected, as well as on the configuration and location of specific construction tasks. The alignments as shown on plans will be subject to adjustment by mutual agreement between the biologist, the project manager and the construction contractors, as necessary to ensure wildlife protection, without unnecessarily impeding construction.</p> <p>Installation of fencing will be monitored by a qualified biologist. Exclusion fence materials may be high-grade nylon silt-fencing, plywood, or other appropriate materials. The base</p>	<p>documents, following process specified in the mitigation.</p> <p>PM will coordinate with biologist and contractor to adjust fencing alignment.</p> <p>Biologist will document integrity of fencing and any adjustments in daily monitoring log.</p>	<p>Fence to be installed by April 15 (see MSC Projects Mitigation Measure BIO-6, below), prior to the beginning of construction. Maintain fence throughout construction</p> <p>Inspections throughout construction</p>		<p>PM will document any changes to fencing in project file.</p> <p>PP&amp;C project manager confirm that fence is in place throughout construction and include biologist's documentation in project file</p>

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<p>of the fence shall be buried at least 6 inches and it shall extend at least 2.5 feet above grade and shall surround the entire exclusion area. If necessary, an appropriate gate shall be engineered, in consultation with a biologist experienced in implementation of these provisions, to access construction areas that excludes the target species at night, but allows egress by workers and equipment during the day. Roads and pathways necessary to access existing facilities will not be fenced or gated. 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 6-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 to ensure that they remain in place.</p> <p>Fencing may be removed, upon approval of the qualified biologist, when all construction-related activities that could harm or kill CRLF or damage turtle nests (see MSC Projects Impact BIO-6, below) are complete; generally, when the majority of exterior work is complete.</p>				
<p><b>MSC Projects Mitigation Measure BIO-3C:</b> Immediately prior to vegetation removal at each project element/work site, including both fenced and unfenced sites, a qualified biologist will survey each work site for CRLF. The biologist will then monitor the initial removal of vegetation in each work area, including the work areas within exclusion fencing and unfenced areas, including trail alignments, utility alignments outside of existing roadways, and the areas of grading proposed for SRP Phase 1B wetland work. Next, vegetation will be cleared, with hand-held equipment, to a height of 3–6 inches above grade. The qualified biologist will then repeat the inspection before any ground disturbance or heavy equipment movement into the area. If CRLF are observed in the work area at any time during this process, ground disturbing work</p>	<p>PM will contract with Biologist to conduct survey and monitoring as specified, and to document results.</p> <p>Biologist will monitor as specified and document results in daily monitoring log.</p> <p>PM will stop ground disturbing</p>	<p>Prior to start of construction</p> <p>Immediately prior to vegetation removal at each project element/work site; during initial removal of vegetation in each work area; before any ground disturbance or heavy equipment movement into the area.</p> <p>Upon discovery that a CRLF is</p>	<p>PP&amp;C PM</p>	<p>PM will include Biologist’s survey and monitoring reports, and any correspondence with USFWS in project files.</p>

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<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
will be postponed and the USFWS contacted for guidance.	work and contact USFWS if biologist reports CRLF observation and will ensure work does not resume while CRLF are present.  PM will consult with USFWS and implement additional requirements.	present		
<b>MSC Projects Mitigation Measure BIO-3D:</b> Subsequent to vegetation removal, a qualified biologist will inspect every work area each morning prior to the start of construction activity, until all surface-disturbing activities are complete. If no CRLF are observed during the morning inspection, the biologist will depart. After all potential habitat is cleared within the work area, daily monitoring will cease, but the biologist will inspect exclusion fencing weekly and the contractor will repair fencing as identified by the biologist, by nightfall on the same day. If CRLF are observed on or near the work area at any time, work shall cease in proximity to the observation and a qualified biologist and the USFWS will be contacted immediately. Full-time biological monitoring and/or other mitigation measures may then be required.	PM will ensure that Biologist inspects every work area daily and documents inspection results on daily log.  Biologist will inspect exclusion fencing; contractor repair fencing as needed. Biologist report on daily log	Each morning before construct activity begins, after vegetation is removed, until all surface-disturbing activities are complete.  Weekly, after all potential habitat is cleared within the work area.	PP&C	PM will include Biologist's reports in project file.
<b>MSC Projects Mitigation Measure BIO-3E:</b> Construction work and all construction vehicle movement on the site will be restricted to the hours between dawn and dusk. In addition, construction vehicles and heavy equipment will be restricted from parking at night along road margins except where roads immediately abut existing development. The biological monitor will inspect the area around and under each piece of equipment not parked within the exclusion areas, prior to equipment movement each morning.	PM will ensure that hours of work and equipment inspection requirements are specified in contract documents.  Biological monitor inspect under and around equipment and document in daily log.	Before project goes out to bid.  Each morning, before equipment is moved.	PP&C	PM will cite relevant contract document section in mitigation monitoring checklist.  PM will include Biologist's reports in project file.
<b>MSC Projects Mitigation Measure BIO-4:</b> A qualified biologist will conduct a survey following CDFG guidelines (1995) for wintering burrowing owls during the winter season immediately preceding the start of construction. If the species is detected within the project area, the Campus will contact	PM will contract with Biologist to conduct survey as specified.  Biologist will conduct survey	Prior to the start of construction  During winter season	PP&C PM	PM will include Biologist's survey report, and any correspondence with CDFG, in projects file.

