

UC Santa Cruz
Marine Science Campus CLRDP
Environmental Impact Report
(SCH No. 2001112014)
Addendum #1:
Proposed Revisions to the CLRDP

November 2006

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UC Santa Cruz Marine Science Campus CLRDP Addendum #1 to Environmental Impact Report (SCH No. 2001112014)

1. INTRODUCTION

In September 2004, The Regents of the University of California certified the Final Environmental Impact Report (SCH No. 2001112014) for the University of California Santa Cruz (UCSC) Marine Science Campus Coastal Long Range Development Plan (CLRDP) (the 2004 CLRDP FEIR), and adopted findings and a mitigation monitoring program pursuant to the California Environmental Quality Act (CEQA). Since September 2004, UCSC has met with staff from the California Coastal Commission (CCC) on numerous occasions to discuss the CLRDP and its relationship to the California Coastal Act. These meetings resulted in numerous edits to the CLRDP. A new version of CLRDP was presented to the CCC for action in February 2006. Based on comments at the February hearing, the CLRDP was further edited in March 2006 and again presented to the CCC in April 2006. At the April 2006 CCC hearing, individual Coastal Commissioners expressed concerns over some aspects of the development plan, so UCSC formally withdrew its CLRDP application to allow time for study of these concerns. UCSC completed the latest round of edits to the CLRDP in November 2006 and is now preparing to resubmit the document to CCC for its review and approval.

2. PURPOSE OF ADDENDUM #1

This Addendum to the 2004 CLRDP FEIR describes and analyzes proposed CLRDP changes, changed circumstances, and new information available since The Board of Regents of the University of California (The Regents) adopted the 2004 CLRDP and certified the 2004 CLRDP FEIR in September 2004. This addendum was prepared in accordance with CEQA to inform the University's consideration and action on the revised 2006 CLRDP for resubmittal to the California Coastal Commission. The purpose of this Addendum is to describe the proposed revisions to the CLRDP that have been edited into the document since September 2004, including changes in the project that warrant minor changes to the FEIR, and to meet the University's CEQA obligations for action on the proposed project. As described in Public Resources Code Section 21166 and CEQA Guidelines Section 15164, preparation of an addendum is appropriate where there have been changes in a proposed project and its previously certified Environmental Impact Report, but none of the conditions that call for a supplemental

or subsequent EIR have occurred. Those conditions are identified in the CEQA Guidelines. Under section 15162, a subsequent EIR is required if:

- Substantial changes are proposed in the project 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; or
- Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revision 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; or
- 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:
 - ✓ The project would have one or more significant effects not previously discussed in a previous EIR;
 - ✓ Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - ✓ 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
 - ✓ 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 measures or alternative.

Under section 15163, a supplementary EIR is required when any of the conditions under section 15162 have occurred and only minor additions or changes to the EIR would be necessary." As demonstrated in the environmental analysis below, none of the conditions that would require a Subsequent or Supplemental EIR has been triggered, and an Addendum to the 2004 CLRDP FEIR is appropriate under CEQA to assess the potential environmental effects of the revisions proposed for the 2006 CLRDP.

3. REVISED PROJECT DESCRIPTION

The 2004 CLRDP FEIR analyzed the approval of: (1) a CLRDP for the UC Santa Cruz Marine Science Campus; and (2) specific development plans for five near-term projects within the Marine Science Campus. The 2004 CLRDP contained a building program for 409,100 square feet of new building construction and 152,000 square feet of new outdoor development. The five near-term projects included: the Center for Ocean Health Phase II, the USGS Western Coastal and Marine Geology Facility, the Sea Otter Research and Conservation Center, the Shared Campus Warehouse and Laydown Facility, and 42 apartment/townhouse units.

Three categories of revisions to the CLRDP Project Description are proposed:

- Ministerial and non-substantive revisions to the CLRDP;
- Proposed minor revisions and CLRDP amendments¹ that, because of their character and/or the affected location, require study to determine if they meet the thresholds set forth in Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163 for evaluation in a Supplemental or Subsequent EIR (e.g., reduction in on-campus housing or revisions to locational restrictions allowing uses in areas where such uses were previously disallowed); and
- Proposed minor revisions and CLRDP amendments that have no potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects (e.g., reductions in developable area to avoid newly identified wetland resources or revisions to development procedures set forth to guide future development).

3.1 Ministerial and Non-Substantive Revisions

In the approximately two years since The Regents approved the CLRDP and certified the 2004 CLRDP FEIR, there have been numerous ministerial-type edits made to the CLRDP in response to comments from Coastal Commission staff. Ministerial edits were made to correct minor inaccuracies in the CLRDP that if formally accepted would have no implications with respect to the environmental impacts of the project. These include but are not limited to: fixing

¹ For the purpose of this addendum, the term “amendment” is a term of art used by the University to denote revision that results in the redesignation of land from one land use category to another.

typographical errors, reorganizing sections, editing to ensure consistency between chapters and sections, revising descriptions of existing public access resources, adding notes regarding the permit status of existing structures, revising figures to correct labels, deleting non-essential appendices containing background information, and streamlining policies and implementation measures to improve clarity and remove redundant language. Under Section 21080(b)(1) of CEQA, these changes and other such ministerial changes, which are too numerous to enumerate in this addendum, fall outside the scope of required CEQA analysis. Therefore, no further discussion of these changes is provided in this Addendum.

3.2 CLRDP Minor Amendment and Revisions Requiring Analysis

The second category of proposed changes to the CLRDP involves one minor amendment and three revisions that require study to determine if, under the standards of Sections 15162 and 15163, they trigger the need to prepare a Supplemental or Subsequent EIR. Each of these three changes is analyzed in the following section of the addendum.

3.2.1 Proposed Minor CLRDP Amendment

The one proposed amendment in this category of change is as follows:

1. Elimination of 80 Apartment/Townhouse Units: UCSC proposes to eliminate 80 apartment/townhouse units from the building program and amend CLRDP Figure 5.1 (Building Program) to reflect this change. The elimination of this housing would reduce the CLRDP Building Program by 82,000 square feet (see revised CLRDP Figure 5.1, showing the building program, in Section 3.4 below). The 80 units of apartment and townhouses previously were included in the CLRDP Building program to support immediate access to the Marine Science Campus.² UCSC has revised Figure 7.2, Illustrative Campus Buildout Site Plan, to reflect the elimination of the program for 80 units of support housing from the Middle Terrace development zone (see revised CLRDP Figure 7.2, showing illustrative plan, in Section 3.4 below). The CLRDP Building Program retains building space for 10 overnight visitor accommodations and 30

² Initiated by UCSC in response to public testimony and Coastal Commissioner comments at the April 2006 hearing.

researcher rooms that are planned in the Middle Terrace development zone.³ See Item No. 3, below, for a description of additional changes in the Middle Terrace area.

In accordance with this amendment, one CLRDP Planning Objective (CLRDP Section 4.1) would be revised to ensure consistency between the CLRDP Planning Objectives and the CLRDP Building Program as follows:

Planning for 20 Years of Growth (8th Bullet): Create a campus that promotes round-the-clock immersion in the research environment and extends interaction and collaboration among scientists, students, and administrators beyond formal work settings by providing ~~support housing~~ short-term accommodations for researchers, educators, students, caretakers, and visitors that is adjacent to coastal-dependent activities ~~and of sufficient capacity to support approximately 20 percent of projected campus population.~~

This amendment is not considered a substantial change in CLRDP principle or policy. The amendment eliminates program for 80 units of support housing and its underlying justification from the CLRDP but does not preclude the University from achieving its underlying program. The CLRDP includes five land use designations. Four of these are dedicated to open space and habitat protection of various kinds. Only one land use designation, “Research and Education Mixed Use,” allows development and building space uses. Under the revised 2006 CLRDP, despite the elimination of program for 80 units of housing, all remaining elements of the CLRDP Building Program including: marine research and education facilities, support housing, equipment storage and maintenance, outdoor research, seawater system expansion, and parking will still be implemented within the Research and Education Mixed Use area. Although the amount of support housing—and thus the overall amount of envisioned development—will be reduced, the part of the CLRDP Building Program dedicated to marine research and education facilities is unaffected by these changes.

The 2004 CLRDP’s justification for the 80 units of support housing was two-fold: 1) for the UC Santa Cruz Marine Science Campus to compete effectively with other

³ These remaining accommodations are not shown separately in Figure 7.2 but are instead incorporated into the square footage of research and education buildings shown in the Middle Terrace.

distinguished marine science institutions in the recruitment of excellent new faculty and researchers, and 2) to ease housing impacts on the surrounding community. The reduced CLRDP Building Program retains 30 researcher rooms that could accommodate up to 60 faculty/researchers. By retaining this element, the CLRDP will provide the University a continuing, albeit reduced, capacity to attract excellent new faculty and researchers, despite the elimination of program for 80 units of housing. In addition, this remaining housing would to some degree offset the demand for housing created by the operation of an expanded marine science facility, although to a lesser degree than the program as originally proposed.⁴ Furthermore, as noted above, the elimination of program for 80 units of support housing does not affect the building program for marine research and education uses. In short, the basic mission of the Marine Science Campus is unaffected by the revision, although the capacity to provide researchers opportunities to be immersed in 24-hour research programs is somewhat reduced.

3.2.2 Other Proposed Revisions

The three revisions in this category of change are as follows:

2. New Middle Terrace/YLR Berm: UCSC proposes to include a new CLRDP Implementation Measure 3.5.8 that would require the construction of a berm along the eastern edge of YLR in Development Subarea #7 in conjunction with envisioned building construction west of McAllister Way in the Middle Terrace development zone (see new CLRDP Figure 5.4, Development Subareas, in Section 3.4 below). The berm would be sized so that no soil importation would be required from outside the development zone, i.e., the soil required to construct it would be less than or equal to the amount of soil that becomes available within the development zone as a result of grading to prepare building pads for new construction. The importation of soil from off-site or another development zone would be prohibited. The maximum size of the berm would be approximately 600 feet long, 50 feet wide, and 10 feet high with 2:1 sloping sides (the approximate height and width of an existing berm in the Lower Terrace), and the berm would be planted with native grasses and herbaceous shrubs consistent with CLRDP Appendix A, Resource Management Plan. The purpose of the berm would be to improve visual and noise

⁴ Population and housing impacts are discussed fully in Section 4.12 below.

separation between development in Middle Terrace development zone and YLR.⁵ As with all other specific projects identified in the CLRDP, the actual construction of the berm would require project-level CEQA review and filing of a Notice of Impending Development per CLRDP Chapter 8. The envisioned building construction west of McAllister Way will be as described in the 2004 CLRDP and CLRDP EIR.

3. Equipment Storage and Maintenance Facilities in the Middle Terrace: UCSC proposes to revise locational restrictions to allow equipment storage and maintenance facilities (e.g., warehouse, storage facility, and workshop) in the Middle Terrace development zone (see revised CLRDP Figure 5.3, Location Restrictions, in Section 3.4 below). Previously, equipment storage and maintenance facilities were restricted to the Upper Terrace development zone. The proposed revision would also permit development of equipment storage and maintenance facilities in limited areas in the Middle Terrace zone. The permissible locations for this use would be restricted to the area east of the planned major campus street or to Subareas No. 2 or 3, west of the same street.⁶ The proposed use includes a fenced corporation yard. Part or the entirety of this yard could be located in the easternmost part of the Middle Terrace development zone west of the De Anza Mobile Home Park under the revised plan. As with all other specific projects identified in the CLRDP, the actual construction of equipment and storage facilities would require project-level CEQA review.
4. New Emergency Access: UCSC proposes to include a new CLRDP Implementation Measure 5.1.7 that would require the University, in conjunction with planned building construction on the Marine Science Campus as described in the CLRDP, to collaborate with the City of Santa Cruz on the construction of an emergency grade crossing over Union Pacific Railroad (UPRR) tracks to connect the northern segment of Shaffer Road and Highway 1 with the Marine Science Campus. The purpose of this crossing would be to provide secondary, emergency-only, ingress and egress for the site. Bollards would be installed to restrict normal traffic. As with all other specific projects identified in the

⁵ Change initiated by Coastal Commission staff.

⁶ Change initiated by UCSC in response to proposed Revision No. 4 below that would reduce developable area in the Upper Terrace development zone

CLRDP, the actual construction of the grade crossing would require project-level CEQA review.⁷

5. Weeklong Accommodations within 500-Foot Agricultural Setback: Revision of CLRDP Implementation Measure 2.2.1 to allow short-term accommodations to 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. This item was a last-minute change, so in the interest of time this change was only discussed in the categories of environmental impact that require study to determine if the impacts associated with the revision meet the thresholds set forth in Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163 for evaluation in a Supplemental or Subsequent EIR. The impact categories within which this item is discussed are: Agricultural Resources (Section 4.2), Air Quality (Section 4.3), Hazards and Hazardous Materials (Section 4.7), Land Use and Planning (Section 4.9), and Noise (Section 4.11).

3.3 Other Minor CLRDP Amendments and Revisions

The third category of proposed changes involves amendments and revisions to the CLRDP that alter some aspects of the plan relative to its description in the FEIR but do not have potential to result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Neither have there been any other conditions that would trigger the need for a supplementary or subsequent EIR. The proposed CLRDP amendments and revisions are numbered in sequence continued from the previous section.

3.3.1 Other Proposed Minor CLRDP Amendments

The following proposed minor CLRDP amendments are proposed (see CLRDP Figure 5.2, Land Use Diagram, below in Section 3.4):

6. Upper Terrace Redesignation, Part 1: Redesignation of approximately 2.38 acres of land in the Upper Terrace of the Marine Science Campus from “Research and Education Mixed Use” to “Resource Protection Buffer.” This amendment would: a) expand the

⁷ Change initiated by UCSC in response to concern expressed by the City of Santa Cruz regarding emergency access.

previous 35- to 55-meter wildlife corridor/buffer for California red legged frog to 90 meters in width; b) protect the location of a small non-ESHA Wetland (Wetland W7) from filling and development; c) provide a second wildlife corridor along the southern perimeter of the development zone; and d) accommodate a buffer for a slightly expanded Wetland W3.⁸ The redesignation would reduce the size of the Upper Terrace development zone described in the 2004 CLRDP FEIR by 87,000 square feet, to approximately 72,000 square feet. In order to retain development potential in the reduced development zone, the University proposes to modify the previously proposed 70 percent impervious surface standard for the Upper Terrace development zone to allow 100 percent coverage of the reduced development area in the Upper Terrace development zone.⁹ The net result of the increase in allowable impervious cover percentage, accompanied by a substantial reduction in overall development area would be a reduction in the amount of total allowable impervious surface in the Upper Terrace from 111,300 square feet (i.e., 70 percent of 159,000 square feet) to 72,000 square feet.

7. Upper Terrace Redesignation, Part 2: Redesignation of several small areas in the Upper Terrace that total approximately 0.09 acres from “Open Space” to “Resource Protection Buffer” (0.07 acres) and “Wildlife Corridor” (0.02 acres) to accommodate a second wildlife corridor south of the Upper Terrace development zone.
8. Upper Terrace Redesignation, Part 3: Redesignation of approximately 0.11 acres of land south of the Upper Terrace from “Resource Protection Buffer” to “Resource Protection.” This amendment would protect a slightly expanded Wetland W3, which was re-delineated in August 2006.
9. Middle Terrace Redesignation, Part 1: Redesignation of two areas in the Middle Terrace (a total area of approximately 0.67 acres) from “Research and Education Mixed Use” to “Resource Protection Buffer” (0.67 acres) and “Resource Protection” (<0.01 acres). This amendment would protect the newly designated Wetland W9 and its buffer from future development, and provide an expanded 150-foot buffer around Wetland W5 (south of the NOAA facility).

⁸ Change or changes initiated by California Coastal Commission staff.

⁹ Change or changes initiated by UCSC.

10. Middle Terrace Redesignation, Part 2: Redesignation of 0.47 acres of land at the campus entrance from “Open Space” to “Research and Education Mixed Use” and creation of development Subarea #16 for the proposed development zone (see new CLRDP Figure 5.4, Development Subareas, in Section 3.4 below).¹⁰ This amendment is intended to enclose previously planned uses, i.e., parking and entrance kiosk, within a development zone designation. This redesignation would not result in a substantial change to the CLRDP land use plan or program or engender any new environmental impact because the uses allowed in this location would be limited to the same uses allowed by the 2004 CLRDP.
11. Middle Terrace Redesignation, Part 3: Redesignation of 0.63 acres of land southeast of the Middle Terrace from “Open Space” to “Resource Protection Buffer” (0.63 acres) and “Resource Protection” (<0.01 acres).¹¹ This amendment would protect a previously undelineated wetland (newly designated Wetland No. 10) and its buffer, which are located approximately 465 feet south of the De Anza drainage at the eastern perimeter of the campus.
12. Lower Terrace Redesignation, Part 1: Redesignation of approximately 0.90 acres of land in the Lower Terrace from “Research and Education Mixed Use” to “Resource Protection Buffer” (0.52 acres) and “Open Space” (0.38 acres).¹² This amendment would: a) eliminate the possibility of development east of the Seymour Marine Discovery Center, and b) exclude the earthen berm west of the seawater intake system from the development zone. This amendment would reduce the size of the Lower Terrace development zone described in the 2004 CLRDP FEIR by 37,600 square feet to a total remaining development area of 306,400 square feet.
13. Lower Terrace Redesignation, Part 2: Redesignation of approximately 0.27 acres of land north of the Lower Terrace from “Resource Protection Buffer” to “Resource

¹⁰ Change or changes initiated by California Coastal Commission staff.

¹¹ Change or changes initiated by California Coastal Commission staff.

¹² Change or changes initiated by California Coastal Commission staff.

Protection.”¹³ This amendment protects a slightly expanded Wetland W5, which was re-delineated in August 2006.

14. Lower Terrace Redesignation, Part 3: Redesignation of approximately 0.23 acres of land northeast of the Lower Terrace from “Open Space” to “Resource Protection buffer.” This amendment moves the buffer area around Wetland W5 eastward to correspond with the expanded Wetland W5.