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<p>CDFG for guidance regarding feasible methods to protect owls during construction, and will implement CDFG recommendations to avoid potential impacts to owls.</p>	<p>as specified and notify PM if owl burrows are present.</p> <p>PM will contact CDFG for guidance and implement CDFG recommendations if owl burrows are present.</p>	<p>immediately preceding the start of construction.</p> <p>Upon discovery of burrowing owls. CDFG recommendations for avoidance or protection will be implemented throughout construction</p>		
<p><b>MSC Projects Mitigation Measure BIO-5:</b> Within 15 days prior to surface disturbance in each project area, a qualified biologist will conduct a pre-construction survey for badger dens and diggings at each project site and within 200 feet of project margins (exclusive of the portion of the YLR surrounding the lagoon, which is already fenced and protected). If a badger den is detected within the project site or the buffer zone (exclusive of the YLR, where no disturbance will occur), a wildlife-friendly exclusion fence shall be installed (steel T-posts and yellow nylon rope or similar material), 25-feet from the den in all directions, and CDFG shall be contacted for guidance. Additional mitigation measures recommended by CDFG will be implemented to ensure that any badgers present in or near project areas are protected or appropriately relocated.</p>	<p>PM will contract with biologist to conduct pre-construction survey as specified in mitigation and will ensure that fencing specifications are included in construction contract and that biologist conducts survey.</p> <p>Biologist to notify PM if protective measures are needed.</p> <p>Contractor will install fence as specified in mitigation, PM will contact CDFG, and implement additional mitigation measures recommended by CDFG.</p>	<p>Contract prior to start of construction/ prior to issuing bid documents</p> <p>Survey within 15 days prior to surface disturbance in each project area.</p> <p>Prior to start of construction</p> <p>Upon discovery of occupied badger burrow, prior to the start of construction</p>	<p>PP&amp;C PM</p>	<p>PM will include Biologist's report(s) and any correspondence with CDFG in project file.</p>
<p><b>MSC Projects Mitigation Measure BIO-6:</b> The construction crew training described in MSC Projects Mitigation BIO-3A, above, also shall include information on avoidance and protection of western pond turtles and their nests. In addition, prior to April 15, prior to April 15 during the year of construction (prior to the beginning of nesting season), work areas shall be enclosed with a wildlife exclusion fence as specified in Mitigation Measure BIO-3B (above), before surface disturbance occurs, to reduce the chance that turtles may deposit eggs within the work area. If construction begins before April 15, the exclusion fence requirement specified in</p>	<p>PM include training on western pond turtles and monitoring for turtles in contract with biologist.</p> <p>Installation and maintenance of fence as specified under Mitigation Measure BIO-3B.</p>	<p>Before construction begins.</p> <p>Fence installed prior to April 15 during the year of construction, or before construction begins, whichever comes first.</p>	<p>PP&amp;C</p>	<p>PM cite to relevant sections/drawings of contract documents in mitigation monitoring checklist.</p> <p>PM include Biologist's reports and any correspondence with CDFG in project file.</p>

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<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
<p>Mitigation Measure BIO-3B is still required. In areas that will be temporarily disturbed, such as installation of underground utilities or trail construction, a qualified biologist shall search for any evidence of western pond turtle nesting prior to surface disturbance. If a western pond turtle or nest is discovered, CDFG will be contacted for guidance regarding appropriate protection or, if necessary, relocation of the nest.</p>	<p>Biologist will conduct survey.</p> <p>Biologist contact CDFG and follow agency’s guidance regarding protection or relocation of nest.</p>	<p>Before surface disturbance.</p> <p>Upon discovery of a turtle and/or nest. CDFG recommendations will for avoidance and/or protection will be followed throughout construction. .</p>		
<p><b>MSC Projects Mitigation Measure BIO-7A:</b> If work in any project site area must commence during the avian breeding season (February 1 to August 31), a qualified biologist shall conduct a pre-construction breeding bird survey throughout areas of suitable habitat within 300 feet of the work area within 15 days prior to the onset of any construction activity. If nesting birds or active nests of any species are observed within a project work area or surrounding buffer, an appropriate buffer zone shall be established around each active nest to protect nesting adults and their young from construction disturbance. The size and configuration of buffer zones for each nest site shall be determined by a qualified biologist in consultation with CDFG based on site conditions and species. Construction work within the buffer zone will be postponed until all the young are fledged, as determined by a qualified biologist.</p>	<p>PM will contract with Biologist to conduct survey, which will be carried out prior to start of construction</p> <p>PM and biologist will consult with CDFG to determine appropriate buffer.PM will notify construction contractor of buffer and ensure it is appropriately marked.</p> <p>Biologist will monitor nest and integrity of buffer, maintain daily log, and notify PM when buffer can be discontinued.</p>	<p>Contract will be in place prior to the start of construction; survey will be conducted within 15 days before any construction activity begins, if work in any project site area must commence during the avian breeding season (February 1 to August 31).</p> <p>Prior to the start of construction, upon discovery of active nest</p> <p>Until nest is no longer active</p>	<p>PP&amp;C PM</p>	<p>PM include Biologist’s reports and any correspondence with CDFG in project file.</p>
<p><b>MSC Projects Mitigation Measure BIO-7B:</b> In addition, to avoid interference by construction noise with bird nesting within YLR, construction work in development Subareas 6 and 7 (the Greenhouse Complex and adjacent parking lot, plus berm and fence alternations along YLR margin) will not begin during the peak nesting season (March 1 through August 1) unless the biological monitor determines that starting work during this time period will not impact birds that are present. If work begins after August 1 or before March 1, it may continue</p>	<p>PM will include limits on scheduling work in Subareas 6 and 7 in contract specifications, subject to consultation with biologist.</p> <p>Biologist will conduct nesting bird survey and inform PM if activity limitations are needed</p>	<p>Before construction begins, as specified in BIO-7B.</p> <p>Same</p>	<p>PP&amp;C PM</p>	<p>PM cite to relevant sections/drawings in contract documents in mitigation monitoring checklist.</p> <p>PM include Biologist’s reports in project file.</p>

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during the nesting season.	based on whether birds are present.			
<b>MSC Projects Mitigation Measure BIO-7C:</b> Berm construction along Subarea 7 shall be completed as early as possible in the construction period, such that the berm will provide buffering for YLR from noise and activity associated with subsequent construction.	PM will include proviso in contract specifications that berm construction should be scheduled as specified.  PM will consult with contractor regarding scheduling constraints.	Prior to issuing bid documents  Before construction begins.	PP&C PM	PM cite to relevant sections/drawings in contract documents, in mitigation monitoring checklist.  PM to confirm during construction at quarterly updates of mitigation monitoring checklist.
<b>MSC Projects Mitigation Measure BIO-7D:</b> Prior to ber construction, Subarea 6 will be used for the least noisy construction staging activities, such as contractor offices and parking.	Include limitations on use of Subarea 6 in contract documents.	Prior to issuing bid documents.	PP&C PM	PM cite to relevant sections/drawings in contract documents, in mitigation monitoring checklist.
<b>MSC Projects Mitigation Measure BIO-8:</b> The Campus will ensure that a qualified biologist conducts a pre-construction survey for special-status bats of the greenhouses and associated sheds before demolition occurs. If special-status bats are detected, the campus will contact CDFG for recommendations on appropriate measures to be taken to exclude bats such that they would not be harmed, and these measures will be implemented prior to demolition. If maternity roosts that would be displaced by demolition or construction are identified, the Campus will consult with CDFG to determine whether artificial replacement roosts should be installed in appropriate habitat nearby, and carry out CDFG recommendations.	PM will contract with Biologist to conduct survey and document results.  PM and Biologist will consult with CDFG if bats are present. PM will ensure that recommended measures to exclude bats and, if necessary, construction of artificial replacement roosts are implemented, as determined in consultation with CDFG.	Survey to be conducted before demolition of the existing greenhouses begins.  Upon discovery of special-status bats, with any necessary exclusion implemented prior to start of construction	PP&C PM	PM include Biologist's reports and any correspondence with CDFG in project file.
<b>MSC Projects Mitigation Measure BIO-9A:</b> A pre-construction survey for the SFDW will be conducted within 15 days prior to demolition, vegetation removal or ground disturbance at each site. If no active SFDW houses are found, no further mitigation is necessary at that location. If SFDW houses are found and they can be avoided, a buffer zone will be erected around the SFDW house, 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	PM will contract with Biologist to conduct survey as specified and document results.  PM ensure that buffer is established as determined by biologist.	Survey to be conducted within 15 days before demolition begins.  Prior to start of construction, upon discovery of active nest	PP&C PM	PM include Biologist's reports and any correspondence with CDFG in project file.

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materials) and all construction activity will be prohibited within that zone. If one or more SFDW houses cannot be avoided, and relocation is necessary, CDFG will be contacted for approval for a qualified and permitted biologist to live-trap and relocate individual rats. For each house lost, one stick pile "house" will be relocated or created in the nearest suitable habitat outside the construction zone, in the animal's home range if possible, and the live-trapped individual will be released into the stick pile, to minimize the potential impact.	Biologist inspect buffer and document its maintenance in daily monitoring logs  Consult with CDFG and implement agency recommendations.	Throughout construction in vicinity.  Prior to start of construction, if one or more SFDW houses cannot be avoided.		
<b>MSC Projects Mitigation BIO-9B:</b> In addition, in the vicinity of each relocated house, preferably within the relocated animal's home range, SFDW habitat will be enhanced, in consultation with a biologist with SFDW experience, by placement of an anchor log and, if sufficient suitable material is not readily available, additional woody debris suitable for creation of additional nests, to ensure that there are sufficient suitable nest sites for SFDW already present as well as any that are relocated.	PM consult with Biologist on procedures for enhancement of habitat.  PM ensure that habitat is enhanced as recommended by biologist.	Prior to relocation of any SFDW house  Same	PP&C PM	PM include Biologist's reports in project file.  PM include documentation of habitat enhancement in project file.
<b>MSC Projects Mitigation Measure BIO-10a:</b> Any new or replaced fencing will be designed and installed in such a way as to provide 4 inches of clearance between the ground and the bottom of the fence to allow small animals to pass beneath.	PM include fencing specifications in contract documents.  Biology inspect fence	Before project goes out to bid.  Upon installation of the fence	PP&C PM	PM cite to relevant sections and/or drawings in contract documents.  PP&C PM document in project file that fence is installed as specified.
<b>MSC Projects Mitigation Measure BIO-10B:</b> Wherever the paved access road crosses terrace portions of the YLR, no parking will be allowed along the road from sunset to sunrise.	PM include parking limitation in contract documents.	Before project goes out to bid.	PP&C	PM cite to relevant sections of contract documents.
<b>MSC Projects Mitigation Measure BIO-10C:</b> No construction activity that involves movement of vehicles or heavy equipment on or off road will be allowed during night hours, that is, from 30 minutes after sunset to 30 minutes before sunrise unless approved by a qualified biologist.	PM include limitation on construction activity in contract documents.	Before project goes out to bid.	PP&C PM	PM cite to relevant sections of contract documents. Include in project file documentation of biologist's approval of any night-time construction activity.
<b>MSC Projects Mitigation Measure BIO-11:</b> The walls and roofs of the greenhouses will be equipped with appropriate	PM include requirement for shading in contract documents.	Before project goes out to bid.	PP&C PM	PM cite to relevant sections of contract documents in mitigation