15. Younger Lagoon Reserve Redesignation, Part 4: Redesignation of approximately 0.47 of land at the southern end of Younger Lagoon Reserve from “Resource Protection” to “Resource Protection Buffer.” This amendment acknowledges that the sandy beach of Younger Lagoon Reserve serves as an important buffer for Younger Lagoon but is not in itself an ESHA.

Table 1 summarizes minor amendments to CLRDP Figure 5.2, Land Use Diagram.

Table 1. Land Resource Acreage Involved in CLRDP Minor Amendments

		Redesignated To:					Total
		Research and Education	Resource Protection	Resource Protection Buffer	Open Space	Wildlife Corridor	
Redesignated From:	Acres						
	Research and Education	--	< 0.01	3.58	0.38	--	3.96
	Resource Protection	--	--	0.47	--	--	0.47
	Resource Protection Buffer	--	0.38	--	--	--	0.38
	Open Space	0.47	< 0.01	0.93	--	0.02	1.42
	Wildlife Corridor	--	--	--	--	--	0.00
	Total	0.47	0.38	4.97	0.38	0.02	6.22

Source: Coastplans, November 2006

¹³ Change or changes initiated by California Coastal Commission staff.

None of these minor amendments constitutes a substantial change in CLRDP principle or policy. The proposed amendments to CLRDP Figure 5.2, Land Use Diagram, would result in the redesignation of 6.22 acres of campus land. Changes to the three existing CLRDP *development zones* (i.e., Upper, Middle, and Lower Terrace), however, involve only 3.96 acres of redesignated land. While the redesignation of this land reduces developable area, the redesignated land would not be essential to achieving full implementation of the CLRDP program. The net effect of the proposed amendments would be to reduce the flexibility otherwise available in the land use plan to achieve the objectives of the CLRDP. The full building program is still achievable (albeit without the 80 units of support housing), but there are fewer choices as to where research and education uses can be located.

3.3.2 Other Proposed Minor Revisions

The project also includes minor revisions to the CLRDP that would address a range of technical issues as follows:

16. New CLRDP Figure 5.4: Addition of a new diagram to the CLRDP (see new CLRDP Figure 5.4, Development Subareas, in Section 3.4 below) establishing development subareas within the three development zones shown in the CLRDP Land Use Diagram (see CLRDP Figure 5.2, Land Use Diagram, in Section 3.4 below). CLRDP Figure 5.4 was created by UCSC in response to Coastal Commission staff's desire have a greater degree of specificity in the CLRDP regarding the specific locations of development planned within the areas designated "Research and Education Mixed Use." The figure sets forth 16 development subareas where building development is planned. These subareas are analogous to parcels of land, and for each development subarea, the CLRDP specifies allowable number of stories, maximum building heights, and the maximum allowable development footprint. Land within the development subareas, as well as land outside but still within the larger development zone (i.e., Upper, Middle, or Lower Terrace development zone) remains designated as "Research and Education Mixed Use," but uses outside of the development subareas are limited to transportation and ancillary uses (e.g., campus streets, parking, public trails, utility corridors, lighting, and signage).

UCSC first proposed adding Figure 5.4 to the CLRDP in January 2006 and since that time has proposed various minor revisions to the figure.¹⁴

17. Revised Location Restrictions: Revision of locational restrictions on researcher accommodations (see CLRDP Figure 5.3, Locational Restrictions, in Section 3.4 below) to allow the option of clustering 30 rooms of researcher housing in one area within the Middle Terrace development zone, in addition to the existing option of dispersing units throughout the Middle Terrace development zone.¹⁵

18. Public Access Improvements: Addition of a requirement for public access improvements to Overlook B at the end of McAllister Way, in conjunction with any new development in Lower Terrace Development Zone.¹⁶ Public access improvements would occur in two

¹⁴ The following is a description of the interim changes to the new CLRDP Figure 5.4, which was first provided to the California Coastal Commission in January 2006. First, within the Upper Terrace development zone, Subarea #1 would be reduced (from 140,000 square feet to 72,000 square feet) to fit within the reduced development zone. Second, within the Middle Terrace development zone, the size of Subarea #2 would be reduced (from 56,000 square feet to 30,000 square feet) to accommodate newly identified wetland (W9) and its buffer (Fig 5.4); also, the size of Subarea #3 would be increased (from 43,900 square feet to 64,000 square feet) through the elimination of a minor campus street that previously separated Subareas #2 and #3. Also within the Middle Terrace development zone, the size of Subarea #7 would be reduced (from 33,600 square feet to 22,200 square feet) and development limited within the subarea to a berm separating Middle Terrace Development Zone from YLR (Younger Lagoon Reserve); the size of development Subarea #6 would be increased (from 62,600 square feet to 74,000 square feet) by combining the previously proposed right-of-way for a minor campus street with development Subarea #6. Overall, the University reduced the amount of land contained within development subareas by 73,900 square feet.

Within this smaller universe of developable land, UCSC proposes to adjust the maximum allowable building coverage in certain subareas to retain the same amount of allowable building footprint as allowed in the prior version. The adjustments would ensure that UCSC has the flexibility needed to develop warehouse and laydown yard facilities either combined in one location in the Middle Terrace or split into two or more locations involving both the Middle and Upper Terrace if proposed reductions in the Upper Terrace development zone preclude the possibility of located the entire warehouse/laydown yard in the Upper Terrace. So, while the University proposes to reduce the Upper Terrace development zone by approximately half, they propose to reduce the amount of allowable development footprint in the Upper Terrace by only approximately 10 percent. Overall the amount of allowable building footprint remains the same as that presented to the California Coastal Commission in April 2006.

¹⁵ Change or changes initiated by UCSC

¹⁶ Change or changes initiated by California Coastal Commission staff

phases. Phase 1 would consist of converting an existing asphalt road to gravel path, storm drain improvements, landscape improvements, and improved signage. Phase 2 would consist of additional landscaping and signage.

19. Building Program Correction: Revision of the “Equipment Storage and Maintenance” element of the CLRDP building program to include “workshops” among allowable uses (CLRDP Section 5.2.1).¹⁴ This revision would ensure consistency between sections of the CLRDP.
20. SORACC Eliminated: Elimination of the Sea Otter Research and Conservation Center (SORACC) as a near-term project. UCSC no longer anticipates development of this specific project as described in CLRDP Chapter 7 (see revised CLRDP Figure 7.2, Illustrative Campus Buildout Site Plan, in Section 3.4 below). The 10,000 square feet of building space associated with this project would be included in the overall CLRDP building program for education and research development consistent with CLRDP guidelines and land uses. Any future development proposal would be subject to all the policies, implementation measures, and design guidelines of the CLRDP.¹⁷
21. New Pesticide Measures: Inclusion of additional pesticide/herbicide/rodenticide regulation for operations at the facility, to reduce risk of ground and surface water contamination and risk to raptors.¹⁸
22. New Seawater Entrainment Measures: Revision of CLRDP Implementation Measure 3.3.1 to require that any increase in the volume of seawater intake above 3,000 GPM be preceded by impingement and entrainment studies and implementation of all feasible measures to minimize impingement on and entrainment of ocean life.
23. New Measure to Permanently Protect Open Space and Natural Areas: New CLRDP Implementation Measure 3.14.1 requiring the University to diligently pursue the incorporation of open space and natural lands into the UC Natural Reserve System as a permanent addition to the Younger Lagoon UC Natural Reserve.

¹⁷ Change or changes initiated by UCSC.

¹⁸ Change or changes initiated by California Coastal Commission staff.

24. Revised Stormwater Concept: Revision of the Stormwater Concept Plan (Appendix B of the CLRDP) to: a) expand monitoring and maintenance requirements to ensure water quality, b) expand performance standards for surface water discharges, c) limit the height of earthen berms used to detain stormwater in vegetated drainage basins to 18 inches rather than five feet as previously provided, d) require the use of permeable paving materials, where feasible, in new streets, driveways, and parking lots, and e) revise the nomenclature used to describe stormwater Best Management Practices to more accurately describe their function.¹⁹

The proposed revisions to the Stormwater Concept Plan added minimum water quality standards for 16 variables, including:

- Color
- Tastes And Odor
- Floating Material
- Suspended Material
- Oil And Grease
- Biostimulatory Substances
- Sediment
- Turbidity
- Ph
- Dissolved Oxygen
- Toxicity
- Ammonia Nitrogen
- Pesticides
- Other Organics
- Radioactivity

The proposed revisions to the Stormwater Concept Plan also added 20 parameters for which water quality samples would be tested, including:

- Suspended Solids

¹⁹ Except for the revision in nomenclature for stormwater BMPs, California Coastal Commission staff initiated these changes.

- Total Suspended Solids
- Hardness
- Total Organic Carbon
- Total Phosphorous
- Ortho-Phosphate
- Inorganic Nitrogen
- Nitrate
- Nitrite,
- Ammonia Nitrogen
- Copper
- Lead
- Zinc
- Oil And Grease
- Tph
- Ph
- Conductivity
- Dissolved Oxygen
- Temperature
- Turbidity

Where the 2004 CLRDP required stormwater sampling during at least one storm event each winter at five specified locations, the proposed CLRDP revision would require three samples each year for the first three years for each treatment train constructed, and at least twice every year after that, at each discharge location. Implementation of the proposed revisions would have a positive effect on hydrology and water quality on the Marine Science Campus, in that more frequent water quality testing would be required and that the standards against which the samples would be judged would be more comprehensive. The revised project therefore is more protective of water quality than the project as previously proposed.

In addition, under the revised CLRDP, the University also proposes to revise the CLRDP Stormwater Concept Plan to limit the height of earthen berms used to detain stormwater in vegetated drainage basins to 18 inches in height, as compared with five feet in height under the project as originally proposed. Reducing berm height would reduce the alteration of natural landforms necessary for the construction of stormwater berms.

Groundwater recharge from the project would also be improved under the revised CLRDP by a new requirement that permeable paving materials be used, in preference to impervious surface wherever feasible, in the construction of new streets, driveways, and parking lots.

Finally, the University proposes to revise the nomenclature used to describe stormwater Best Management Practices to more accurately describe their function. Where the 2004 CLRDP referred to “wet ponds,” the revised Stormwater Concept Plan now refers to “vegetated stormwater basins.” The original nomenclature used is standard across the United States for drainage BMPs. Nonetheless, this nomenclature would be revised in the 2006 CLRDP to clarify that UCSC would not be constructing drainage basins on the Marine Science Campus that would retain water permanently, and thus might in effect become constructed wetlands. While such an effect might occur for systems built in climates such as Florida that have year round rainfall, in the semi-arid climate of Central California such basins generally are ephemeral water sources, holding water for only short periods of time during winter storm months. Furthermore, the soil types and hydrologic conditions of the Marine Science Campus (e.g., Elkhorn Sandy Loam and Watsonville Loam) are not conducive to retaining water for long periods of time. During periods of unusually heavy storm activity, stormwater basins might hold standing water for as long as 10 days, but since most storm events in the Santa Cruz area occur from October through April, it is expected that basins will be dry by May. The revised terminology clarifies this issue.

3.3.3 Summary

The effect of all the proposed CLRDP amendments described above is to reduce the area of the Marine Science Campus development footprint. Eliminating 80 units of planned support housing reduces the overall building program but keeps the more critical research and education components of the CLRDP building program intact. With the elimination of the 80 support housing units, the proposed CLRDP building program would be wholly achievable within the new development boundaries to be established by the proposed CLRDP amendments. Reduction of the housing component is also responsive to public comment. Should the proposed changes be approved, UCSC would reduce the CLRDP Building program by 81,875 square feet, from a

total of 409,100 square feet to 327,225 square feet.²⁰ The reduced plan also provides greater protection for California red-legged frog and YLR, recognizes previously undelineated wetlands, and preserves more open space on the site.

The potential environmental effects of these proposed amendments and revisions are discussed in the impact analysis section below. Consistent with the Delegation of Authority included in the Regents Item for Approval of the CLRDP, September 2004,²¹ the proposed CLRDP revisions and amendments described above will be presented to the President of the University of California or designee for consideration and action.

3.4 Selected Revised Figures from the CLRDP

This section contains five figures that illustrate key revisions proposed for the CLRDP:

1. Building Program (CLRDP Figure 5.1),
2. Land Use Diagram (CLRDP Figure 5.2),
3. Locational Restrictions for Building Program (CLRDP Figure 5.3),
4. Development Subareas Diagram (CLRDP Figure 5.4), and
5. Illustrative Campus Buildout Site Plan (CLRDP Figure 7.2).

²⁰ This includes 125 square feet of new building program for an entryway kiosk, which was allowed in the original plan but is now specifically called out in the building program (considered a ministerial-type revision).

²¹ UC Regents Item, Certification of EIR and Approval of CLRDP, UCSC (September 2004), Action Item (6): “Authorize the President or designee to modify the CLRDP, if required, in response to comments received from the California Coastal Commission, provided that any substantial changes in principles or policies of the CLRDP would be brought to The Regents for approval.” <http://www.universityofcalifornia.edu/regents/regmeet/sep04/108.pdf>

Proposed Revisions

Fig. 5.1 Building Program (New Construction Only)

<u>Program Element</u>	<u>Quantity</u>	<u>Units</u>
NEW BUILDINGS		
<u>Marine Research and Education Facilities</u>		
Marine Research and Education Uses	254,500	sq ft (gfa)
<u>Support Facilities</u>		
Support Facilities	19,000	sq ft (gfa)
<u>Temporary Accommodations</u>		
80 Apartments and/or Townhouses	82,000	sq ft (gfa)
10 Visitor/Overnight Accommodations	2,500	sq ft (gfa)
30 Researcher Housing Rooms	12,000	sq ft (gfa)
2 Caretaker Replacement Housing Units	1,600	sq ft (gfa)
<u>Campus Entrance Facilities</u>		
Campus Entrance Kiosk	125	sq ft (gfa)
<u>Equipment Storage and Maintenance</u>		
Centralized Warehouse	37,500	sq ft (gfa)
SUBTOTAL NEW BUILDINGS	409,100 327,225	sq ft (gfa)
OUTDOOR DEVELOPMENT		
<u>Outdoor Research</u>		
Outdoor Research Area	70,000	sq ft
<u>Equipment Storage and Maintenance</u>		
Open Laydown Yards	70,000	sq ft
<u>Seawater System</u>		
4,000 GPM Seawater System Expansion	12,000	sq ft
SUBTOTAL OUTDOOR DEVELOPMENT	152,000	sq ft

Note: *gfa* means gross floor area

Proposed Land Use Amendments

Fig. 5.2 Land Use Diagram

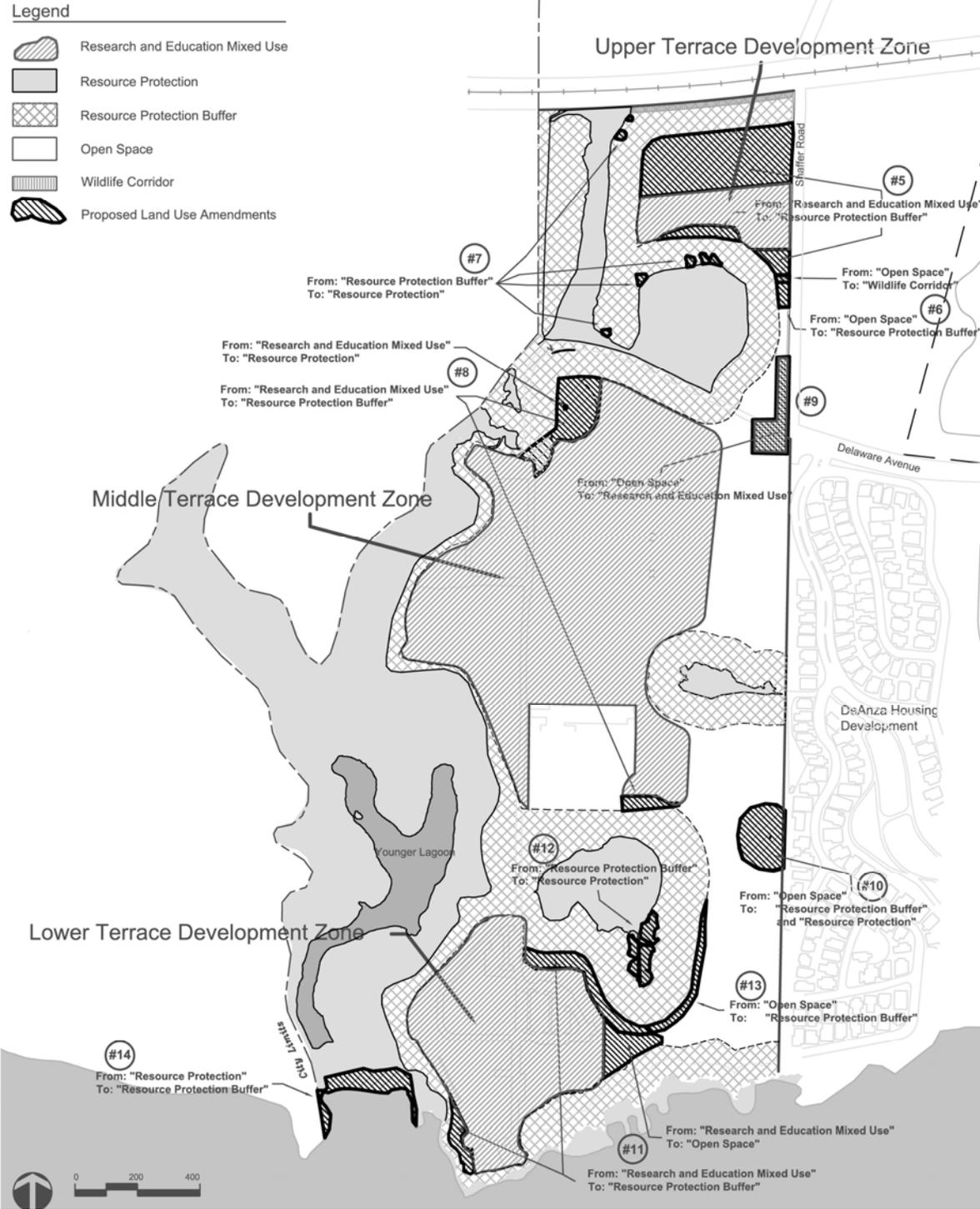


Fig. 5.3 Locational Restrictions for Building Program

<i>Program Element</i>	<i>Lower Terrace Development Zone</i>	<i>Middle Terrace Development Zone</i>	<i>Upper Terrace Development Zone</i>	<i>Campus Entrance Development Zone</i>
Marine Research and Education	-----No locational restrictions-----			Not allowed
Outdoor Research Area	Limited to existing facilities, plus a combined total maximum of 10,000 square feet of additional outdoor research area	Limited to existing facilities, plus a combined total maximum of 60,000 square feet of additional outdoor research area in the Middle and Upper Terrace development zones together		Not allowed
Support Facilities	Limited to existing facilities	These uses are not allowed in Subareas No. 6, 7, or 10 (see Figure 5.4)		Not allowed
Visitor Accommodations	Not allowed	The 10 visitor/overnight accommodations shall be located only in Subarea No. 9 (see Figure 5.4); the 30 rooms of researcher housing shall not be located in Subareas No. 2 or 7	Not allowed	Not allowed
Caretaker Accommodations	No restrictions, except not allowed in Subareas No. 2, 6, 7, 10 or 14 (see Figure 5.4)			Not allowed
Equipment Storage and Maintenance Facilities	Limited to existing facilities, plus new facilities ancillary to allowed uses	These uses are not allowed Subareas No. 4, 5, 6, 7, 9, or 10 (see Figure 5.4)		Not allowed
Public Access and Rec. Fac.	-----No locational restrictions-----			
Seawater System	-----No locational restrictions-----			
Parking Fac.	-----No locational restrictions-----			
Campus Entrance Fac.	-----Not Allowed-----			No locations restrictions

Note: Fig. 5.3 does not supersede other CLRDP provisions that provide additional detail on where certain types of development and uses are allowed.