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shades, which will be used during periods of night lighting, or will be screened with earthen berms and vegetation designed and positioned in such a way as to exclude direct light from the greenhouses from spilling into YLR during night time.	Inspect shade installation for light control effectiveness and work with contractor to modify if necessary for light control.	Upon installation		monitoring checklist.  PP&C PM confirms shades are installed as specified.
<b>MSC Projects Mitigation Measure BIO-12A:</b> During the first rainy season after brush wattles are installed in the outflow channel downstream of wetland W1, a biologist will inspect the channel after each major storm to assess whether wattles have been effective in slowing flows and decreasing erosion, and have not introduced any unanticipated effects, such as increased erosion under the wattles. If new erosion is observed, the wattles would be removed and an alternative solution for erosion repairs proposed.	Reserve will contract with qualified biologist to conduct survey as specified.  Biologist inspect channel for erosion.  Reserve remove wattles and implement alternative solution.	Before October 1 of the first rainy season after brush wattles are installed.  After each major storm, during first rainy season after brush wattles are installed.  If new erosion is observed.	YLR	YLR staff document inspections and any subsequent actions in SRP annual report.
<b>MSC Projects Mitigation Measure BIO-12B:</b> A silt fence will be erected along the north side of the Delaware Avenue Extension prior to any work on the roadbed removal project and will be maintained throughout construction on this project element. If any silt or other material is inadvertently dropped into wetland W3, it will be removed by hand shovel.	Include fencing specifications and requirements for hand removal of materials from wetlands in contract documents.  Inspect silt fence to confirm effectiveness	Before project goes out to bid.  Periodically throughout construction	PP&C PM  PP&C Inspector	PM cite to relevant sections of contract documents in mitigation monitoring checklist.  Document in mitigation monitoring checklist.
<b>MSC Projects Mitigation Measure BIO-12C:</b> Erosion repairs at the NOAA outfall west of McAllister Way will be confined to hand placement of rocks, or in conjunction with “soft” engineering solutions, such as placement of brush wattles in the channel, which will serve as a wetland restoration measure. Fence design will minimize or avoid intrusion into the channel.	PM ensure that mitigation requirements are incorporated into project design.	During construction drawing phase.	PP&C PM	PM cite to relevant sections of contract documents in mitigation monitoring checklist.
<b>MSC Projects Mitigation Measure BIO-12D:</b> At the point where the proposed De Anza pedestrian trail crosses the outlet culvert at the east end of wetland W4, the trail crossing will be designed to avoid fill into the wetland and outflow channel. This may be accomplished by use of buttresses placed outside wetland margins to support an elevated walkway, or any other	PM ensure that mitigation requirements are incorporated into project design.	During construction drawing phase.	PP&C PM	PM cite to relevant sections of contract documents in mitigation monitoring checklist.  PP&C PM confirms work is completed as specified.

**Marine Science Campus Projects Mitigation Monitoring and Reporting Program**

**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
solution that ensures that no fill is spilled into the wetland during construction.				
<p><b>MSC Projects Mitigation Measure BIO-15:</b> A qualified biologist or biologists will be identified as Biological Mitigation Coordinator, prior to the start of the construction documentation phase of the project to be involved in coordination and communication of biological mitigation requirements throughout project planning and construction. The responsibilities of the Biological Mitigation Coordinator will include: review of project specifications to ensure that biological mitigation measures are accurately conveyed to contractors; review of project plans to advise on the need for and specific placement of exclusion fencing for each project elements; assistance with regulatory consultation as needed; attendance at regular meeting with project managers and contractors to ensure that biological mitigation measures are appropriately included in the construction schedule to ensure that these measures are effective; and coordination of biological monitoring.</p>	<p>Campus will contract with qualified biologist to conduct survey as specified.</p> <p>PM set up and coordinate regular project meetings to include Biologist</p> <p>Biological monitor review project specifications and plans, attend regular meetings with University project manager and contractors, with PM to coordinate biological surveys and monitoring with construction activities and document in monitoring logs</p>	<p>Before project goes out to bid</p> <p>Throughout construction</p> <p>Throughout construction</p>	PP&C PM	PM include in project file: comments of biological monitor on project plans and specifications; responses to these comments; meeting minutes or other meeting documentation, and Biologist’s monitoring logs.
<p><b>CLRDP Project-Specific Mitigation Measure 4.5-1:</b> 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.</p> <p>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>	<p>Include in construction contract the requirement that the University be notified if suspected human bone is discovered or in the event of an archaeological discovery.</p> <p>Stop work in vicinity and contact archaeologist in the event of an archaeological discovery and 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</p>	<p>Prior to issuing bid packet.</p> <p>Upon discovery , prior to continuing construction</p>	<p>PP&amp;C</p> <p>PP&amp;C</p>	<p>Cited specification in project MMR</p> <p>Document find, consultation results, archaeological report in project file.</p>

**Marine Science Campus Projects Mitigation Monitoring and Reporting Program**

**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
	determines the remains are Native American.			
<p><b>MSC Projects Mitigation Measure CULT-2A:</b> An archaeologist will be present during road ripping along the Delaware Avenue Extension to document the cross section of the roadbed and any associated railroad-related features that might be uncovered. If potentially significant features are uncovered, work in the immediate vicinity will stop until the find can be recorded and assessed. An archaeologist also will be present during any work in the W1 channel that may modify any existing concrete features in the channel to document and assess these features.</p>	<p>Campus will contract with qualified archaeologist to conduct survey as specified.</p> <p>Archaeologist will monitor during road ripping and during work in W1 channel that may modify existing concrete structures.</p> <p>PM will stop work until find can be recorded and assessed.</p>	<p>Before work begins on the restoration of Delaware Avenue Extension or in W1 channel.</p> <p>During road ripping and during work in W1 channel.</p> <p>If potentially significant features are uncovered.</p>	PP&C PM	PM include archaeologist's monitoring report in project file.
<p><b>MSC Project Mitigation Measure CULT-2B:</b> The interpretive signage included in the proposed MSCCI Phase A and NEF Projects will include at least one sign commemorating the history of the Ocean Shore Railroad. The Campus will develop appropriate content for the sign through archival research into the construction, route, and history of the railroad. The sign will at a minimum delineate the route of the railroad line; provide a brief discussion of its significance in local history; and interpret any physical remnants that are uncovered during construction. The manager of the YLR will be consulted about the appropriate placement of historic signage along the pedestrian path that follows the former railroad route.</p>	PM coordinate with historian or archaeologist to ensure that appropriate text is developed and that sign is included in MSCCI Phase A or NEF project specifications.	During detailed design and prior to issuing bid documents.	PP&C PM	PM cite relevant sections of contract specifications in mitigation monitoring checklist.
<p><b>MSC Projects Mitigation HYD-2:</b> The Campus shall monitor water levels in the root zones in wetlands W4 and W5 on a weekly basis for at least one full wet season (Oct. 1-May 15) before development of the CBB and MSCCI Projects begins, and use the data to relate water levels at the monitoring points to an Antecedent Precipitation Index (API). After construction of the proposed CBB and MSCCI Projects has been completed, the Campus shall continue the monitoring weekly for two winters. If the measured water levels at the monitoring points fall below the lower 95-percent confidence limit of the water</p>	YLR and PP&C civil engineering or environmental planning staff install piezometers in wetlands W4 and W5 using methodologies set forth in the US Army Corps of Engineers 2005 <i>Technical Standard for Water-Table Monitoring of Potential Wetland Sites</i> . Monitor water	Monitor weekly for at least one full wet season (Oct. 1-May 15) before project construction begins.	YLR and PP&C civil engineering or environmental planning staff	PP&C environmental planning staff include all monitoring data and analysis in project file.

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**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
level-API curve for 2 consecutive weeks during any monitored wet season, the Campus shall take actions as necessary to return the wetland water levels to pre-project conditions. Examples of the types of actions the Campus could undertake are modifying the outlet of Detention Basin 1 or the outlet to the wetland W4 buffer from Parking Lot D to increase the flow to wetland W4.	<p>levels in the piezometers, obtain site precipitation data, and create an API.</p> <p>YLR continue monitoring after construction and compare results to API.</p> <p>PP&amp;C ensure that storm water management features are modified as necessary to return the wetland water levels to pre-project conditions as defined by the API.</p>	<p>Weekly, during the wet season, for two years after construction of the CBB and MSCI projects has been completed.</p> <p>If the measured water levels at the monitoring points fall below the lower 95-percent confidence limit of the water level-API curve for 2 consecutive weeks during any monitored wet season.</p>	<p>YLR and PP&amp;C</p> <p>PP&amp;C</p>	
<b>MSC Projects Mitigation Measure HYD-3:</b> Where the new sewer line extends below the bedrock surface, concrete trench plugs that will act hydraulic barriers to groundwater flow shall be installed in the trench. Between the bedrock of bedrock and the pavement section, the trench backfill shall consist of permeable materials.	PM ensure that mitigation requirement is incorporated into sewer line design.	During construction drawing phase.	PP&C	<p>PM cite to relevant drawings in mitigation monitoring checklist.</p> <p>PP&amp;C PM confirm sewer line is constructed as specified.</p>
<b>MSC Mitigation Measure LU-1:</b> Implement CLRDP Amendment #1, proposed actions 1 through 10.	The Regents or delegated authority adopt proposed CLRDP Amendment #1 actions 1 through 10.	With the first approval of any of the MSC Projects.	PP&C/ Regents/ Delegated authority	PM include approved Action Item in project file.
<b>MSC Mitigation Measure LU-2A:</b> Amend CLRDP IM 5.3.7, as follows: " <del>All parking demand for employees, students and visitors shall be satisfied on Campus and n</del> New development shall include adequate and enforceable measures to ensure that <del>all parking demand is satisfied on campus</del> associated with CLRDP development does not impact public parking or coastal access on streets adjacent to the MSC, including Delaware Avenue.	Include proposed CLRDP Amendment #1 action 11 in action for CBB or MSCI, whichever is adopted first.	With approval of the CBB Project and/or MSCI Project	PP&C/ Regents/ Delegated authority	PM include approved Action Item in project file.
<b>MSC Mitigation Measure LU-2B:</b> The Campus will implement MSC Mitigation Measures TRA-1A through -1C.	See below.			
<b>CLRDP Project-Specific Mitigation Measure 4.11-4:</b> Prior	Develop construction noise	Prior to initiation of	Physical Planning	Document measures adopted and

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**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
<p>to the initiation of construction, the University shall approve a construction noise mitigation program including but not limited to the following:</p> <p>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:</p> <ul style="list-style-type: none"> <li>• 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).</li> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> <li>• Internal combustion engines used for any purpose at the construction sites shall be equipped with a muffler of a type recommended by the manufacturer.</li> <li>• 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);</li> <li>• Impact tools (e.g., jack hammers, pavement breakers,</li> </ul>	<p>mitigation program and adopt as part of standard construction contract specifications</p> <p>Inspect construction site to verify that measures are being implemented.</p>	<p>construction under the CLRDP</p> <p>During construction</p>	<p>and Construction</p> <p>Physical Planning and Construction</p>	<p>compliance monitoring in CLRDP annual mitigation monitoring report</p>

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**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
<p>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.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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</li> </ul>	<p>Conduct project-specific noise analysis and develop appropriate mitigation measures, as necessary.</p>	<p>During CEQA analysis for long-term projects</p>	<p>Physical Planning and Construction</p>	<p>Document analyses in CEQA document</p>