Fig 5.4 Development Subareas

Legend

-  Development Subarea
-  Development Zone Boundary

(1) Subarea No.	(2) Subarea Size	Max. No. of Stories	Max. Height	(3) Max. Bldg. Footprint	(4) Max. Building Coverage
1	72,000	(4) 1	(4) 30	37,500	52%
2	30,000	1	(5) 18	9,000	30%
3	64,000	2	(6) 30	38,400	60%
4	104,900	2	(6) 30	62,940	60%
5	24,400	2	(6) 30	14,640	60%
6	74,000	1	(7) 24	29,600	40%
7	22,200	--	(8) 10	--	--
8	116,300	2	(4) 30	42,240	36%
9	29,250	2	24	11,700	40%
10	76,900	2	24	30,760	40%
11	61,100	2	(9) 24	24,440	40%
12	29,570	2	24	11,828	40%
13	32,100	1	15	12,840	40%
14	17,200	--	(10) 6	--	--
15	74,150	1	24	29,660	40%
16	13,400	--	12	(11) 125	--
	841,470			355,673	

Notes:

(1) Building development outside of subareas is prohibited. Development outside of subareas shall be limited to at-grade development (e.g., streets, parking areas, etc.) where any associated above-grade elements (e.g., fencing, light standards, etc.) shall not exceed the scale, including the heights, established for such elements in the CLRDP.

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

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

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

(5) Above-grade development shall be concentrated to the south as much as possible.

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

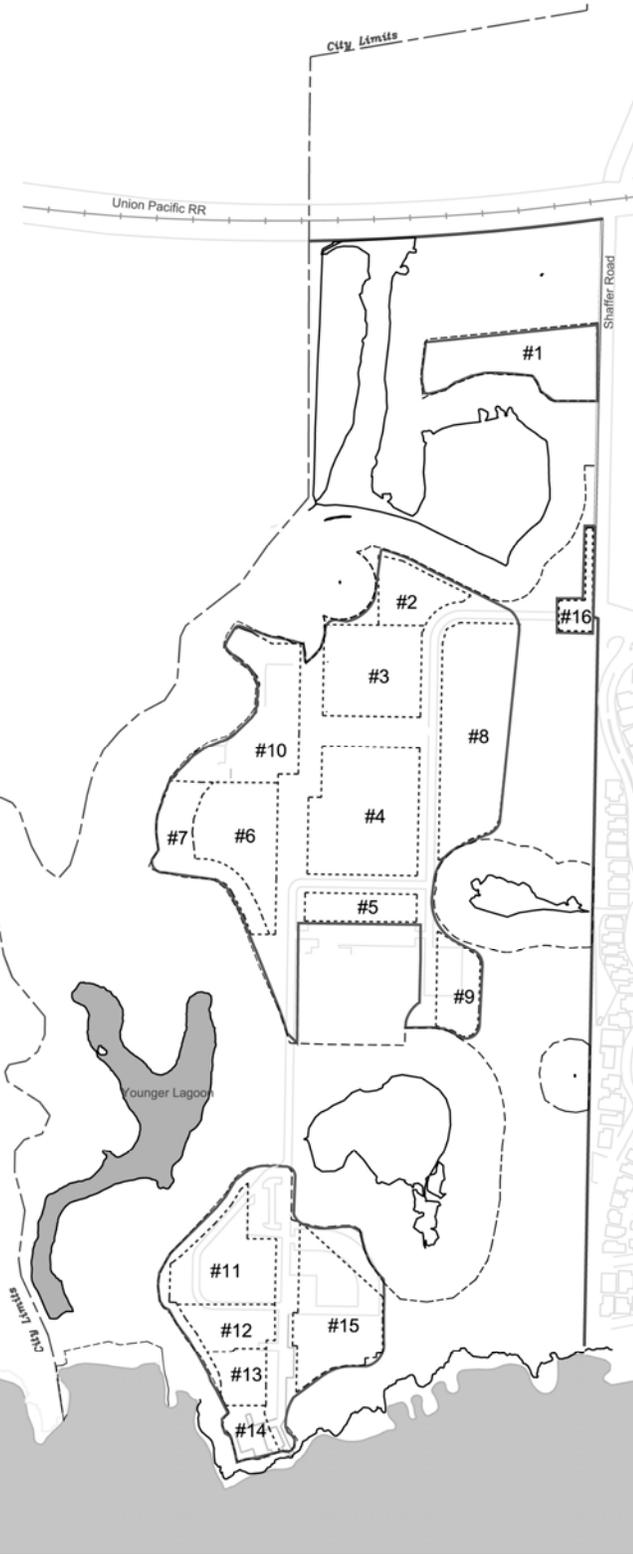
(7) In no case shall windows or decks in new buildings be visible from Younger Lagoon Reserve.

(8) The first 50 feet extending east from the development zone boundary shall be used for berm, fencing, and/or transitional planting only. The remainder of the area may be used for outdoor marine research activities only, including marine research pools, other organized marine research facilities, and structures ancillary to these uses (e.g., storage sheds, pump houses, etc.)

(9) Ocean Health II is allowed to be 36 feet in height.

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

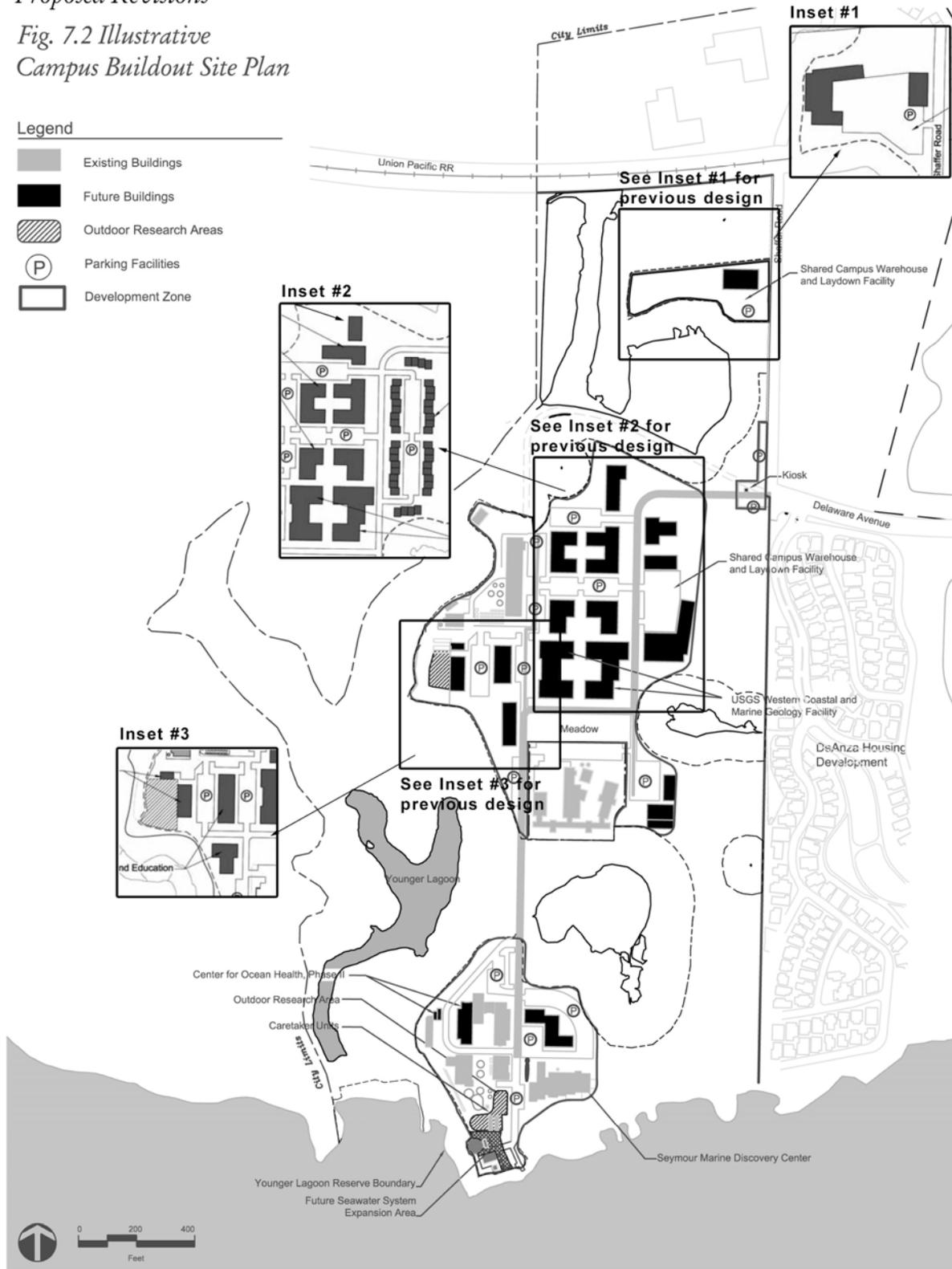
(11) Parking and kiosk only are allowed in this subarea.



Proposed Revisions
Fig. 7.2 Illustrative
Campus Buildout Site Plan

Legend

-  Existing Buildings
-  Future Buildings
-  Outdoor Research Areas
-  Parking Facilities
-  Development Zone



4. REEVALUATION OF ENVIRONMENTAL EFFECTS

This section provides an analysis for each category of environmental impact identified in the 2004 CLRDP FEIR and, where relevant includes:

1. A summary of the impacts identified in the 2004 CLRDP FEIR, adopted mitigation measures, and the significance of each impact after mitigation;
2. An evaluation of proposed CLRDP amendments and revisions based on Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163. As detailed below, the analysis concludes that the none of the proposed changes and revisions would result in new significant effects or a substantial increase in the severity of previously identified significant effects; and
3. An evaluation of changed circumstances and new information under the standards of CEQA Guidelines 15162(a)(3). This includes information of substantial importance which was not previously known and accessible, which may affect the analysis of certain aspects of the CLRDP (whether or not the aspect has changed as a result of the proposed CLRDP amendments and revisions), and which shows any of the following: (i) a new significant environmental effect, (ii) a substantial increase in the severity of significant effects identified in the 2004 CLRDP FEIR, (iii) feasible new mitigation measures or alternatives that would substantially reduce a significant effect, or (iv) mitigation measures or alternatives previously found to be infeasible would be feasible and would substantially reduce a significant effect.

A summary table is provided for each environmental topic that indicates the issue areas that are studied for each proposed revision.

4.1 Aesthetics

4.1.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified no significant aesthetic impacts associated with the implementation of the CLRDP and/or its near-term projects.

4.1.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revisions Nos. 2 (New Middle Terrace/ YLR Berm) and 3 (Allow Equipment Storage and Maintenance Facilities on Middle Terrace) require study to determine if they have the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of aesthetics, as indicated below in Table 2.

Table 2. Need for Further Study of Aesthetic Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Scenic Vistas	–	X	–	–
Scenic Resources	–	X	–	–
Visual Character	–	X	X	–
Light and Glare	–	–	X	X

Note: “–” indicates no study necessary; “X” indicates a need for study

4.1.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

The elimination of program for 80 units of housing reduces the potential for impacts in the immediate vicinity with respect to increased light and glare and other visual effects. However, these in any case were found to be less than significant in the CLRDP FEIR.

4.1.2.2 New Middle Terrace/YLR Berm (CLRDP Revision No. 2)

The addition of a new CLRDP Implementation Measure 3.5.8 requiring the University to construct, in conjunction with planned building development west of McAllister Way, an earthen berm to separate development in the Middle Terrace development zone from YLR, requires study to determine if impacts related to scenic vistas, scenic resources, and visual character trigger the need to prepare a Supplemental or Subsequent EIR. The proposed berm would be designed similar to an existing berm that separates the Lower Terrace development from YLR, which was constructed to screen views of Marine Science Campus development from the YLR. The existing Lower Terrace berm is approximately 50 feet wide and 10 feet high with 2:1

sloping sides.²² The proposed berm would be of similar dimensions. The existing grade at the proposed berm location is approximately 42 to 44 feet above sea level (ASL). The elevation of the top of the new berm, therefore, would be 52 to 54 feet ASL. The existing grade at Highway 1 is approximately 100 feet ASL. In the view from Highway 1, the southernmost edge of the Marine Science Campus forms the visual edge with the ocean beyond. The new berm along the western edge of the Middle Terrace would not protrude into the view of the ocean from Highway 1 because its elevation would be substantially lower than that of the viewpoint (see CLRDP Figure 3.16).

The berm also would be visible from the beach and parking lot areas at Wilder Ranch State Park. In this instance, existing buildings on the Marine Science Campus, all of which are considerably higher than the proposed 10-foot-high berm, form the most prominent part of the view. The berm would not be a visually prominent feature. The berm would not be visually prominent in more distant views, and the visual impact of the berm therefore would be less than significant.

With regard to visual character, the proposed berm would displace low-lying vegetation, but in accordance with CLRDP Appendix A, Resource Management Plan, the berm would be vegetated with native grasses and low-growing herbaceous species and would not, therefore, substantially alter the visual character of the area. The berm would also alter the topography of the area adjacent to YLR in such a way as to limit views into the protected habitat area. While YLR might be considered a scenic resource at the site, the screening of YLR is considered an indirect biological benefit in that it will serve to limit visual and auditory intrusions to YLR as new development occurs in its vicinity. Other views of the YLR will continue to be available from the Marine Science campus, allowing it to continue as a scenic resource for the campus.

4.1.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone requires study to determine if impacts related to visual character and light and glare generated by development in the Middle Terrace trigger the need to prepare a Supplemental or Subsequent EIR. The preliminary building study for this proposed facility (see CLRDP Figure 7.9) anticipates a fenced corporation yard as part of this

²² Personal communication with Steve Davenport on June 21, 2006.

facility, parts of which would be illuminated at night for security. With the proposed revision, part or the entirety of this fenced corporation yard could be located in the easternmost part of the Middle Terrace west of the De Anza Mobile Home Park, where there would be a potential for effects to the adjacent housing from increased night light and daytime glare, and changes in the visual character of the site.

As noted in the 2004 FEIR, the CLRDP contains policies and implementation measures that require the height and scale of the proposed development to be compatible with the height and scale existing development at and adjacent to the site and require the final design of future buildings to reflect the coastal architectural style. CLRDP policies also prescribe development controls designed to ensure that activity and direct light does not significantly affect areas outside of development zones (see CLRDP Implementation Measures 4.3.2, 4.3.3, and 4.3.5). Finally, CLRDP Figure 5.2, Land Use Diagram, establishes open space areas that would separate development on the Marine Science Campus from existing neighboring uses and ensure a graduated visual link to adjacent rural areas. Because the envisioned equipment storage and maintenance facility would be sited and designed consistent with these policies and implementation measures, their construction in the Middle Terrace development zone would not result in new significant effects or a substantial increase in the severity of previously identified significant effects. At the time that such a facility is proposed as a specific project for this area, the project would be subject to project-level environmental review. Any project to be located at this site would be subject to design review to ensure that it meets the design and lighting criteria included in the CLRDP. With the inclusion of these measures, the aesthetic impact would be less than significant.

4.1.2.4 New Emergency Access

UCSC proposes a new CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks. While the University would collaborate with the City of Santa Cruz on this project, it would be up to the City of Santa Cruz to actually undertake and construct the project. The emergency access has not been designed, and it is unknown if such a design would include night lighting. The University cannot require the City to implement provisions of the CLRDP. However, to the degree that the University collaborates on the project design, CLRDP implementation measures would have bearing, and CLRDP Implementation Measures 4.3.2, 4.3.3, and 4.3.5 each address some aspect of lighting design and the impact of lighting on habitat areas that would serve to

reduce the impact of night lighting at the emergency access. At the time that the City of Santa Cruz brings such a project forward, it would be subject to project-level environmental review.

4.1.2.5 Conclusions

In conclusion, none of the proposed CLRDP revisions has the potential to result in new significant aesthetic effects or a substantial increase in the severity of previously identified significant effects related to aesthetics, and therefore none of the revisions requires further study. Furthermore, there are no changed circumstances or new information within the meaning of CEQA Guidelines Section 15162 (a)(2) and (3) that would lead to new significant aesthetic effects or a substantial increase in the severity of significant effects related to aesthetics previously identified in the 2004 CLRDP FEIR.

4.2 Agricultural Resources

4.2.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified one less-than-significant agricultural resource impact associated with the implementation of the CLRDP and/or its near-term projects. This impact is listed in Table 3 below.

Table 3. 2004 FEIR Agricultural Resources Impacts

2004 CLRDP FEIR Impacts	Applicable CLRDP FEIR Mitigation Measures	CLRDP FEIR Significance Conclusion (With Mitigation)	Do proposed revisions result in new significant effects or a substantial increase in the severity of previously identified significant effects?
Impact 4.2-1: With the inclusion of CLRDP policies and implementation measures, development under the CLRDP would not result in substantial pressures that could lead to the conversion of adjacent Farmland to other uses. The impact is therefore considered less than significant.	4.2-1	Less than significant	No

Source: 2004 CLRDP FEIR

4.2.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revision No. 5 (Weeklong Accommodations within 500-Foot Agricultural Setback) requires study to determine if it has the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of agricultural resources, as indicated below in Table 4.

Table 4. Need for Further Study of Agricultural Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study				
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access	#5 Weeklong Accommodations w/in 500' Ag Setback
Convert prime farmland	—	—	—	—	—
Conflict with existing zoning	—	—	—	—	—
Other changes that could result in conversion	—	—	—	—	X

Note: “—” indicates no study necessary; “X” indicates a need for study

4.2.2.1 Weeklong Accommodations Within 500’ Ag Setback (CLRDP Revision No. 5)

The proposed revision of CLRDP Implementation Measure 2.2.1 to allow short-term accommodations (i.e., one week or less) within the 500-foot agricultural setback requires study to determine if it triggers the need to prepare a Supplemental or Subsequent EIR. The 2004 CLRDP prohibited all residential uses within 500 feet of neighboring agricultural property to reduce the likelihood that residential users on the Marine Science Campus would complain about the air quality and noise issues related to nearby agricultural operations and thereby place pressure on agricultural producers to undertake changes that could ultimately lead to the discontinuation of the agricultural use. The proposed revision would allow short-term accommodations within 300 feet of established crop lines but would limit the stay in these rooms to one week or less. By limiting the length of stay in these accommodations, the proposed revision would largely eliminate the potential for complaints about agricultural operations from persons using the short-term accommodations. Such indirect impacts on agricultural operations would be approximately the same as generated by the researchers, staff, and students who would otherwise occupy areas up to the 300-foot setback from established crop lines. Therefore, the

proposed revision would not result in new significant agricultural resource effects or a substantial increase in the severity of previously identified significant effects related to agricultural resources.

None of the other proposed CLRDP revisions require study to determine if they would result in new significant agricultural resource effects or a substantial increase in the severity of previously identified significant effects related to agricultural resources, because they do not increase the new population at the site, use agricultural land, or increase the potential for indirect impacts to agricultural land through the placement of incompatible development. Therefore none of the revisions requires further study. Furthermore, there are no changed circumstances or new information that would lead to new significant agricultural resource effects or a substantial increase in the severity of significant effects related to agricultural resources previously identified in the 2004 CLRDP FEIR.

4.3 Air Quality

4.3.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified one temporary significant air quality impact associated with the implementation of the CLRDP and/or its near-term projects. This impact is summarized in Table 5 below.

Table 5. 2004 FEIR Air Quality Impacts

2004 CLRDP FEIR Impacts	Applicable CLRDP FEIR Mitigation Measures	CLRDP FEIR Significance Conclusion (With Mitigation)	Do proposed revisions result in new significant effects or a substantial increase in the severity of previously identified significant effects?
Impact 4.3-1: Construction activities associated with development under the CLRDP could generate substantial amounts of fugitive dust, which would result in potential health and nuisance impacts in the immediate project vicinity. This would be a temporary significant impact.	4.3-1	Less than significant	No

Source: 2004 CLRDP FEIR

4.3.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revisions Nos. 1 (Eliminate 80 Units of Housing), 2 (New Middle Terrace/YLR Berm), and 5 (Weeklong Accommodations within 500-Foot Agricultural Setback) require study to determine if they have the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects related to air quality, and to determine whether these factors are affected by new information of substantial importance, as shown in Table 6.

Table 6. Need for Further Study of Air Quality Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study				
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access	#5 Weeklong Accommodations within 500' Agricultural Setback
Conflict with air quality plan	X	X	—	—	—
Violate air quality standards	—	X	—	—	—
Result in cumulatively considerable net increase in pollutants	X	X	—	—	—
Expose sensitive receptors to pollutants	—	—	—	—	X
Create objectionable odors	—	—	—	—	—
Toxic air contaminants	—	—	—	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

4.3.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

As discussed in the Section 4.15 (Transportation/Traffic), the University’s proposal to eliminate the program for 80 units of housing and reduce planned building construction by 25 percent would reduce both the construction and operational traffic generated by the Marine Science Campus and thus would reduce construction- and traffic-related air emissions (for a discussion of traffic impacts see Section 4.15 below). Operational impacts associated with generator use and heating fuels would be reduced under the reduced building program. The 2004 CLRDP FEIR

found that each of these impacts was less than significant, and this conclusion would not change with the proposed revisions.

The modified building program would reduce construction-related air emissions in that the overall amount of construction and associated soil disturbance and construction vehicle traffic would be reduced. The 2004 CLRDP FEIR found that temporary impacts associated with individual construction projects were significant. The proposed CLRDP revisions would reduce the amount of development space and therefore would reduce construction impacts.

With regard to cumulative air quality impacts, AMBAG reviewed the original CLRDP in 2003 and found that the CLRDP program was consistent with the *2000 Air Quality Management Plan for the Monterey Bay*. The CLRDP, therefore, was considered to have a less-than-significant cumulative impact on regional air quality. Since that 2003 consistency determination, however, the Monterey Bay Unified Air Pollution Control District published the *2004 Air Quality Management Plan* based on the new *2004 AMBAG Population, Housing Unit & Employment Forecasts*. In response to these changed circumstances, the University provided AMBAG with its proposed revised project description for the CLRDP. AMBAG found the revised CLRDP consistent with the 2004 Air Quality Management Plan (AMBAG, October 2006). Other aspects of the cumulative analysis for air quality contained in the 2004 CLRDP FEIR are unaffected by the proposed revisions to the CLRDP.

4.3.2.2 New Middle Terrace/YLR Berm (CLRDP Revision No. 2)

The proposed addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR requires study to determine if the revision would result in a construction-related air quality impact. The construction of a berm, which could involve the grading and placement of as much as 6,880 cubic yards of soil (50' x 10' x 600', with 2:1 sloping sides), could generate substantial amounts of fugitive dust. Construction-related air quality impacts such as this are described in the 2004 CLRDP FEIR (see Impact 4.3-1), and Project-Specific Mitigation Measure 4.3-1 requires implementation of a dust abatement program by construction contractors. The grading that could result from the proposed revision is of the same nature and general magnitude as described 2004 CLRDP FEIR, as the soil to be used in the berm would come solely from on-site grading. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.3.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone requires study to determine if the revision would create new air quality impacts or to substantially increase the severity of previously identified air quality impacts. Construction-related air quality impacts associated with locating this use in the Middle Terrace, where previously such use was allowed only in the Upper Terrace development zone, are the same as described in the 2004 CLRDP FEIR (see Impact 4.3-1), and Project-Specific Mitigation Measure 4.3-1 requires implementation of a dust abatement program by construction contractors. With regard to operational impacts, the 2004 CLRDP FEIR noted that as the focal point for delivery trucks, the shared warehouse and laydown yard would experience an increase in diesel emissions. It also noted that the operation of gas- or diesel-powered loading and unloading equipment could generate additional emissions. Nonetheless, the 2004 CLRDP FEIR found that emissions from the proposed use would not exceed the MBUAPCD CEQA significance thresholds for criteria air pollutants or the standards set forth in the “Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values for TACS.” The 2004 CLRDP FEIR concluded that the operational air-quality impacts associated with the project were less than significant. The proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.3.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks would involve construction, and as such requires study to determine if the revision would temporarily affect air quality. While the University would collaborate with the City of Santa Cruz on this project, it would be up to the City of Santa Cruz to actually undertake and construct the project. The University cannot require the City to implement provisions of the CLRDP. However, to the degree that the University collaborates on the project construction-related air quality impacts such as this are described in the 2004 CLRDP FEIR (see Impact 4.3-1), and Project-Specific Mitigation Measure 4.3-1 requires implementation of a dust abatement program by construction contractors. The grading that could result from the proposed revision is of the same nature and general magnitude as described in the 2004 CLRDP FEIR. The proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.3.2.5 Weeklong Accommodations Within 500' Ag Setback (CLRDP Revision No. 5)

The proposed revision of CLRDP Implementation Measure 2.2.1 to allow short-term accommodations (i.e., one week or less) within the 500-foot agricultural setback requires study to determine if it triggers the need to prepare a Supplemental or Subsequent EIR. The 2004 CLRDP prohibited all residential uses within 500 feet of neighboring agricultural property to reduce the possibility that residential users on the Marine Science Campus would be exposed to pollutants associated with the agricultural use. The proposed revision would allow short-term accommodations within 300 feet of established crop lines but would limit the stay in these rooms to one week or less. By limiting the length of stay in these accommodations, the proposed revision would substantially limit any increase in exposure to agricultural chemicals by persons using the short-term accommodations. Such exposure would be approximately the same as experienced by the researchers, staff, and students who would otherwise occupy areas up to the 300-foot setback from established crop lines. Therefore, the proposed revision would not result in new significant air quality effects or a substantial increase in the severity of previously identified significant effects related to air quality.

4.3.2.6 Conclusions

In conclusion, none of the proposed CLRDP revisions has the potential to result in new significant air quality effects or a substantial increase in the severity of previously identified significant effects related to air quality, and therefore none of the revisions require further study. Furthermore, there are no changed circumstances or new information that would lead to new significant air quality effects or a substantial increase in the severity of significant effects related to air quality previously identified in the 2004 CLRDP FEIR.

4.4 Biological Resources

4.4.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified three less-than-significant biological resource impacts associated with the implementation of the CLRDP and/or its near-term projects. These impacts are summarized in Table 7 below.

Table 7. 2004 FEIR Biological Resources Impacts

2004 CLRDP FEIR Impacts	Applicable CLRDP FEIR Mitigation Measures	CLRDP FEIR Significance Conclusion (With Mitigation)	Do proposed revisions result in new significant effects or a substantial increase in the severity of previously identified significant effects?
Impact 4.4-1: Implementation of the CLRDP would not affect California red-legged frog (CLRF) breeding habitat and would avoid impacts on dispersing CLRF by setting development back from off-site areas where the species has previously been observed. The impact on the species would be considered less than significant.	4.4-1	Less than significant	No
Impact 4.4-2: Development on, and restoration of, annual grassland and coastal scrub on the middle and upper terrace development zones could cause a loss of nesting raptors that may be present, primarily through the direct effects of ground disturbance and the indirect effects of increased human activity and noise. Because raptor nesting records are limited for the site, and due to abundant alternate and protected habitat in the region, the probability of this impact is low and the degree of impact is considered less than significant.	4.4-2	Less than significant	No
Impact 4.4-3: Construction of expanded seawater system facilities could cause a direct loss of nesting black swift not now known to nest, but with the potential to do so in any given year, an adverse but less than significant impact.	4.4-3	Less than significant	No

Source: 2004 CLRDP FEIR

4.4.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revisions Nos. 2 (New Middle Terrace/YLR Berm), 3 (Allow Equipment Storage and Maintenance Facilities on Middle Terrace), and 4 (New Emergency Access) require study to determine if they have the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects related to biological resources, as shown in Table 8 below.

Table 8. Need for Further Study of Biological Resource Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Effect on special status species	–	X	X	X
Effect on riparian or other sensitive natural communities	–	X	X	–
Effect on wetlands	–	X	X	–
Effect on wildlife movement	–	X	X	X
Conflict with local policies	–	–	–	–
Conflict with adopted HCP	–	–	–	–

Note: “–” indicates no study necessary; “X” indicates a need for study

4.4.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

The University’s proposal to modify the CLRDP Building Program to eliminate the program for 80 units of housing and reduce planned building construction by 25 percent would have no effect on biological resources on the Marine Science Campus because the area within which development may occur would not be altered by this proposed revision. Other proposed revisions do, however, reduce developable area, and these are discussed below. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.4.2.2 New Middle Terrace/YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR requires study to determine if the revision would affect drainage patterns along the bluffs of YLR and therefore affect wetland, riparian, and/or other sensitive natural communities within the reserve. CLRDP Implementation Measure 7.1.3 addresses this issue by requiring the University to develop and manage drainage systems on the Marine Science Campus that maintain pre-development drainage patterns and peak flow rates to the degree feasible. In addition, CLRDP Implementation Measure Implementation Measure 7.1.6 requires the University to 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.

The construction of an earthen berm in the vicinity of YLR also may temporarily disrupt wildlife in YLR during construction. CLRDP Implementation Measure 3.4.3 prohibits noise intrusion into YLR in excess of 60 dBA CNEL, and CLRDP Implementation Measure 3.5.6 requires consultation with the YLR Manager prior to development. The site at which the berm would be constructed was previously envisioned for outdoor research activities, which could have involved the construction of outdoor marine mammal pools and related equipment and storage. The impact of such construction activities on biological resources was analyzed in the 2004 CLRDP FEIR (see Impact 4.4-2), and Project-Specific Mitigation Measure 4.4-2 requires measures to avoid disturbance of nesting raptors.

The construction of an earthen berm adjacent to YLR may also allow invasive plant species to establish on the bare soil of the new berm, and if large communities of invasive plant species were allowed to propagate, seed could in turn be transported into YLR thereby establishing the invasive plants in YLR. The proposed revision precludes the importation of soil to construct the berm, so there is no potential for foreign seed stock to be imported to the site. Also, the proposed revision includes landscaping measures design to ensure native species are established on the bare soil and invasive non-native species are discouraged.

As to the effect on biological resources of locating a berm in the general vicinity specified (see the new CLRDP Figure 5.4), CLRDP Figure 3.11, Biotic Resources, indicates the presence of no wetland or Environmentally Sensitive Habitat Area (ESHA) in this area. In the long term, the new berm would have a positive impact on biological resources in that it would improve visual and noise separation between the Middle Terrace development zone and YLR.

The actual construction of a berm would require a project-level CEQA review and filing of a Notice of Impending Development at the time a specific project is proposed, per CLRDP Chapter 8. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.4.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone has no potential to affect biological resources on the Marine Science Campus. If the University chooses to locate all or part of the equipment storage and maintenance facilities in the Middle Terrace development zone, where previously such use was allowed only in the Upper Terrace development zone, it would be in areas already

designated and evaluated for development in the 2004 CLRDP FEIR. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.4.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks would involve construction in an area approximately 600 feet from where California red-legged frog (CRLF) has been found. While the University would collaborate with the City of Santa Cruz on this project, it would be up to the City of Santa Cruz to actually undertake and construct the project. The University cannot require the City to implement provisions of the CLRDP. However, to the degree that the University collaborates on the project CLRDP Implementation Measures 3.2.11 and 3.2.12 require protocol surveys for CRLF and consultation with the U.S. Fish and Wildlife Service, respectively, prior to construction. Also CLRDP Implementation Measure 3.2.3 requires the University to provide safe passage across Shaffer Road for wildlife. The impact of construction activities on CRLF in the Upper Terrace, which is adjacent to the proposed crossing location, is described in the 2004 CLRDP FEIR (see Impact 4.1-1), and Project-Specific Mitigation Measure 4.4-1 requires pre-construction surveys and biological monitoring of construction activities. Construction related to the railroad crossing would be of the same nature and general magnitude as described in the 2004 CLRDP FEIR. The 2004 CLRDP FEIR found no significant impacts caused by the proposed improvement of Shaffer Road. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.4.2.5 New Information

Since adoption of the 2004 CLRDP and certification of the 2004 CLRDP FEIR, the Huffman Broadway Group has revised its wetland delineation for the Marine Science Campus (see *Investigation of the Presence and Geographic Extent of Wetlands on Terrace Point and Younger Lagoon Reserve University of California, Santa Cruz Santa Cruz, California, Amended July 2006*, Huffman Broadway Group, 2006). As a result of this work, two new wetlands have been identified in the 2006 CLRDP (designated Wetland W9 and Wetland W10 in CLRDP Figures 3.10 and 3.11) and the geographical extent of existing wetlands has been expanded slightly. The updated report also addressed issues related to delineation methodology and consistency with Coastal Act and CCC Regulations. In response to this new information, UCSC increased the amount of land designated "Resource Protection" by 0.29 acres increased the amount of land

designated “Resource Protection Buffer” by 4.13 acres. This new information does not change the conclusions of the 2004 CLRDP FEIR.

4.4.2.6 Conclusions

In conclusion, none of the proposed CLRDP revisions has the potential to result in new significant biological resource effects or a substantial increase in the severity of previously identified significant effects related to biological resources, and therefore none of the revisions requires further study. Furthermore, while there is new information related to biological resources, the proposed changes to the CLRDP Land Use Diagram, the resource protection policies of the CLRDP, and the mitigation measures of the 2004 CLRDP FEIR ensure that the changed circumstances/new information would not lead to new significant biological resource effects or a substantial increase in the severity of significant effects related to biological resources previously identified in the 2004 CLRDP FEIR.

4.5 Cultural Resources

4.5.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified one potentially significant cultural resource impact associated with the implementation of the CLRDP and/or its near-term projects. This impact is summarized in Table 9 below.