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**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
<p>may be required. These future facilities may be sensitive receptors or may act as barriers to noise approaching other sensitive receptors.</p>				
<p><b>MSC Projects Mitigation NOIS-4:</b> If construction of the proposed MSCCI and NEF project elements in the vicinity of the MSC entrance overlaps with construction of a desalination plant on the property at the northeast corner of Delaware Avenue and Shaffer Road, the Campus shall evaluate potential cumulative noise impacts at the residences to the east of the MSC. If necessary to reduce noise at these residential receptors to levels below the relevant significance threshold, the Campus shall construct a temporary wood sound wall between the MSC entrance construction and the eastern boundary of the campus. The Campus shall also coordinate with the City of Santa Cruz on the scheduling of construction activities in the MSC entrance area to minimize the generation of cumulative construction noise.</p>	<p>Consult with the City of Santa Cruz to determine whether and what elements of desalination plant construction will coincide with MSC Projects construction schedule.</p> <p>If construction will be concurrent, evaluate concurrent activity locations and equipment to determine whether construction noise threshold will be exceeded at nearby residences.</p> <p>If thresholds will be exceeded, coordinate with City to reduce concurrent activity, or install noise-attenuating devices as needed.</p>	<p>Prior to the start of MSCCI and NEF construction.</p> <p>Upon determining that planned construction schedules will overlap.</p> <p>Prior to any period of concurrent construction activity.</p>	<p>PP&amp;C</p> <p>PP&amp;C/ PM</p> <p>PP&amp;C in consultation with City of Santa Cruz</p>	<p>Document consultation in project file</p> <p>Include noise evaluation report in project file</p> <p>Include documentation of consultation and installation of noise attenuation (if needed) in project file.</p>
<p><b>CLRDP General Mitigation Measure 4.15-2:</b> UCSC will contribute its fair-share towards construction of a separate pedestrian path on the north side of Delaware Avenue from Shaffer Road to the existing sidewalk west of Natural Bridges Drive. This improvement could be as simple as installing a raised asphalt curb approximately five to six feet away from the existing curb or edge of pavement with openings to maintain existing drainage. Design and construction of this improvement to close the existing gap in pedestrian facilities in this area can and should be completed by the City of Santa Cruz since Delaware Avenue is under its jurisdiction.</p>	<p>Negotiate with City to determine an appropriate fair share contribution towards necessary road improvements.</p>	<p>Prior to occupancy of first project</p>	<p>Physical Planning and Construction</p>	<p>Report fair share payments in CLRDP Annual MMR</p>
<p><b>CLRDP General Mitigation Measure 4.15-6</b> [applicable portions]: ...The University shall contribute its fair share toward the cost of improvements to the intersections at High</p>	<p>For each project proposed under CLRDP, analyze number of peak hour trips added to</p>	<p>During project-level environmental review</p>	<p>Physical Planning and Construction</p>	<p>Report analytical results in CEQA document</p>

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<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
<p>Street/Western Drive....Mitigation measures include traffic signals at the High Street/Western ....</p>	<p>intersections by each project.</p> <p>Negotiate with City to determine an appropriate fair share contribution towards necessary road improvements.</p>	<p>Prior to Project occupancy</p>	<p>Physical Planning and Construction</p>	<p>Report payments in CLRDP annual MMR</p>
<p><b>MSC Projects Mitigation TRA-1A:</b> UCSC shall widely disseminate transportation information to visitors, staff, faculty, and students at the Marine Science Campus through the UCSC Web page. Printed information shall also be made available at central locations on the Marine Science Campus, and new employees at the site will be informed of transportation options and referred to the online materials.</p> <p>In addition, students registering for classes or internships at the MSC shall be informed of parking restriction at the MSC and of transportation options including computer-matched carpooling, transit, and bicycle and pedestrian routes to the site. All such TDM and other transportation materials shall include clear description of the available shuttles, SCMTD bus options, and other alternative transportation programs (including schedules, costs, etc.); availability of secured bicycle storage facilities within buildings for employees; availability of lockers and showers; Campus maps with appropriate facilities identified; etc.</p>	<p>TAPS will include information about transportation options and parking restrictions at the MSC on the TAPS website and make this information available to Human Resources.</p> <p>TAPS shall ensure that information is provided to students at registration or at first class meeting or at first class meeting.</p>	<p>At occupancy of the CBB Project and at the beginning of each quarter thereafter.</p>	<p>TAPS</p>	<p>TAPS provide documentation of informational programs to PP&amp;C planning staff to include in annual CLRDP mitigation monitoring file and summarize in annual mitigation monitoring report.</p>
<p><b>MSC Projects Mitigation Measure TRA-1B:</b> UC Santa Cruz will conduct a baseline survey of parking utilization on both sides of the segment of Delaware Avenue between Natural Bridges Dr. and the campus entrance in fall 2011 and then will monitor Delaware Ave. parking utilization in this area twice annually (fall and spring) during times and days when MSC classes are scheduled. If parking utilization exceeds 80 percent and there is evidence of increasing utilization from year to year, or if there is qualitative evidence of unmet public coastal access parking demand, such as public complaints, increased circulation by drivers seeking parking, or parking shortages in the 2300 Delaware Ave. lots independent of increased population at that facility, implement TRA-1C.</p>	<p>TAPS will conduct baseline parking utilization survey and circulation monitoring as specified in the mitigation.</p> <p>TAPS will post email, phone and other contact information on its website, on the Seymour Discovery Center website, and in all published parking information materials, and will assign a staff member to be responsible for monitoring and addressing parking complaints</p>	<p>Twice a year during academic class periods and days, beginning in Fall 2011.</p> <p>Prior to occupancy of CBB</p>	<p>TAPS</p> <p>TAPS</p>	<p>TAPS provide document results of survey to PP&amp;C planning staff for inclusion in annual CLRDP mitigation monitoring file.</p> <p>TAPS will tabulate complaints and provide explanation of how complaints were addressed and this information will be summarized in the annual CLRDP mitigation monitoring file. TAPS also will report when TRA-1C has been triggered, or provide evidence based on</p>