Table 9. 2004 FEIR Cultural Resources Impacts

2004 CLRDP FEIR Impacts	Applicable CLRDP FEIR Mitigation Measures	CLRDP FEIR Significance Conclusion (With Mitigation)	Do proposed revisions result in new significant effects or a substantial increase in the severity of previously identified significant effects?
Impact 4.5-1: Construction activities associated with development in the upper terrace, middle terrace, and lower terrace development areas could disturb previously undiscovered human burial sites of Native American groups, a potentially significant impact.	4.5-1	Less than significant	No

Source: 2004 CLRDP FEIR

4.5.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revision No. 2 (New Middle Terrace/ YLR Berm) requires study to determine if it has the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of cultural resources, as indicated below in Table 10.

Table 10. Need for Further Study of Cultural Resources Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Change in significant cultural resource	—	X	—	—
Change in significant archaeological resource	—	X	—	—
Destroy paleontological resource	—	X	—	—
Disturb human remains	—	X	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

4.5.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

The University’s proposal to modify the CLRDP Building Program to eliminate the program for 80 units of housing and reduce planned building construction by 25 percent would have no effect on cultural resources because the area within which development may occur on the Marine Science Campus would not be altered by this proposed revision. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.5.2.2 New Middle Terrace/YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR requires study to determine if the revision would affect cultural resources on the Marine Science Campus because presently undeveloped area would be disturbed with the construction of a berm. There are no known cultural resources in the vicinity of the proposed berm. Cultural resource impacts such as this are described in the 2004 CLRDP FEIR (see Impact 4.5-1), and Project-Specific

Mitigation Measure 4.5-1 requires notification of the County Coroner if human remains are discovered during construction. The impacts that could result from the proposed revision are of the same nature and general magnitude as described in the 2004 CLRDP FEIR. No deep excavation would be required for construction of the berm.

The actual construction of a berm would require a project-level CEQA review and filing of a Notice of Impending Development at the time a specific project is proposed, per CLRDP Chapter 8. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.5.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone has no potential to affect cultural resources on the Marine Science Campus. If the University chooses to locate all or part of the equipment storage and maintenance facilities in the Middle Terrace development zone, where previously such use was allowed only in the Upper Terrace development zone, it would be in areas already designated and evaluated for development in the 2004 CLRDP FEIR, where no cultural resources were identified. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.5.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks would involve construction, and as such requires study to determine if the revision would affect unknown human remains in the undeveloped right-of-way. While the University would collaborate with the City of Santa Cruz on this project, it would be up to the City of Santa Cruz to actually undertake and construct the project. The University cannot require the City to implement provisions of the CLRDP. However, to the degree that the University collaborates on the project design cultural resource impacts such as this are described and mitigated in the 2004 CLRDP FEIR (see Impact 4.5-1), and Project-Specific Mitigation Measure 4.5-1 requires notification of the County Coroner if human remains are discovered during construction. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.5.2.5 Conclusions

In conclusion, none of the proposed CLRDP revisions has the potential to result in new significant cultural resource effects or a substantial increase in the severity of previously identified significant effects related to cultural resources previously identified in the 2004 CLRDP FEIR, and therefore none of the revisions requires further study.

4.6 Geology and Soils

4.6.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified no significant impacts related to geology and soils.

4.6.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revision No. 2 (New Middle Terrace/ YLR Berm) requires study to determine if it has the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of geology and soils, as indicated below in Table 11.

Table 11. Need for Further Study of Geology and Soil Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Expose people or structures to: Rupture of known earthquake fault Strong seismic shaking Seismic related ground failure Landslides	—	—	—	—
Soil erosion	—	X	—	—
Unstable soil or geologic unit	—	X	—	—
Expansive soil	—	X	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

4.6.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

The University's proposal to eliminate the program for 80 units of housing and reduce planned building construction by 25 percent would have no effect on geology and soil because the area within which development may occur would not be altered by this proposed revision. Since 80 units of support housing would be eliminated from the CLRDP Building Program, the proposed CLRDP revisions would expose fewer people and structures to seismic-related hazards and would reduce the potential effect of soil-related hazards and erosion. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.6.2.2 New Middle Terrace/YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR requires study to determine if the revision would affect geology and soils on the Marine Science Campus because the earthen berm could be subject to erosion and/or failure. CLRDP Implementation Measure 3.2.7 requires the University to minimize erosion through implementation of the Stormwater Concept Plan, and it is expected that through drainage design and routine maintenance, the potential for erosion would not be more severe than previously addressed in the 2004 CLRDP FEIR. As for potential slope failure, the University has experienced no slope failure problems with an existing berm located in the Lower Terrace. The proposed berm would be designed with a profile similar to the berm in the Lower Terrace (i.e., using the same height and slopes), and the soils that would be used in construction would be the same type as those used in the Lower Terrace berm. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.6.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone has no potential to affect geology and soils on the Marine Science Campus. If the University chooses to locate all or part of the equipment storage and maintenance facilities in the Middle Terrace development zone, where previously such use was allowed only in the Upper Terrace development zone, it would be in areas already designated and evaluated for development in the 2004 CLRDP FEIR. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.6.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks would involve construction, and as such requires study to determine if the revision would impact soil. While the University would collaborate with the City of Santa Cruz on this project, it would be up to the City of Santa Cruz to actually undertake and construct the project. The University cannot require the City to implement provisions of the CLRDP. However, to the degree that the University collaborates on the project CLRDP Implementation Measure 3.2.7 requires the University to minimize erosion through implementation of the Stormwater Concept Plan, and it is expected that through drainage design and routine maintenance, the potential for erosion would not be more severe than previously addressed in the 2004 CLRDP FEIR.

4.6.2.5 Conclusions

In conclusion, none of the proposed CLRDP revisions has the potential to result in new significant geology and soils effects or a substantial increase in the severity of previously identified significant effects related to geology and soils previously identified in the 2004 CLRDP FEIR, and therefore none of the revisions require further study.

4.7 Hazards and Hazardous Materials

4.7.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified one significant hazards and hazardous materials impact associated with the implementation of the CLRDP and/or its near-term projects. This impact is summarized in Table 12 below.

Table 12. 2004 FEIR Hazards and Hazardous Materials Impacts

2004 CLRDP FEIR Impacts	Applicable CLRDP FEIR Mitigation Measures	CLRDP FEIR Significance Conclusion (With Mitigation)	Do proposed revisions result in new significant effects or a substantial increase in the severity of previously identified significant effects?
Impact 4.7-1: Implementation of the CLRDP could increase use of hazardous materials by non-UC entities on campus, which could create hazards to the public or the environment under routine and/or non-routine conditions. This represents a potentially significant impact.	4.7-1	Less than significant	No

Source: 2004 CLRDP FEIR

4.7.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revision No. 3 (Allow Equipment Storage and Maintenance Facilities on Middle Terrace) requires study to determine if it has the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of hazards and hazardous materials, as indicated below in Table 13.

Table 13. Need for Further Study of Hazards and Hazardous Materials Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Hazard to public or environment through routine transport or use	-	-	X	-
Hazard to public through upset and accident conditions	-	-	X	-
Hazardous conditions with ¼ mile of school	-	-	-	-
Located on hazardous materials site	-	-	-	-

Within two miles with public airport	—	—	—	—
Within the vicinity of private airstrip	—	—	—	—
Impair emergency response plan	—	—	—	—
Wildfires	—	—	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

4.7.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

The University’s proposal to eliminate the program for 80 units of housing and reduce planned building construction by 25 percent would have no effect on hazards and hazardous materials because the area within which development may occur would not be altered by this proposed revision. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.7.2.2 New Middle Terrace/YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR has no potential to affect hazards or hazardous materials on the Marine Science Campus. The 2004 CLRDP FEIR reported that an EDR records search did not identify the CLRDP project site as a Cortese/CERCLIS site and concluded that because the site is not listed as a contaminated site, no significant hazard to the public or the environment would be created as a result of site development under the CLRDP. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.7.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone has no potential to affect hazards and hazardous materials on the Marine Science Campus. If the University chooses to locate all or part of the equipment storage and maintenance facilities in the Middle Terrace development zone, where previously such use was allowed only in the Upper Terrace development zone, it would be in areas already designated and evaluated for development in the 2004 CLRDP FEIR, and the types of materials to be stored do not differ from those previously analyzed. Furthermore, the CLRDP contains measures requiring protective measures for the laydown yard

(see CLRDP Implementation Measure 3.10.2). This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.7.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks would involve construction, and as such requires study to determine if the revision would disrupt soils that could contain hazardous materials. The 2004 CLRDP FEIR identified 11 regulatory-listed sites in the vicinity of the Marine Science Campus, including the Raytek site, which was listed as a RCRA HAZNET site because it transports small quantities of hazardous substances. The UPRR right-of-way itself was not among the listed sites. The 2004 CLRDP FEIR found no significant impacts related to soil contamination in or near the project site. The railroad crossing will not be available for ordinary traffic to the site, and would not be used as a material or supply transport route, so there would be no potential for conflicts with railroad traffic or resultant spills or upsets on this route. This revision will have a positive effect in that emergency access to the site would be improved with the proposed revision (see also Section 4.15 below). This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.7.2.5 Conclusions

In conclusion, the net effect of the proposed CLRDP revisions would be to reduce the overall development space under the CLRDP, and no increases in development space that would include the use of hazardous material by non-UC entities have been proposed. None of the proposed revisions has the potential to result in new significant hazards and hazardous materials effects or a substantial increase in the severity of previously identified significant effects related to hazards and hazardous materials, and therefore none of the revisions requires further study.

Furthermore, there are no changed circumstances or new information that would lead to new significant hazards and hazardous materials effects or a substantial increase in the severity significant effects related to hazards and hazardous materials previously identified in the 2004 CLRDP FEIR.

4.8 Hydrology and Water Quality

4.8.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified no significant hydrology or water quality impacts associated with the implementation of the CLRDP and/or its near-term projects.

4.8.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revision No. 2 (New Middle Terrace/ YLR Berm) requires study to determine if it has the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of hydrology and water quality, as indicated below in Table 14.

Table 14. Need for Further Study of Hydrology and Water Quality Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Violate water quality standards	–	X	–	–
Groundwater	–	X	–	–
Change in drainage patterns leading to erosion/siltation	–	X	–	–
Change in drainage patterns leading to flooding	–	X	–	–
Exceed capacity of stormwater drainage systems	–	–	–	–
Otherwise degrade water quality	–	X	–	–
Housing within 100-year flood hazard	–	–	–	–
Impede or redirect flood flows	–	X	–	–

Expose people or structures to flooding	—	—	—	—
Inundation by seiche, tsunami, or mudflow	—	—	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

4.8.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

The University’s proposal to eliminate the program for 80 units of housing and reduce planned building construction by 25 percent would have no effect on hydrology and water quality because the area within which development may occur would not be altered by this proposed revision. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.8.2.2 New Middle Terrace/YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR requires study to determine if the revision would affect drainage patterns along the bluffs of YLR possibly affecting groundwater supply (including groundwater that might release into the bluffs of YLR), lead to erosion that could result in degradation of water quality and siltation, and/or lead to flooding by disrupting historical stormwater flow patterns. CLRDP Implementation Measure 7.1.3 addresses these issues by requiring the University to develop and manage drainage systems on the Marine Science Campus that maintain pre-development drainage patterns and peak flow rates to the degree feasible. In addition, CLRDP Implementation Measure Implementation Measure 7.1.6 requires the University to 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. The 2004 CLRDP FEIR found no significant impacts related to hydrology and water quality. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.8.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone has no potential to affect hydrology and water quality on the Marine Science Campus. If the University chooses to locate all or part of the equipment storage and maintenance facilities in the Middle Terrace development zone, where previously such use was allowed only in the Upper Terrace development zone, it would be in areas already designated and evaluated for development in the 2004 CLRDP FEIR.

Furthermore, the CLRDP contains measures requiring water quality measures for the laydown yard (see CLRDP Implementation Measure 3.10.2). This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.8.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks would involve construction, and as such requires study to determine if the revision would create hydrology and water quality impacts. While the University would collaborate with the City of Santa Cruz on this project, it would be up to the City of Santa Cruz to actually undertake and construct the project. The University cannot require the City to implement provisions of the CLRDP. However, to the degree that the University collaborates on the project CLRDP Implementation Measure 7.1.1 requires the University to implement Best Management Practices for stormwater and other runoff, and it is expected that through drainage design and routine maintenance, the potential for hydrological and water quality impacts would not be more severe than previously addressed in the 2004 CLRDP FEIR. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.8.2.5 Conclusions

In conclusion, none of the proposed CLRDP revisions has the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects related to hydrology and water quality, and therefore none of the revisions requires further study. Furthermore, there are no changed circumstances or new information that would lead to new significant hydrology and water quality effects or a substantial increase in the severity of significant effects related to hydrology and water quality previously identified in the 2004 CLRDP FEIR.

4.9 Land Use and Planning

4.9.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified no significant land use or planning impacts associated with the implementation of the CLRDP and/or its near-term projects.

4.9.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revisions Nos. 3 (Allow Equipment Storage and Maintenance Facilities on Middle Terrace) and 5 (Weeklong Accommodations within 500-Foot Agricultural Setback) require study to determine if they have the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of land use and planning, as indicated below in Table 15.

Table 15. Need for Further Study of Land Use and Planning Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study				
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access	#5 Weeklong Accommodations within 500' Ag Setback
Established Communities	—	—	—	—	—
Applicable Plans and Policies	—	—	—	—	—
Applicable HCP or HCCP	—	—	—	—	—
Land Use Compatibility	—	—	X	—	X

Note: “—” indicates no study necessary; “X” indicates a need for study

4.9.2.1 Eliminate 80 Units of Housing from Plan (CLRDP Revision No. 1)

The University’s proposal to eliminate the program for 80 units of housing and reduce planned building construction by 25 percent would have no effect with respect to land use compatibility or any other land use issue because the area within which development may occur would not be altered by this proposed revision. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.9.2.2 New Middle Terrace/ YLR Berm (CLRDP Revision No.2)

The addition of a new CLRDP Implementation Measure requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR has no potential to negatively affect land use and planning issues. The proposed revision would have a positive effect on land use compatibility in that it would serve to increase visual and noise

separation between the marine research and education uses in the Middle Terrace and the natural habitat of YLR. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.9.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The 2004 CLRDP, as analyzed in the 2004 CLRDP FEIR, restricted warehouse, storage facility and workshop uses to the Upper Terrace development zone. Under the revised project, only a portion of the development program for these uses would be possible in the Upper Terrace development zone, because of the reduction of allowable development in that area. Accordingly, the University proposes to revise the CLRDP to allow all or a part of these uses to be developed in the eastern and/or northern part of the Middle Terrace development zone. The eastern part of the site is adjacent to the residential uses of the De Anza Mobile Home Park. The building design, activity, and noise associated with the potential warehouse, storage facility and workshop uses, under the revised plan could potentially result in a land use incompatibility with neighboring residential uses as the result of mechanical noise, traffic, or building night lights. As specified in CLRDP Figure 5.2 (Land Use Diagram), however, proposed uses in the Middle Terrace development zone would be separated from the residential uses at De Anza Mobile Home Park by a buffer of at least 200 feet of land designated as open space. This buffer would be retained in the revised 2006 CLRDP. Further, the De Anza Mobile Home Park is separated from the eastern edge of the project site by a masonry block wall approximately 1,900-foot-long and 4- to 5-foot-high and by scattered trees. The existing wall and vegetation and the open space corridor provided by CLRDP Figure 5.2 (Land Use Diagram) would effectively buffer adjacent residential uses from the mechanical and activity noise of the proposed warehouse, storage facility and workshop uses proposed for the Middle Terrace. Accordingly, the proposed uses under the revised 2006 CLRDP would be compatible with the existing adjacent residential land uses. None of the other revised project elements has the potential to result in land use incompatibilities or significant changes in land use.²³

²³ See also the analysis of noise impacts below for a discussion of mitigation measures that have a bearing on land use compatibility issues.

4.9.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks would not have a land use or planning impact because it would be the same land use that currently exists within the UPRR or Shaffer Road right-of-way. Use of the crossing would be restricted to emergency vehicles, so there would be no increase in average daily traffic and therefore no change in the compatibility of the street with neighboring uses. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.9.2.5 Weeklong Accommodations Within 500' Ag Setback (CLRDP Revision No. 5)

The proposed revision of CLRDP Implementation Measure 2.2.1 to allow short-term accommodations (i.e., one week or less) within the 500-foot agricultural setback requires study to determine if it triggers the need to prepare a Supplemental or Subsequent EIR. The 2004 CLRDP prohibited all residential uses within 500 feet of neighboring agricultural property to reduce land use conflicts between residential uses on the Marine Science Campus and neighboring agricultural uses. The proposed revision would allow short-term accommodations within 300 feet of established crop lines but would limit the stay in these rooms to one week or less. By limiting the length of stay in these accommodations, the proposed revision would substantially limit land use conflicts arising from air quality and noise complaints. Such conflicts would be approximately the same as experienced by the researchers, staff, and students who would otherwise occupy areas up to the 300-foot setback from established crop lines. Therefore, the proposed revision would not result in new significant land use or planning effects or a substantial increase in the severity of previously identified significant effects related to land use or planning.

4.9.2.6 Conclusions

In conclusion, the proposed project revisions would not result in new significant land use effects or a substantial increase in the severity of previously identified significant effects. Furthermore, there are no changed circumstances or new information that would lead to new significant land use effects or a substantial increase in the severity of significant effects related to land use previously identified in the 2004 CLRDP FEIR.

4.10 Mineral Resources

4.10.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified no significant mineral resource impacts associated with the implementation of the CLRDP and/or its near-term projects.

4.10.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

None of the proposed CLRDP Revisions require study to determine if they have the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of mineral resources, as indicated below in Table 16.

Table 16. Need for Further Study of Mineral Resources Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Loss of resource of value to region or state	—	—	—	—
Loss of locally important resource	—	—	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

No significant mineral resources are present at the project site, and the 2004 CLRDP FEIR identified no significant impacts related to mineral resources. None of the proposed CLRDP revisions has the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects related to mineral resources, and therefore none of the revisions requires further study.

Furthermore, there are no changed circumstances or new information that would lead to new significant mineral resources effects or a substantial increase in the severity of significant effects related to mineral resources previously identified in the 2004 CLRDP FEIR.