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**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
	and reporting on results as basis for determining whether implementation of TRA-1C is needed.			monitoring and complaint resolution that TRA-1C has not been triggered.
<p><b>MSC Projects Mitigation Measure TRA-1C:</b> UCSC will implement the following or other equally effective measures in a coordinated program to reduce UCSC contributions to parking on Delaware Ave. such that total parking utilization during weekday class times is 70 percent or less:</p> <ul style="list-style-type: none"> <li>• Work with the City of Santa Cruz to evaluate whether parking regulation is needed and, if so, assist the City in developing and implementing a City-UCSC permit program for Delaware Ave. parking to regulate the number of vehicles that may park or parking duration.</li> <li>• Provide off-street parking by permit at UCSC's 2300 Delaware Ave. facility or other nearby locations. This option would be implemented most effectively in conjunction with parking management on Delaware Ave.</li> <li>• Implement CLRDP IM 5.7.3: UCSC shall provide a shuttle service or bike shuttle service between the main campus and MSC as demand warrants and as needed to meet the 40 percent travel mode split goal. Shuttles shall be scheduled to correspond with classes, and class schedules will be developed in coordination with TAPS to minimize operational demands.</li> </ul>	Procedures will vary depending on the measure selected.	This mitigation to be implemented if conditions described in MSC Projects Mitigation Measure TRA-1B are met., based on results of monitoring and annual monitoring report..	TAPS	TAPS will provide documentation of measures taken to reduce parking demand to PP&C planning staff annually, for inclusion in annual CLRDP mitigation monitoring file.
<p><b>MSC Mitigation Measure TRA-2:</b> The University made a fair share payment in 2008 for impacts to this intersection under the 2008 Comprehensive Settlement Agreement. The CBB Project will contribute equivalent payments to the City's Traffic Impact Fee program for the project's proportionate share contribution to the cost of the improvement consistent with CLRDP General MM 4.15-6, which is included in the project, and based on trips generated by building gsf (or other methodology agreed to by the City to determine trip contribution), as agreed under the 2008 Comprehensive Settlement Agreement. The City has included the required improvement and its cost on its Traffic Improvement Fee study list.</p>	Director of Campus Planning consult with City to determine project payment based on trip contribution; Executive Vice Chancellor authorize payment.	Before occupancy of the CBB Project.	PP&C planning staff, EVC	Campus planning staff document in project file and annual CLRDP report that payment has been made.

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<b>MSC Projects Mitigation Measure TRA-3A:</b> UC Santa Cruz will implement MSC Projects Mitigation Measure TRA-1A to reduce campus-related motor vehicle trip generation and related parking demand.	See TRA-1A, above			
<b>MSC Projects Mitigation Measure TRA-3B:</b> UCSC will implement CLRDP General Mitigation Measure 4.15-2, to contribute toward sidewalk improvements for increased pedestrian safety and ease of access.	Implemented and monitored as part of the CLRDP mitigation monitoring and reporting program.	When City determines to make improvement	PP&C/ City of Santa Cruz	PP&C will report status of sidewalk contribution in CLRDP annual MMR
<b>MSC Projects Mitigation TRA-4A:</b> Parking lot entrances to campus roads will be stop sign-controlled to minimize potential motor vehicle, pedestrian and bicycle traffic conflicts.	PM will ensure that stop signs are included in final bid drawings.	During final design and before project goes out to bid.	PP&C PM	PM cite relevant construction specifications and drawings in mitigation monitoring checklist.
<b>MSC Projects Mitigation TRA-4B:</b> A stop sign will be installed on the new Delaware Avenue Extension at the campus exit (eastbound) <u>and other traffic-calming measures will be included in the entrance design if warranted based on design assessment.</u> <del>and</del> The University <u>also</u> will coordinate with the City of Santa Cruz regarding recommended installation of stop signs at the MSC entrance intersection on Shaffer Road (southbound), Delaware Avenue (westbound), and the exit from the De Anza residential community.	PM will ensure that design measures as needed for traffic calming at the entrance, such as a speed bump, are assessed during final design and that, at a minimum, stop sign at campus entrance is included in project design and construction specifications.  Director of Campus Planning/ TAPS consult with City regarding installation of stop signs at other locations at the Delaware Avenue and Shaffer Road intersection.	During final design, before project construction goes out to bid.  Before the new campus road is operational	PP&C PM  PP&C Director of Campus Planning/ TAPS	PM cite relevant sections and drawings of contract documents in mitigation monitoring checklist and include project notes documenting consideration of other traffic calming measures for the entrance in project file.  PM document coordination with City in project file.
<b>MSC Projects Mitigation Measures TRA-4C:</b> <u>When new fencing is installed along the northern and eastern boundaries of the campus, signage will be posted on the fence at a location adjacent to each pedestrian route advising caution in crossing the adjacent railroad tracks.</u>	PM ensure that signage is included in fence specifications and drawings in construction bid documents	Prior to issuing bid documents	PP&C/ PM	PM cite relevant sections and drawings of contract documents in mitigation monitoring checklist
<b>MSC Projects Mitigation Measure TRA-5A:</b> Delaware Avenue Extension will not be closed to vehicle traffic until the new entry road proposed by the MSCI Phase A Project is	PM include requirement in contract documents.	Before project goes out to bid.	PP&C PM	PM cite relevant sections and drawings of contract documents in mitigation monitoring checklist.