4.11 Noise

4.11.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified six potentially significant noise impacts associated with the implementation of the CLRDP and/or its near-term projects. These impacts are summarized in Table 17 below.

Table 17. 2004 FEIR Noise Impacts

2004 CLRDP FEIR Impacts	Applicable CLRDP FEIR Mitigation Measures	CLRDP FEIR Significance Conclusion (With Mitigation)	Do proposed revisions result in new significant effects or a substantial increase in the severity of previously identified significant effects?
Impact 4.11-1: Development of the UCSC Marine Science Campus under the CDLRP could locate noise sources and sensitive receptors in close proximity on the campus, creating the potential to expose persons to, or generate, noise levels in excess of noise/land use compatibility standards.	4.11-1	Less than significant	No
Impact 4.11-2: Operation of HVAC equipment that is part of the USGS Western Coastal and Marine Geology Facility, if not properly designed, could generate noise levels that exceed the normally acceptable OPR standard at the 42 Apartment/Townhouse Units proposed on the middle terrace.	4.11-2	Less than significant	No
Impact 4.11-3: Sound levels generated by delivery activity at the Shared Campus Warehouse and Laydown Facility could potentially affect residents of future campus housing planned for the upper terrace. This could be a potentially significant impact if the residences are located within 75 feet of the Shared Campus Warehouse and Laydown Facility, where they would be exposed to sound levels above the OPR “normally acceptable” noise standard of 65 dBA for multi-family residences.	4.11-3	Less than significant	No

<p>Impact 4.11-4: Noise generated by construction activity under the CLRDP may substantially increase noise levels at nearby sensitive receptors, resulting in temporary and localized noise impacts. This would be a potentially significant impact.</p>	<p>4.11-4</p>	<p>Less than significant</p>	<p>No</p>
<p>Impact 4.11-5: Noise generated by nighttime construction of the Shared Campus Warehouse and Laydown Facility could potentially exceed the 70 dBA Leq threshold at nearby residents along Shaffer Road and north of the railroad tracks. This is a potentially significant impact.</p>	<p>4.11-5</p>	<p>Less than significant</p>	<p>No</p>
<p>Impact 4.11-6: Noise generated by the construction of the USGS Western Coastal and Marine Geology facility would exceed the 80 dBA Leq threshold at the 42 Apartment/ Townhouse Units that are also proposed for the near-term development on the middle terrace. This potentially significant impact would only occur if the 42 Apartment/Townhouse Units are developed and occupied before construction of the USGS facility.</p>	<p>4.11-6</p>	<p>Less than significant</p>	<p>No</p>

Source: 2004 CLRDP FEIR

4.11.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revisions Nos. 2 (New Middle Terrace/ YLR Berm), 3 (Allow Equipment Storage and Maintenance Facilities on Middle Terrace), 4 (New Emergency Access) and 5 (Weeklong Accommodations within 500-Foot Agricultural Setback) require study to determine if they have the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of noise, as indicated below in Table 18. The other proposed revision to the CLRDP either would not create noise or would not create facilities susceptible to noise impacts, and thus requires no further analysis.

Table 18. Need for Further Study of Noise Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study				
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access	#5 Weeklong Accommod. w/in 500' Ag Setback
Excess Noise Exposure	—	X	X	X	X
Ground-Borne Vibration and Ground-Borne Noise	—	X	X	X	X
Permanent Increase in Ambient Noise Levels	—	—	X	—	—
Temporary Increase in Ambient Noise Levels	—	X	X	X	—
Exposure to Noise from Public Airport Activity	—	—	—	—	—
Exposure to Noise from Private Airstrip Activity	—	—	—	—	—
Cumulative Noise Impacts	—	—	—	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

4.11.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

Under the revised project, program for 80 units of apartment and townhouse housing would be eliminated from the CLRDP building program. This would also serve to eliminate one of the five near-term projects, i.e., 42 Apartment/Townhouse Units, set forth in CLRDP Chapter 7. This revision eliminates Impact 4.11-2 and the need for Project-Specific Mitigation Measure 4.11-2, which required the University to implement noise control measures in the design of the USGS Western Coastal and Marine Geology Facility HVAC systems to reduce the resulting noise levels to 65 DNL or lower at the 42 Apartment/Townhouse units. It also eliminates Impact 4.11-6 and the need for Project-Specific Mitigation Measure 4.11-6, which required noise mitigation for the 42 Apartment/Townhouse units during construction of the USGS facility. The 42 units are no longer a part of the building program, so these measures no longer apply.

4.11.2.2 New Middle Terrace/ YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR requires study

to determine if the revision would create temporary construction noise. The 2004 CLRDP FEIR identified the impact of construction activity on nearby sensitive receptors (Impact No. 4.11-4) and addressed this impact with General Mitigation Measure 4.11-4, which requires an approved construction noise mitigation program prior to the initiation of construction. Potential construction noise impacts associated with the proposed revision are consistent with, and no more severe than the effects identified in the 2004 CLRDP FEIR in Impact No. 4.11-4 and are adequately addressed by General Mitigation Measure 4.11-4.

4.11.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The revision to the CLRDP to allow warehouse, storage, and workshop facilities in Subarea 2 and 3 of the Middle Terrace requires study to determine if the revision would create impacts related to excessive noise exposure and temporary ambient noise in YLR, which is located immediately west of the Middle Terrace development zone. Subareas No. 3, which is located the closest to YLR of the two development subareas, is approximately 225 feet away from YLR at its closest point. According to the 2004 CLRDP FEIR, the Shared Campus Warehouse and Laydown Facility would generate approximately 66.1 dBA of noise at 50 feet and 50.5 dBA at 300 feet, a difference of -15.6 dBA over 250 feet. Using a simple weighted average, 225 feet represents 90 percent of 250 feet, and 90 percent of -15.6 = -14.0 dBA. Accordingly, the noise level at YLR (225 feet from the proposed facility) would be expected to be approximately 52.1 dBA. This represents a reasonable worst-case analysis because, in reality, the relationship between noise and distance is an inverse square relationship, i.e., the intensity of noise varies inversely with the square of the distance from the source.²⁴ In either case, the expected noise associated with the Shared Campus Warehouse and Laydown Facility as it would affect YLR, would be substantially less than the 60-dBA standard set by CLRDP Implementation Measure 3.4.3. Therefore, the impact would be less than significant. In addition, the noise impact associated with ongoing operations at the Shared Campus Warehouse and Laydown Facility was described in the 2004 CLRDP FEIR (see Impact 4.11-5), and Project-Specific Mitigation Measure 4.11-5 limits construction activity to between the hours of 7:00 am and 10:00 pm all days of the week.

²⁴ <http://www.glenbrook.k12.il.us/GBSSCI/PHYS/CLASS/sound/u1112b.html>

The proposed revision of the land use plan to allow warehouse, storage and workshop uses in the Middle Terrace development zone also could potentially trigger Impact 4.11-3, which identifies a potentially significant noise impact if residences were to be located within 75 feet of the Shared Campus Warehouse and Laydown Facility, where they would be exposed to sound levels above the OPR “normally acceptable” noise standard of 65 dBA for multi-family residences. There is no longer a potential for the Shared Warehouse and Laydown Facility to affect the 80 units of apartment/townhouse housing (which would be eliminated by a proposed change to the CLRDP), but under the revised land use designation these facilities would have the potential to result in noise impacts to the other housing types allowed in the Middle Terrace development zone (i.e., 30 researcher rooms and 10 overnight accommodations). Thus, no new impact would result, and the severity of the impact would not change, but the location of the previously identified noise impact would be altered. Accordingly, Impact 4.11-3 has been re-written as follows:

Impact 4.11-3: Sound levels generated by delivery activity at the Shared Campus Warehouse and Laydown Facility could potentially affect residents of future campus housing planned for the ~~upper~~ middle terrace. This could be a potentially significant impact if the residences are located within 75 feet of the Shared Campus Warehouse and Laydown Facility, where they would be exposed to sound levels above the OPR “normally acceptable” noise standard of 65 dBA for multi-family residences.

Project-Specific Mitigation Measure 4.11-3 has also been rewritten as follows:

Project-Specific Mitigation Measure 4.11-3: As part of the design of the Shared Campus Warehouse and Laydown Facility, the University shall implement noise control measures to reduce the resulting noise levels to 65 DNL or lower at future campus housing planned for the ~~upper~~ middle terrace development area. Control measures incorporated into the design and location of the Shared Campus Warehouse and Laydown Facility may include but not be limited to the following:

- *The University shall orient the warehouse so as to shield noise generated by activity at the Shared Campus Warehouse and Laydown Facility, from potential sites of future campus housing on the ~~upper~~ middle terrace development area.*

- *The University shall incorporate an easy turn-around for trucks such that they can avoid maneuvering in reverse and thus minimize back-up alarm noise.*
- *Once the future campus housing planned for the ~~upper~~ middle terrace becomes inhabited, the University shall limit noisy outdoor activities (such as those involving the use of heavy equipment) at the warehouse and laydown area from 10:00 PM to 6:00 AM all days of the week.*
- *The University shall construct a wall around the laydown area, consistent with CLRDP guidelines, to attenuate noise levels at future campus housing planned for the ~~upper~~ middle terrace development area. The wall shall be completed before the future campus housing planned for the ~~upper~~ middle terrace is occupied.*

Locating warehouse, storage and workshop uses in the Middle Terrace development zone is not expected to have a significant impact on the neighboring De Anza Mobile Home Park, as the proposed facilities would be located at least 200 feet distant from the mobile home park (see analysis at the beginning of this section). Further, as discussed above under Land Use, the mobile home park is separated from the facility by a wall and scattered trees. These elements would buffer the residential development from noise associated with the operation of the proposed facility. Modifications to Impact 4.11-3 and Project-Specific Mitigation Measure 4.11-3 do not represent new significant effects or a substantial increase in the severity of previously identified significant effects.

The construction of a warehouse, storage, and workshop facilities in the Middle Terrace would result in construction noise impacts on the De Anza Mobile Home Park. The 2004 FEIR identified the impact of construction activity on nearby sensitive receptors (see Impact 4.11-4) and addressed this impact with General Mitigation Measure 4.11-4, which requires an approved construction noise mitigation program prior to the initiation of construction. Potential construction noise impacts associated with the proposed revision are consistent with, and no

more severe than the effects identified in the 2004 CLRDP FEIR in Impact No. 4.11-4 and are adequately addressed by General Mitigation Measure 4.11-4.²⁵

Accordingly, locating all or a portion of the Shared Campus Warehouse and Laydown Facility in the Middle Terrace development zone, either in Subareas No. 2 and 3 or in Development Subarea No. 8 in the easternmost part of the Middle Terrace would not result in new significant effects or a substantial increase in the severity of previously identified significant effects. Impacts related to temporary increases in ambient noise levels would be addressed by General Mitigation Measure 4.11-4, which requires approval of a construction noise mitigation program prior to the initiation of construction. Furthermore, General Mitigation Measure 4.11-1 and Project-Specific Mitigation Measure 4.11-3, as revised above, would serve to further mitigate noise impacts associated with the Shared Campus Warehouse and Laydown Facility.

4.11.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks would involve construction, and as such requires study to determine if the revision would result in excess noise, vibration, and/or an increase in temporary ambient noise levels. While the University would collaborate with the City of Santa Cruz on this project, it would be up to the City of Santa Cruz to actually undertake and construct the project. The University cannot require the City to implement provisions of the CLRDP. However, to the degree that the University collaborates on the project design construction-related noise impacts such as this are described in the 2004 CLRDP FEIR (see Impact 4.11-4), and General Mitigation Measure 4.11-4 requires a noise mitigation program prior to the initiation of construction. The noise that could result from the proposed revision is of the same nature and general magnitude as described in the 2004 CLRDP FEIR.

²⁵ The 2004 FEIR also separately identified noise-related impacts on nearby residents along Shaffer Road and north of the railroad tracks associated with nighttime construction activities at the Shared Campus Warehouse and Laydown Yard (see Impact No. 4.11-5). The potential impact on De Anza Mobile Home Park was adequately described and mitigated in FEIR Impact No. 4.11-4 and Mitigation Measure 4.11-4.

4.11.2.5 Weeklong Accommodations Within 500' Ag Setback (CLRDP Revision No. 5)

The proposed revision of CLRDP Implementation Measure 2.2.1 to allow short-term accommodations (i.e., one week or less) within the 500-foot agricultural setback requires study to determine if it triggers the need to prepare a Supplemental or Subsequent EIR. The 2004 CLRDP prohibited all residential uses within 500 feet of neighboring agricultural property to reduce noise and vibration impacts on residential uses on the Marine Science Campus. The proposed revision would allow short-term accommodations within 300 feet of established crop lines but would limit the stay in these rooms to one week or less. By limiting the length of stay in these accommodations, the proposed revision would substantially limit noise and vibration impacts arising from neighboring agricultural operations. Such noise impacts would be approximately the same as experienced by the researchers, staff, and students who would otherwise occupy areas up to the 300-foot setback from established crop lines. Therefore, the proposed revision would not result in new significant noise effects or a substantial increase in the severity of previously identified significant effects related to noise.

4.11.2.6 Conclusions

In conclusion, none of the proposed CLRDP revisions has the potential to result in new significant noise effects or a substantial increase in the severity of previously identified significant effects related to noise, and therefore none of the revisions requires further study. Furthermore, there are no changed circumstances or new information that would lead to new significant noise effects or a substantial increase in the severity of significant effects related to noise previously identified in the 2004 CLRDP FEIR.

4.12 Population and Housing

4.12.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified no significant population and housing impacts associated with the implementation of the CLRDP and/or its near-term projects.²⁶

²⁶ Following certification of the 2004 CLRDP FEIR, the University published the UCSC 2005 LRDP Final EIR for the main UCSC campus. The UCSC 2005 LRDP EIR is a program-level analysis of the 2005 LRDP land use plan, and analyzes main campus enrollment to 19,500 by 2020-21, including associated increases in building square footage and faculty and staff. The 2005 LRDP DEIR included the following different standard of significance for its population and housing analysis that was not used on the CLRDP EIR: "The proposed project would have a

4.12.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

The proposed CLRDP Revision No. 1 (Eliminate 80 Units of Housing from Plan) has the potential to result in changes to the analysis of housing presented in the 2004 CLRDP FEIR. As shown in Table 19, below, none of the other proposed revisions has any potential to result in changes relevant to the analysis of population and housing.

Table 19. Need for Further Study of Population and Housing Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Induce substantial population growth or concentration of population in an area	X	—	—	—
Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere	—	—	—	—
Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.	—	—	—	—

significant impact on population and housing if it would . . . contribute substantially to a cumulative demand for housing that could not be accommodated by local jurisdictions.” This standard is not included in the list of standards provided in CEQA Appendix G, which is used by many agencies, including the University, as the basis for defining significance thresholds in an EIR. Nor has this standard been adopted by the University for general application in project review under CEQA. The University chose to use the standard in connection with the Main Campus LRDP DEIR in response to concerns raised by community members about the scope of the planned expansion of the main campus and the potential effect on housing resources in Santa Cruz. In scoping for, and comment on the 2004 CLRDP FEIR, there was no comparable expression of concern about housing impacts. Accordingly, there was no basis at the time the 2004 CLRDP FEIR was prepared for augmenting the Appendix G thresholds to include an additional standard based on cumulative demand for housing. No such standard is required under CEQA and, in light of the history of this FEIR and the character of the changes to the CLRDP, no such standard has been applied in connection with this addendum.

Note: “—” indicates no study necessary; “X” indicates a need for study

4.12.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

The elimination of program for 80 units of housing from the CLRDP building program would not change impacts related to population and housing. With or without the 80 units of housing, the development of the Marine Science Campus would provide research facilities to accommodate the same number of researchers, employees, students, and associated family members. Accordingly, the project’s contribution of new persons residing in the City of Santa Cruz (605 persons) and the County of Santa Cruz (728 persons) would remain constant (although an additional 90 persons would reside off campus). The percentage of total population residing in the City of Santa Cruz and the County of Santa Cruz in 2000 represented by these numbers would also remain constant (1.6 percent and less than 1.0 percent, respectively). The 2004 CLRDP FEIR concluded: “The numbers and percentages of new population would not represent substantial population growth or a concentration of population in the City of Santa Cruz or Santa Cruz County.” This conclusion would not change with the elimination of 80 units of housing from the CLRDP building program.

The 2004 CLRDP FEIR found that the full development of the CLRDP building program would not displace substantial existing housing or substantial numbers of people. The 2004 CLRDP FEIR made reference to the demolition of two caretaker-housing units, which would be replaced with more compatible units in the future. The elimination of 80 units of housing from the CLRDP building program would not change the displacement of caretaker housing, result in the displacement of any other housing to the extent foreseeable, or change the FEIR conclusion. The 2004 CLRDP FEIR also found that the near-term projects would have no effect on the displacement of existing housing or persons, and this conclusion would not change with the elimination of 80 housing units from the CLRDP building program.

Three documents that contain new information of substantial importance to the 2004 CLRDP FEIR have become available since certification of the 2004 CLRDP FEIR in 2004—the *2004 AMBAG Population, Housing Unit & Population Forecast*, the *2005 UCSC Long Range Development Plan (2005 LRDP)*, and the *2005 LRDP Final Environmental Impact Report (2005 LRDP FEIR)*. The effect of this new information and the cumulative impact of eliminating 80 units of housing from the Marine Science Campus CLRDP are discussed below.

The 2004 CLRDP FEIR found that the 728 persons associated with the Marine Science Campus building program was “within the margin of error of any population predictions that forecast 15 to 20 years of growth.” It further found that “even if these persons were added to the AMBAG

projections for the County, the resulting total increase in population . . . would not be considered substantial.” This analysis was based on the *1997 Regional Population and Employment Forecast for Monterey, San Benito, and Santa Cruz Counties* (AMBAG, 1997), which forecasted that Santa Cruz County’s 2000 population of 257,737 persons would increase to 303,646 persons by 2020 (an annual average growth rate of .82 percent).²⁷

In its updated report entitled: *2004 AMBAG Population, Housing Unit & Employment Forecasts* (AMBAG, 2004), AMBAG adjusted the population forecast for Santa Cruz County substantially downward. According to the 2004 AMBAG report, Santa Cruz County’s 20-year growth forecast (using the years 2005 to 2025)²⁸ shows that Santa Cruz County’s 2005 population of 267,544 persons would increase to 298,773 persons by 2025 (an annual average growth rate of 0.55 percent). Even within the context of this lowered 2004 AMBAG forecast, the 728 persons associated with the Marine Science Campus building program would be within the margin of error for the 20-year forecast and if added to the total forecasted population increase would not be substantial.

The new AMBAG projection for Santa Cruz County is a substantially slower rate of growth than projected for the three-county AMBAG Region (1.32 percent), a slower rate than projected for California as a whole (1.27 percent),²⁹ a slower rate than the historical growth rate of Santa Cruz County between 1996 and 2005 (0.72 percent),³⁰ and finally a slightly higher rate (by 5/100ths of a percent) than the 0.50 percent annual growth rate set by the County Board of Supervisors for

²⁷ With regard to cumulative impacts within the City of Santa Cruz, the CLRDP FEIR concluded that a cumulative analysis of added residential population would not be meaningful because: “[A]t a local level, population growth tends to be determined by residential capacity that is available in the community. Because it is expected that housing supply within the city will likely be constrained in future years, persons associated with UCSC will tend to reside in other communities that have housing to offer.”

²⁸ The 20-year period between 2005 and 2025 most closely corresponds to the CLRDP planning horizon.

²⁹ State of California, Department of Finance, *Population Projections by Race/Ethnicity for California and Its Counties 2000–2050*, Sacramento, California, May 2004); this analysis used 2000 through 2020 because a 2005 through 2025 projection was unavailable.

³⁰ State of California, Department of Finance, *Revised Historical City, County and State Population Estimates, 1991-2000, with 1990 and 2000 Census Counts*. Sacramento, California, March 2002. Also, State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2006, with 2000 Benchmark*. Sacramento, California, May 2006

unincorporated Santa Cruz County.³¹ In short, Santa Cruz County population growth appears to be neither unusual, unexpected, nor out of proportion to growth in the surrounding region or the state.

Additional new information available since certification of the 2004 CLRDP FEIR is UCSC's adoption of the 2005 LRDP for the UCSC main campus. In it, UCSC proposed to increase the student population associated with the UCSC main campus to 19,500. The 2004 CLRDP FEIR analyzed cumulative conditions based on a projected UCSC main campus student population of 19,000—500 students less than proposed in the adopted LRDP. But while the new LRDP changes cumulative conditions with regard to population, the contribution made to cumulative population growth by the Marine Science Campus building program is not substantially different or greater than that analyzed in the 2004 CLRDP FEIR. Nor does the change in off-campus population associated with the elimination of 80 units of support housing from the CLRDP Building Program change the contribution to cumulative population growth made by the CLRDP.

The proposed CLRDP revision, as evaluated in light of new information from AMBAG and UCSC, would not result in new significant population effects or a substantial increase in the severity of previously identified significant population effects.

4.12.2.2 New Middle Terrace/ YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR has no potential to negatively affect population growth or result in the displacement or construction of housing. Construction of the berm would not bring additional persons to the campus, and no housing is located at the proposed location for the berm. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.12.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone has no potential to negatively affect

³¹ See Appendix D, *2004 AMBAG Population, Housing Unit & Employment Forecast*.

population growth or result in the displacement or construction of housing. Allowing this use in the Middle Terrace, where previously such use was allowed only in the Upper Terrace development zone, would not bring additional persons to the campus, and no existing housing is located in the Middle Terrace to be displaced by the proposed use. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.12.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks has no potential to negatively affect population growth or result in the displacement or construction of housing. Construction of the crossing would not bring additional persons to the campus, and no housing is located in right-of-way where the crossing would be located. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.12.2.5 Conclusions

In conclusion, none of the proposed CLRDP revisions has the potential to result in new significant population and housing effects or a substantial increase in the severity of previously identified significant effects related to population and housing, and therefore none of the revisions require further study. Furthermore, while new information related to regional population has been published since publication of the CLRDP FEIR, the new information, vis-à-vis the Marine Science Campus, would not lead to new significant population or housing effects or a substantial increase in the severity of significant effects related to population and housing previously identified in the 2004 CLRDP FEIR.

4.13 Public Services

4.13.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified no significant public services impacts associated with the implementation of the CLRDP and/or its near-term projects.

4.13.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revision No. 1 (Eliminate 80 Units of Housing) requires study to determine if it has the potential to result in new significant effects or a substantial increase in the severity of

previously identified significant effects in the impact area of public services, as indicated below in Table 20.

Table 20. Need for Further Study of Public Services Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Fire protection	X	—	—	—
Police protection	X	—	—	—
Schools	X	—	—	—
Parks	X	—	—	—
Other public facilities	X	—	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

4.13.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

The University proposes to amend the CLRDP to eliminate the program for 80 units of apartment and townhouse housing from the CLRDP building program. With regard to fire and police service, the 2004 CLRDP FEIR found that implementation of the CLRDP would not have significant impacts on the City’s ability to deliver fire and police protection services and would not require the construction of new fire or police stations. It also found that the cumulative impacts on fire and police service in the area were less than significant and that the CLRDP’s individual contribution to cumulative fire and police service demand for services provided by the City of Santa Cruz was less than significant. The University’s proposal to reduce planned building construction by 25 percent would not change these findings. It would, however, serve to reduce demand generated by the Marine Science Campus for police and fire services and contribute less to the cumulative demand for these services region wide. The reduction of housing on the campus also would reduce the demand for water from the campus. To the extent that the residents not housed on the campus choose to live in the area, the overall demand for police, fire, and water services provided by the City of Santa Cruz would be similar to that described in the 2004 CLRDP FEIR.

With regard to impacts on schools, reduction in the building program would not affect the CLRDP’s estimate of the number of persons drawn to the area as a result of the new

development.³² However, the demand for space in the schools closest to the Marine Science Campus would be expected to be somewhat reduced by the elimination of 80 family residences from the plan, since families who would have lived on the campus, whose children would have attended the closest school, would be expected to be more widely distributed throughout the community and the region. However, this would not change the conclusions of the prior analysis. No significant school impacts, with respect to demand for schools that would require the construction of new facilities, were identified, either at the project level or cumulatively.

4.13.2.2 New Middle Terrace/ YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR has no potential to negatively affect public services. Construction of the berm would not create new demand for police, fire, school, or park services. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.13.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone has no potential to negatively affect public services. Allowing this use in the Middle Terrace, where previously such use was allowed only in the Upper Terrace development zone, would not create new demand for police, fire, school, or park services. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.13.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks has

³² As was the case with the 2004 CLRDP FEIR analysis of population and housing, the analysis of public services impacts relied upon AMBAG's *Regional Population and Employment Forecast 1997*. See the analysis of population and housing in the section above for a discussion of the new population forecasts available from AMBAG and the effect this new information has on the analysis of cumulative impacts contained in the 2004 CLRDP FEIR.

no potential to negatively affect public services. Construction of the crossing would not create new demand for police, fire, school, or park services. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.13.2.5 Conclusions

In conclusion, none of the proposed CLRDP revisions has the potential to result in new significant public services effects or a substantial increase in the severity of previously identified significant effects related to public services, and therefore none of the revisions require further study. Furthermore, there are no changed circumstances or new information that would lead to new significant public services effects or a substantial increase in the severity of significant effects related to public services previously identified in the 2004 CLRDP FEIR.

4.14 Recreation

4.14.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified no significant recreation impacts associated with the implementation of the CLRDP and/or its near-term projects.

4.14.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revision No. 1 (Eliminate 80 Units of Housing) requires study to determine if it has the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of recreation, as indicated below in Table 21.

Table 21. Need for Further Study of Recreation Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Increased use of existing recreation facility	X	—	—	—
Requires construction of new recreation facility	X	—	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

4.14.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

As was the case with the analysis of public services, above, the University’s proposal to eliminate the program for 80 units of housing and reduce planned building construction by 25 percent would not change the conclusions of the 2004 CLRDP FEIR with regard to recreation impacts. The 2004 CLRDP FEIR found that implementation of the CLRDP’s entire development program would generate an additional average daily occupancy of 728 people by 2020. The 2004 CLRDP FEIR noted that some of these people might contribute to the demand and deterioration of park and recreation resources in the City of Santa Cruz but also noted that the 2004 CLRDP would expand and improve publicly accessible on-site recreation and educational amenities, including docent-led tours and a total of 8,000 square feet of paved and unpaved sports courts for use by on-site residents. The 2004 CLRDP FEIR found that the demand generated for recreational facilities attributable to increases in on-site population at completion of the CLRDP’s entire development program would be offset by the sport courts and new trail segments included in the CLRDP. The 2004 CLRDP FEIR also noted that future Marine Science Campus students and faculty would have access to recreation and sports facilities on the University’s main campus, so that the CLRDP’s entire development program would not be expected to increase appreciably the use of existing neighborhood or regional parks, or require physically altered government facilities to accommodate the project. The 2004 CLRDP FEIR concluded that the CLRDP’s entire development program and the near-term projects would not have a significant adverse impact on recreational resources and parks.

The proposed reduction in on-campus housing would lessen demand for recreational facilities in the immediate vicinity of the Marine Science Campus, as the resident population on the campus, who would be expected to seek these facilities near their homes, would be smaller. The

population that would have resided in the 80 units of planned housing would instead spread out into surrounding neighborhoods and cities. Under the revised CLRDP program, the overall demand on recreational facilities in the City and County of Santa Cruz, thus, would not change, but the demand would be expected to be somewhat more widely distributed around the city and the region.

4.14.2.2 New Middle Terrace/ YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR has no potential to negatively affect recreation. Construction of the berm would not generate new demand for recreation or place additional demand on existing recreation facilities. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.14.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone has no potential to negatively affect recreation. Allowing this use in the Middle Terrace, where previously such use was allowed only in the Upper Terrace development zone, would not generate new demand for recreation or place additional demand on existing recreation facilities. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.14.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks has no potential to negatively affect recreation. Construction of the crossing would not generate new demand for recreation or place additional demand on existing recreation facilities. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.14.2.5 Conclusions

None of the other proposed revisions to the CLRDP has any potential to result in changes in recreational facilities demand. None of the proposed CLRDP revisions, thus, has the potential to result in new significant recreation effects or a substantial increase in the severity of previously identified significant effects related to recreation, and therefore none of the revisions requires

further study. Furthermore, there are no changed circumstances or new information that would lead to new significant recreation effects or a substantial increase in the severity of significant effects related to recreation previously identified in the 2004 CLRDP FEIR.

4.15 Transportation/Traffic

4.15.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified five significant and one less-than-significant transportation/traffic impacts associated with the implementation of the CLRDP and/or its near-term projects. These impacts are summarized in Table 22 below.

Table 22. 2004 FEIR Transportation/Traffic Impacts

2004 CLRDP FEIR Impacts	Applicable CLRDP FEIR Mitigation Measures	CLRDP FEIR Significance Conclusion (With Mitigation)	Do proposed revisions result in new significant effects or a substantial increase in the severity of previously identified significant effects?
Impact 4.15-1: The addition of traffic from the short-term development program to the Mission Street / Bay Street intersection would increase the existing volume by 3.1 percent (i.e., more than the 3-percent threshold) at this signalized intersection, which is projected to operate at LOS E during the PM peak hour. The 3-percent threshold would be exceeded at this intersection when the project generates 143 new PM peak hour trips. This would be a significant impact.	4.15-1	Significant and Unavoidable	No
Impact 4.15-2: The addition of project-generated pedestrians to Delaware Avenue could result in an increase in hazards by increasing the potential for pedestrian conflicts with vehicles and bicyclists. This impact would occur on the 900-foot portion of the north side of Delaware Avenue when there is no sidewalk. Due to low level of pedestrian activity, the impact is considered less than significant.	4.15-2	Less than significant	No

<p>Impact 4.15-3: The addition of traffic from the short- and long-term development program to the Mission Street / Bay Street intersection would increase the existing volume by 7.3 percent (i.e., more than the 3 percent threshold) at this signalized intersection, which is projected to operate at LOS E during the PM peak hour under Existing Plus Short- and Long-Term Development Conditions. The 3 percent threshold would be exceeded at this intersection when the project generates 143 new PM peak hour trips. This would be a significant impact.</p>	<p>4.15-3</p>	<p>Significant and Unavoidable</p>	<p>No</p>
<p>Impact 4.15-4: The addition of traffic from the short- and long-term development program to the Mission Street / Chestnut Street intersection would increase the existing volume by 3.8 percent (i.e., more than the 3 percent threshold) at this signalized intersection, which is projected to operate at LOS F under Existing Plus Short- and Long-Term Development Conditions. The 3 percent threshold would be exceeded at this intersection when the project generates 272 new PM peak hour trips. This would be a significant impact.</p>	<p>4.15-4</p>	<p>Significant and Unavoidable</p>	<p>No</p>
<p>Impact 4.15-5: The entire development program under the CLRDP would cause total traffic volume to increase by between 5.0 and 5.9 percent (i.e., more than the 3-percent threshold) at the signalized Mission Street/Bay Street intersection, which is projected to operate at LOS E and F during the AM and PM peak hours, respectively, under 2020 Baseline Plus Project Conditions. This would be a significant impact.</p>	<p>4.15-5</p>	<p>Significant and Unavoidable</p>	<p>No</p>

<p>Impact 4.15-6: The proposed CLRDP in conjunction with other regional development would cause the AM and PM peak hour traffic to increase significantly at six study intersections, which would reduce the levels of service to unacceptable levels, a significant cumulative impact. This impact would occur both in the short term (2010) and in the long term (2020). The project’s contribution to this impact at five of the six affected intersections would be cumulatively considerable.</p>	<p>4.15-6</p>	<p>Significant and Unavoidable</p>	<p>No</p>
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Source: 2004 CLRDP FEIR

4.15.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

Proposed CLRDP Revisions Nos. 1 (Eliminate 80 Units of Housing) and 4 (New Emergency Access) require study to determine if they have the potential to result in new significant effects or a substantial increase in the severity of previously identified significant effects in the impact area of transportation/traffic, as indicated below in Table 23.

Table 23. Need for Further Study of Transportation/Traffic Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New emergency access
Cause substantial increase in traffic	X	—	—	—
Exceed level of service standards	—	—	—	—
Change in air traffic patterns	—	—	—	—
Increased hazards due to design	—	—	—	X
Inadequate emergency access	—	—	—	X
Inadequate parking capacity	X	—	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

4.15.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

The University's proposal to eliminate the program for 80 units of housing and reduce planned building construction by 25 percent would reduce the estimates of traffic generated by the Marine Science Campus contained in the 2004 CLRDP FEIR. According to the 2004 CLRDP FEIR and the traffic study undertaken by Fehr & Peers Associates, Inc, the near-term project of 42 apartments/townhouses would have generated 232 daily trips associated with the Marine Science Campus. The remaining 38 units of the 80-unit housing program would have generated an additional 218 daily trips.³³ Elimination of the 42-unit near-term housing project and its associated trips would reduce short-term trip generation associated with the project by 17.4 percent. Elimination of the remaining 38 units of housing from the long-term CLRDP building program would reduce trip generation by 218 trips, a reduction of 12 percent. Taken together, the elimination of plans for 80 housing units from the CLRDP building program would reduce trip generation by 450 daily trips, a reduction of 14.4 percent from that estimated for the entire CLRDP program in the 2004 CLRDP FEIR.

The reduction in traffic associated with the elimination of plans for 80 housing units from the CLRDP building program would neither change the conclusions of the 2004 CLRDP FEIR regarding project impacts nor change the mitigation measures set forth in that document to address identified impacts. Implementation of the CLRDP's revised short and long-range program would still result in both individually and cumulatively significant traffic impacts. However, the percentage of traffic contributed to any one intersection by implementation of the CLRDP would be reduced. In the case of Impact 4.15-5 where the actual percent contribution to an intersection's traffic is estimated, the estimate would have to be re-calculated at the time improvements to the Bay/Mission intersection are undertaken by the Caltrans and/or the City of

³³ This estimate of traffic generation assumed that because the proposed housing was to be located on campus and its use restricted to persons who worked on the Marine Science Campus, trip generation would be less than is normal for residential uses. Accordingly, Fehr & Peers Associates, Inc. used a trip generation factor that was 60 percent of the typical rate for apartment/townhouse-style housing in its analysis of the CLRDP traffic impacts. Contrary to the perception held by some that the existence of housing in the CLRDP building program was used in the 2004 CLRDP FEIR analysis as a basis for reducing overall trip generation, the FEIR actually only reduced the estimate of the amount of traffic that such housing would have otherwise generated if it had not been located in proximity to the jobs its residents would hold. As a result, elimination of plans for 80 housing units would not result in an increase of traffic to the Marine Science Campus but instead would result in a reduction.

Santa Cruz, in order to determine the University's appropriate fair share contribution for the cost of the intersection improvement.

4.15.2.2 New Middle Terrace/ YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR has no potential to negatively transportation/traffic. Construction of the berm would not generate new trips, affect air traffic patterns, create a new traffic hazard due to design, result in inadequate emergency access, or generate the need for new parking or reduce existing parking. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.15.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone has no potential to negatively affect transportation/traffic. Allowing this use in the Middle Terrace, where previously such use was allowed only in the Upper Terrace development zone, would not generate new trips, affect air traffic patterns, create a new traffic hazard due to design, result in inadequate emergency access, or generate the need for new parking or reduce existing parking. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.15.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks would not generate new trips, affect air traffic patterns, or generate the need for new parking or reduce existing parking. Construction of the crossing creates the potential for conflict between emergency vehicles and train traffic, but because of the infrequency of the need for emergency access and the infrequency of train service itself, this new impact would be less than significant. Construction of the crossing could require the temporary suspension of railroad service, but such suspension of service would be short term (i.e., less than one day) and could easily be coordinated with existing train service, which is limited to two to three times each week. This new impact would be less than significant. The crossing would improve emergency access to the site. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.15.2.5 Conclusions

In conclusion, none of the proposed CLRDP revisions has the potential to result in new significant traffic effects or a substantial increase in the severity of previously identified significant effects related to transportation/traffic, and therefore none of the revisions requires further study. Furthermore, there are no changed circumstances or new information that would lead to new significant traffic effects or a substantial increase in the severity of significant effects related to transportation/traffic previously identified in the 2004 CLRDP FEIR.