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operational for normal vehicle use.				
<p><b>MSC Projects Mitigation Measure TRA-5B:</b> The University will include the following requirements in construction contract specifications to minimize traffic blockage and delays:</p> <ul style="list-style-type: none"> <li>• Construction work shall be conducted so as to ensure the least possible obstruction to traffic.</li> <li>• At no time will more than one lane of Delaware Avenue Extension or McAllister Way be blocked.</li> <li>• Contractors shall provide traffic control when any vehicle lane is blocked.</li> <li>• Contractors shall notify the University’s representative at least two weeks before any partial road closure.</li> <li>• When a pedestrian/bicycle path will be blocked, detour signs will be installed to clearly designate an alternate route. Temporary fencing or other indicators of pedestrian and bicycle hazards will be provided.</li> <li>• Fire hydrants shall be kept accessible to fire- fighting equipment at all times.</li> </ul>	PM include specified requirements in contract documents.	Before project goes out to bid.	PP&C	<p>PM cite relevant sections and drawings of contract documents in mitigation monitoring checklist.</p> <p>PM confirm implementation of mitigation at quarterly mitigation monitoring checklists during construction phase.</p>
<p><b>MSC Projects Mitigation Measure TRA-5C:</b> Construction project managers will notify City police and fire departments, the Director of the Seymour Center, NOAA, CDFG, and campus dispatchers in advance of lane closures, to ensure adequate access for routine operation and emergency vehicles during temporary lane closures.</p>	As specified in the mitigation.	Ongoing, throughout construction.	PP&C PM	PM maintain record of notifications in project file.
<p><b>MSC Projects Mitigation Measure TRA-5D:</b> The Campus will coordinate among contractors and subcontractors to minimize the number and extent of simultaneous construction activities that affect driveways, paths, and roadways, and will require contractors to plan for daily construction activities a week in advance, provide a schedule, and observe the schedule to the greatest extent feasible. The University’s representative will develop a weekly schedule of contractor activities and provide to NOAA, CDFG, the Director of the Seymour Center and other affected parties. Construction project managers will coordinate regularly with the University’s representative who will notify NOAA, CDFG, the manager of LML, and the director of the Seymour Marine Discovery Center to keep</p>	<p>PM include scheduling requirements in project contract documents.</p> <p>PM develop weekly schedule of contractor activities and make notifications as specified in the mitigation.</p>	<p>Before project goes out to bid.</p> <p>Ongoing, throughout construction.</p>	PP&C PM	<p>PM cite relevant section of contract documents in mitigation monitoring checklist.</p> <p>PM maintain record of notifications in project file.</p>

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<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
them informed of upcoming construction activities; path, lane or parking lot closures; and major equipment activity or material hauling as far in advance as feasible, to minimize potential construction conflicts with routine and special event traffic.				
<b>MSC Projects Mitigation Measure TRA-5E:</b> The Campus will coordinate regularly with the City of Santa Cruz on the timing and nature of work at the campus entrance and along Shaffer Road to minimize construction traffic conflicts with residents of the De Anza facility and with users of the Homeless Garden Project, and will inform De Anza residents and Homeless Garden Project users of construction activity with signs or flyers.	PM coordinate with City and notify De Anza residents and Homeless Garden Project as specified in the mitigation.	Throughout construction, at times of heavy truck traffic.	PP&C PM	PM maintain record of communications with City, De Anza residents, and Homeless Garden Project.
<b>MSC Projects Mitigation Measure TRA-5F:</b> The University will post flyers and/or signs at the MSC entrance and major campus facilities and provide the same for the Homeless Garden Project and the De Anza facility, with a University phone number or other means for the public to submit questions or complaints regarding construction traffic or traffic incidents, <del>and</del> will respond promptly to inquiries <u>and complaints</u> and, if warranted after investigation, take specific actions to resolve the complaint.	PM post flyers and/or sign as specified in the mitigation.	Throughout construction.	PP&C PM	PM maintain record of postings in project file.
<b>MSC Projects Mitigation Measure TRA-6:</b> Implement MSC Projects Mitigation TRA-2, above.	See TRA-2, above			
<b>CLRDP General Mitigation Measure 4.16-1A:</b> All toilets, urinals, showers, and washing machines installed as part of this project shall be specified as low-flush and low-flow in order to reduce onsite water consumption. The University shall install low-flow toilets and urinals that are 1.6 gallon/flush or less and low-flow showers that are 2 gallons per minute (gpm) or less in new development. Further, in all new residential uses washing machines must be certified by the Consortium on Energy Efficiency (CEE) to be water- and energy-efficient (such as those with the Energy Star® label).	Include in construction specifications the requirement for low-flush and low-flow equipment.	Prior to issuing bid package	Physical Planning and Construction	Cite specification numbers in MMR
<b>CLRDP General Mitigation Measure 4.16-1B:</b> If and when	To be determined, based on	During the design of each	Physical Planning	Report water saving offsets in

**Marine Science Campus Projects Mitigation Monitoring and Reporting Program**

**Coastal Biology Building Project (including MSC Parking Phase 1 and MSC EH&S Facility Projects and former MSCI Project)**

<b>Project-Specific Mitigation Measure</b>	<b>Mitigation Procedures</b>	<b>Mitigation Timing</b>	<b>Mitigation Responsibility</b>	<b>Monitoring and Reporting Procedure</b>
the City adopts policies requiring all projects (or all similar institutional or commercial projects) within the water system to offset new water demand or any other water demand reduction policies, the University will consider voluntary compliance with the policy, with appropriate credit being given to account for UCSC's previous water conservation activities (in excess of that accomplished by the similar institutional and/or commercial entities covered by the City policy).	City policy.	project, following the adoption of pertinent policies by the City of Santa Cruz OT	and Construction	CLRDP Annual MMR
<b>CLRDP General Mitigation Measure 4.16-1D:</b> The City can and should identify and develop new water supplies to reliably accommodate increases in water supply due to UCSC Marine Science Campus CLRDP-related growth and other background growth during normal and drought conditions.	Outside the jurisdiction of UCSC.	--	City of Santa Cruz	Report status in CLRDP Annual MMR
<b>MSC Projects Mitigation Measure UTIL-9:</b> Before CBB Project construction is completed, the Campus shall conduct a water efficiency study of existing University facilities at the MSC. The study will assess existing campus water uses, identify options for reducing water consumption, prioritize feasible improvements based on the amount of potential water savings and cost effectiveness, and recommend top priority measures for implementation within the succeeding five years. The Campus shall implement the top priority measures within five years of completing the study.	Physical Plant conduct study.  Physical Plant and other units identified in the study implement top priority measures.	Before occupancy of CBB Project.  Within five years of completing the study.	Physical Plant  Physical Plant	Physical Plant provide results of study to Campus planning staff, who will summarize the results in the annual CLRDP mitigation monitoring report.  Physical Plant track implementation and annually provide summary to Campus planning staff, who will summarize the information in the annual CLRDP mitigation monitoring report.