4.16 Utilities, Services Systems, and Energy

4.16.1 Summary of 2004 FEIR Conclusions and Analysis

The 2004 CLRDP FEIR identified one significant utility, service system and energy impact associated with the implementation of the CLRDP and/or its near-term projects. This impact is summarized in Table 24 below.

Table 24. 2004 FEIR Utilities, Service Systems, and Energy Impacts

2004 CLRDP FEIR Impacts	Applicable CLRDP FEIR Mitigation Measures	CLRDP FEIR Significance Conclusion (With Mitigation)	Do proposed revisions result in new significant effects or a substantial increase in the severity of previously identified significant effects?
Impact 4.16-1: The CLRDP, in conjunction with other existing development and probable future growth in the service territory of the SCWD, would result in a demand for potable water that would require development of new water supply sources, and the development of these sources could result in significant adverse impacts.	4.16-1	Significant and Unavoidable	No

Source: 2004 CLRDP FEIR

4.16.2 Analysis of Proposed CLRDP Revisions, Changed Circumstances, and New Information

None of the proposed CLRDP revisions requires study to determine if it has the potential to result in new significant effects or a substantial increase in the severity of previously identified

significant effects in the impact area of utilities, service systems, and energy, as indicated below in Table 25.

Table 25. Need for Further Study of Utilities, Services Systems, and Energy Issues

2004 FEIR Issue Areas	CLRDP Revisions Needing Further Study			
	#1. Eliminate 80 Units of Housing from Plan	#2. New Middle Terrace/ YLR Berm	#3. Allow Equipment Storage and Maintenance Facilities on Middle Terrace	#4 New Emergency Access
Exceed RWQCB wastewater treatment requirements	—	—	—	—
Require construction of new or expanded wastewater treatment capacity	—	—	—	—
Require construction of new or expanded stormwater drainage capacity	—	—	—	—
Water supply	—	—	—	—
Determination of adequate service capacity	—	—	—	—
Adequate landfill capacity	—	—	—	—
Comply with solid waste regulations	—	—	—	—
Result in the wasteful, inefficient, or unnecessary consumption of energy	—	—	—	—

Note: “—” indicates no study necessary; “X” indicates a need for study

4.16.2.1 Elimination of 80 Units of Housing (CLRDP Revision No. 1)

The University’s proposal to eliminate the program for 80 units of housing and reduce planned building construction by 25 percent would not result in a reduction in the population associated with the CLRDP building program. As noted in the discussion above regarding population and housing, the CLRDP’s population projection would remain constant and the population that would have resided in the 80 on-campus housing units would instead locate in the City or County of Santa Cruz. Accordingly, while the direct demand for utilities such as water, sewer, and solid waste disposal from the campus would be reduced by the reduction of housing on the campus, the overall demand on services within the region—and possibly within the water service area—would not change, since those who would have been housed on the campus would likely still

reside in the region. Likewise with energy, the direct demand for energy from the campus would be reduced in that the elimination of program for 80 units of housing would reduce delivery demands and conceivably avoid the need for future transmission capacity upgrades to the Marine Science Campus, but overall demand within the region would remain constant.

The 2004 CLRDP FEIR concluded that implementation of the CLRDP would not result in a significant impact on utilities, service systems, and energy. It did, however, conclude that there would be a cumulatively significant impact on the demand for potable water. These conclusions and the mitigation measures set forth to address cumulative impacts do not change with the elimination of program for 80 units of housing from the CLRDP building program.

4.16.2.2 New Middle Terrace/ YLR Berm (CLRDP Revision No. 2)

The addition of CLRDP Implementation Measure 3.5.8 requiring the University to construct a berm separating development in the Middle Terrace development zone from YLR has no potential to negatively affect utilities, services systems, or energy. Construction of the berm would not require the extension of sewer or water service, would not generate new demand for solid waste capacity, and would not result in the wasteful or inefficient use of energy. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.16.2.3 Allow Equipment Storage and Maintenance Facilities on Middle Terrace (CLRDP Revision No. 3)

The proposed change in locational restrictions to allow equipment storage and maintenance facilities in the Middle Terrace development zone has no potential to negatively affect utilities, services systems, and energy. Allowing this use in the Middle Terrace, where previously such use was allowed only in the Upper Terrace development zone, would not require utilities, service systems, or energy different than that analyzed in the 2004 CLRDP FEIR. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.16.2.4 New Emergency Access (CLRDP Revision No. 4)

The proposed addition of CLRDP Implementation Measure 5.1.7 requiring the University to collaborate with the City of Santa Cruz on the construction of an at-grade emergency crossing (i.e., equipped with bollards) at Shaffer Road and the Union Pacific Railroad (UPRR) tracks has no potential to affect utilities, services systems, and energy. Construction of the crossing would not require the extension of sewer or water service, would not generate new demand for solid waste capacity, and would not result in the wasteful or inefficient use of energy. This proposed revision does not change the conclusions of the 2004 CLRDP FEIR.

4.16.2.5 Conclusions

In conclusion, the proposed changes do not result in new significant utility, service system, or energy effects or a substantial increase in the severity of previously identified significant effects. Furthermore, there are no changed circumstances or new information that would lead to new significant utility, service system, or energy effects or a substantial increase in the severity of significant effects related to utilities, service systems, or energy previously identified in the 2004 CLRDP FEIR.

4.17 Growth-Inducing Impacts

The 2004 CLRDP FEIR evaluated the potential growth-inducing effects of the CLRDP. With the one possible exception discussed below, the CLRDP revisions covered by this addendum could be expected to have no growth-inducing effects." "The FEIR noted that several elements of the 2004 CLRDP would serve to limit growth by reinforcing a stable urban boundary at the City of Santa Cruz city limit. These elements include:

- The land use plan clusters complementary uses, retaining undeveloped open lands, habitat areas, and buffers adjacent to neighboring agricultural uses.
- The proposed project would provide infrastructure to serve the needs of the projected campus population.
- Policies in the land use element limit the size of utility lines onsite to serve only the projected needs of the campus and establish a utility prohibition zone where new sewer or water utility lines would not be allowed.
- Circulation improvements would be limited and parking would be regulated through use of parking permits and time-limited parking.

None of these features of the 2004 CLRDP would be altered by the proposed changes described in this addendum.

The 2004 CLRDP FEIR also noted that the 2004 CLRDP would not result in substantial population or employment growth or a concentration of population or employment. As discussed in Section 4.12 above, the proposed CLRDP changes would also not result in substantial population or employment growth or a concentration of population or employment.

The 2004 CLRDP FEIR noted that some secondary employment would be induced by the implementation of the CLRDP in local retail and other service sectors. It noted that the amount would not be large and would be within the growth parameters outlined in current local general plans. It concluded that the economic stimulus of institutional investment such as that represented by the CLRDP could be interpreted as a beneficial economic impact. As the proposed CLRDP changes have no effect on building program for marine research and education uses, the conclusions of the 2004 CLRDP FEIR would not change.

The proposed CLRDP revisions would eliminate 80 units of support housing from the campus. Because no change is proposed in the number of persons expected to work and study on campus, the reduction in on-campus support housing would not affect population, employment, or demand for public facilities and services in the area. Elimination of 80 units of on-campus housing could be expected to increase demand for housing in surrounding areas. Such an increase in demand would not have physical effects on the environment, although it could have social and economic effects on surrounding communities. The University neither has nor knows of specific plans to develop housing to meet this demand. The demand could be expected to arise gradually as the campus develops. Housing to meet the demand may exist at the time the need arises or may be developed in response to the need. Such housing may be located in the City of Santa Cruz or in nearby communities. Under these circumstances, it is not possible to evaluate or even identify possible environmental effects of any such future housing. Similarly, lacking any information about specific development proposed to meet increased housing demand, it is not possible to evaluate secondary effects such as those on air quality or traffic. Any attempt to do so would be mere speculation and thus beyond the appropriate scope of this evaluation.

5. CONCLUSION

As analyzed in Part 4 above, none of the conditions or circumstances that would require preparation of a Subsequent or Supplemental EIR pursuant to Public Resources Code Section 21166 exists in connection with the proposed CLRDP revisions. There have not been any substantial changes with respect to the circumstances under which the CLRDP would be undertaken that require major revisions in the 2004 CLRDP FEIR. In addition, there is no new information of substantial importance, which was not known and could not have been known at the time the 2004 CLRDP FEIR was certified as complete, showing that new or more severe environmental impacts not addressed in the 2004 CLRDP FEIR will occur, that mitigation measures or alternatives previously found infeasible would in fact be feasible, or that new or

different mitigation measures or alternatives would substantially reduce one or more significant impacts. The proposed CLRDP revisions are supported by the analysis and conclusions presented in the 2004 CLRDP FEIR and this Addendum. None of the conditions warranting a Subsequent or Supplemental EIR has been met.

6. SUMMARY OF 2004 CLRDP FEIR MITIGATION MEASURES CITED

A summary of 2004 CLRDP FEIR mitigation measures that are cited in this addendum are summarized in Table 26 below.

Table 26. Summary of 2004 CLRDP FEIR Mitigation Measures Cited in Addendum

2004 CLRDP FEIR Mitigation Measure No.	Description of Mitigation Measure	Addendum Section/Page Cited (hyperlink)
4.3-1	<p>Project-Specific Mitigation Measure 4.3-1: The University shall require construction contractors to implement a dust abatement program to reduce the contribution of project construction to local respirable particulate matter concentrations. Elements of this program shall include the following as appropriate for each project:</p> <ul style="list-style-type: none"> • Water all active construction areas at least twice daily. Frequency shall be based on the type of operation, soil, and wind exposure. • Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). • Pave, apply water two times daily, or apply non-toxic soil stabilizers to all unpaved access roads, parking areas, and construction staging areas. • Sweep daily with water sweepers any paved access roads, parking areas, and staging areas at construction sites. • Sweep streets daily with water sweepers if visible soil material is carried onto adjacent public streets. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas or previously graded areas left inactive for ten days or more. • Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). • Limit traffic speeds on unpaved roads to 15 miles per hour. 	<p>Section 4.3.2.2, page 31 Section 4.3.2.3, page 32 Section 4.3.2.4, page 32</p>

	<ul style="list-style-type: none"> • Install sandbags or other erosion control measures to prevent silt runoff to public roadways. • Replant vegetation in disturbed areas as quickly as possible. • 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. • 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. 	
<p>4.4-1</p>	<p>Project-Specific Mitigation Measure 4.4-1: For all projects proposed in the upper terrace under the CLRDP, the University will implement the following:</p> <ul style="list-style-type: none"> • A pre-construction survey for CRLF will be conducted of all areas proposed for grading and construction by a qualified biologist, approved by the USFWS. If CRLF are observed, grading activities shall be postponed and USFWS shall be consulted to determine appropriate actions to avoid impact. Consultation with the USFWS will result in either a determination of the need to obtain a permit or in the identification of measures to avoid take of the individual(s). • The biological monitor shall also conduct meetings with the contractor(s) and other key construction personnel to describe the importance of the species, the need to restrict work to designated areas, and to discuss procedures for avoiding harm or harassment of wildlife encountered during construction. 	<p>Section 4.4.2.4, page 37</p>
<p>4.4-2</p>	<p>Project Specific Mitigation Measure 4.4-2: UCSC shall ensure that construction activities avoid disturbing nests of raptors (and other special-status birds). If ground-disturbing activities are scheduled to occur during the breeding season (February 1 through August 31), the following measures are required to avoid potential adverse effects on nesting special-status raptors and other birds:</p> <ul style="list-style-type: none"> • A qualified wildlife biologist will conduct pre-construction surveys of all potential nesting habitat. For burrowing owls, such surveys will follow the most recent CDFG Burrowing Owl Survey Protocol and Mitigation Guidelines.⁸⁹ • If active raptor nests are found during pre-construction surveys, a no-disturbance buffer acceptable in size to CDFG will be created around active raptor nests and nests of any other special-status birds during the breeding season, and maintained until it is determined that all young have fledged. Raptor or other bird nests initiated during construction are presumed to be unaffected, and no buffer is necessary. However, the “take” of any individuals will be prohibited. • If pre-construction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction/restoration period, no further mitigation is required. Trees and shrubs that have been determined to be unoccupied by special-status birds or that are located outside the no-disturbance buffer for active nests may be removed. 	<p>Section 4.4.2.2, page 35</p>
<p>4.5-1</p>	<p>Project-Specific Mitigation Measure 4.5-1: If human remains are discovered during the construction of a development project under the</p>	<p>Section 4.5.2.2, page 39</p>

	<p>CLRDP, the University and/or its employees shall notify the Santa Cruz County Coroner’s Office immediately. Upon determination by the County Coroner that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission, pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and the County Coordinator of Indian Affairs and appropriate Native American consultation shall be conducted, as outlined by PRC 5097.98. Implementation Measure 3.9.1, Construction Monitoring, as identified in the CLRDP, shall also apply. UCSC will be responsible for implementing this mitigation measure.</p>	<p>Section 4.5.2.4, page 40</p>
<p>4.11.1</p>	<p>General Mitigation Measure 4.11-1: Prior to developing marine research and education facilities on the middle terrace east of McAllister Way, or additional support housing on the upper terrace, the University shall conduct a project-specific noise analysis. Project-level mitigation measures shall be incorporated into the design of these facilities to reduce potentially significant noise impacts, if necessary.</p>	<p>Section 4.11.2.3, page 56</p>
<p>4.11-3</p>	<p>Project-Specific Mitigation Measure 4.11-3: As part of the design of the Shared Campus Warehouse and Laydown Facility, the University shall implement noise control measures to reduce the resulting noise levels to 65 DNL or lower at future campus housing planned for the upper <u>middle</u> terrace development area. Control measures incorporated into the design and location of the Shared Campus Warehouse and Laydown Facility may include but not be limited to the following:</p> <ul style="list-style-type: none"> • The University shall orient the warehouse so as to shield noise generated by activity at the Shared Campus Warehouse and Laydown Facility, from potential sites of future campus housing on the upper <u>middle</u> terrace development area. • The University shall incorporate an easy turn-around for trucks such that they can avoid maneuvering in reverse and thus minimize back-up alarm noise. • Once the future campus housing planned for the upper <u>middle</u> terrace becomes inhabited, the University shall limit noisy outdoor activities (such as those involving the use of heavy equipment) at the warehouse and laydown area from 10:00 PM to 6:00 AM all days of the week. • The University shall construct a wall around the laydown area, consistent with CLRDP guidelines, to attenuate noise levels at future campus housing planned for the upper <u>middle</u> terrace development area. The wall shall be completed before the future campus housing planned for the upper <u>middle</u> terrace is occupied. 	<p>Section 4.11.2.3, pages 56 thru 58</p>
<p>4.11-4</p>	<p>General Mitigation Measure 4.11-4: Prior to the initiation of construction, the University shall approve a construction noise mitigation program including but not limited to the following:</p> <ul style="list-style-type: none"> • The University shall require that construction activities be limited to a schedule that minimizes disruption to noise-sensitive uses on the project site and in the vicinity through implementation of the following: <ul style="list-style-type: none"> – Construction activities during daytime and evening hours (7:00 AM to 10:00 PM) shall not occur within 150 feet of sensitive receptors, when feasible. Construction activities within 500 feet of sensitive receptors activities shall not occur 	<p>Section 4.11.2.2, page 56 Section 4.11.2.3, page 56 Section 4.11.2.4, page 59</p>

	<p>during nighttime hours (10:00 PM to 7:00 AM).</p> <ul style="list-style-type: none"> - Whenever possible, academic and administrative staff, as well as residents who will be subject to construction noise, shall be informed one week before the start of each construction project. - Loud construction activity as described above within 150 feet of an academic or residential use shall, to the extent feasible, be scheduled during holidays, spring break, or summer break. <ul style="list-style-type: none"> • To reduce noise impacts from construction, the University shall require that construction contractors muffle or otherwise control noise from construction equipment through implementation of the measures below. The effectiveness of these measures is quantified in Table 4.11-4 above. <ul style="list-style-type: none"> - Internal combustion engines used for any purpose at the construction sites shall be equipped with a muffler of a type recommended by the manufacturer. - Equipment used for construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible); - Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. Such mufflers can lower noise levels from the exhaust as much as 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures such as using drilling equipment rather than impact equipment shall be implemented whenever feasible. - Stationary noise sources shall be located as far from sensitive receptors as feasible. If they must be located near sensitive receptors, they shall be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds. • The University shall require that a temporary wooden wall be placed around construction activity areas that are within 150 feet of sensitive receptors to provide additional noise attenuation, where feasible. The wall should impede the direct line of site between the noise sources and sensitive receptors. • The University shall require that construction-related material haul trips access the campus via Natural Bridges Drive and Delaware Avenue in order to minimize noise exposure to residential land uses. • The University shall identify potential noise impacts related to construction of long-term projects proposed under the CLRDP, and develop project-specific noise mitigation measures as may be necessary. The University shall take into account the location of the five campus facilities that will have been developed in the near-term as well as off-campus developments nearby. The analysis shall also take into account the sequence in which long-term projects are to be constructed and shall identify appropriate mitigation, as may be 	
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	<p>required. These future facilities may be sensitive receptors or may act as barriers to noise approaching other sensitive receptors.</p>	
<p>4.11-5</p>	<p>Project-Specific Mitigation Measure 4.11-5: The University shall require that construction contractors limit construction activity for the Shared Campus Warehouse and Laydown Facility to the hours between 7:00 AM and 10:00 PM all days of the week.</p>	<p>Section 4.11.2.3, page 56</p>